

COORDINATED MONITORING PROGRAM FOR GUADALUPE RIVER WATERSHED MERCURY TMDL

AGREEMENT No. A4123A

MONITORING CYCLE 2: 2018-2023

Prepared for

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1 INTRODUCTION

The Guadalupe River watershed covers approximately 170 square miles, draining portions of the eastern Santa Cruz Mountains to San Francisco Bay, and contains numerous tributary creeks and several reservoirs (Figure 1-1). The Guadalupe River watershed lies within a region naturally enriched in mercury. Mercury found in the area was mined and used as part of the gold extraction process during California's gold rush in the 1800s. Over 40 million kilograms of mercury were extracted during operation of the mines (1850 to 1975).

The U.S. Environmental Protection Agency (USEPA) approved the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) recommendations to add streams and reservoirs in the Guadalupe River watershed to the 303(d) List of Impaired Water Bodies in 1998 for elevated mercury concentrations including Guadalupe River, Alamilos Creek, Almaden Reservoir, Calero Reservoir, Guadalupe Creek, and Guadalupe Reservoir. Lake Almaden and Lexington Reservoir were proposed for listing during the 2008 cycle (Austin et al. 2008). As a result, the SFRWQCB initiated preparation of a total maximum daily load (TMDL) for mercury in listed streams in the watershed (Austin et al. 2008). Preparation of the TMDL was supported by Tetra Tech who prepared multiple reports including a data collection report (Tetra Tech 2005a) and a conceptual model report (Tetra Tech 2005b) that summarized available data and described mercury loadings from tributaries and transport via the Guadalupe River to San Francisco Bay.

As specified in the SFRWQCB 13267 Approval Letter dated October 24, 2018, the project team consisting of the County of Santa Clara, the Guadalupe Rubbish Disposal Company, Inc., the Midpeninsula Regional Open Space District, and the Santa Clara Valley Water District (Valley Water) was to prepare a monitoring report covering Cycle 2 (October 2018 to September 2023) of the TMDL program.

The SFRWQCB 13267 Approval Letter required that the monitoring program include submittal of a Monitoring Plan (Tetra Tech 2018) that included monitoring of mercury in stream fish and monitoring of the mercury load to San Francisco Bay. A draft report presenting the results of the Cycle 2 monitoring program is due on January 30, 2024.

Key questions to be addressed as part of the monitoring program include:

1. What is the mercury load from Guadalupe River delivered to San Francisco Bay in large storms?
2. What component of these storm loads are from legacy mining and urban stormwater runoff sources?

3. What is the temporal trend in fish tissue mercury concentrations in remediation effectiveness indicators in Lake Almaden, and the Guadalupe, Almaden, and Calero Reservoirs, Alamitos and Guadalupe Creeks, and the Guadalupe River?
4. If there is a temporal trend in fish tissue mercury concentrations at reference sites, how does it inform interpretation of remediation effectiveness indicators?

This monitoring report covers Cycle 2 of the TMDL program. Storm sampling was conducted between February 3 and 21, 2019, and between January 4 and 10, 2023. Fish tissue sampling was conducted between August and October 2019, July 2021, and June 2023.

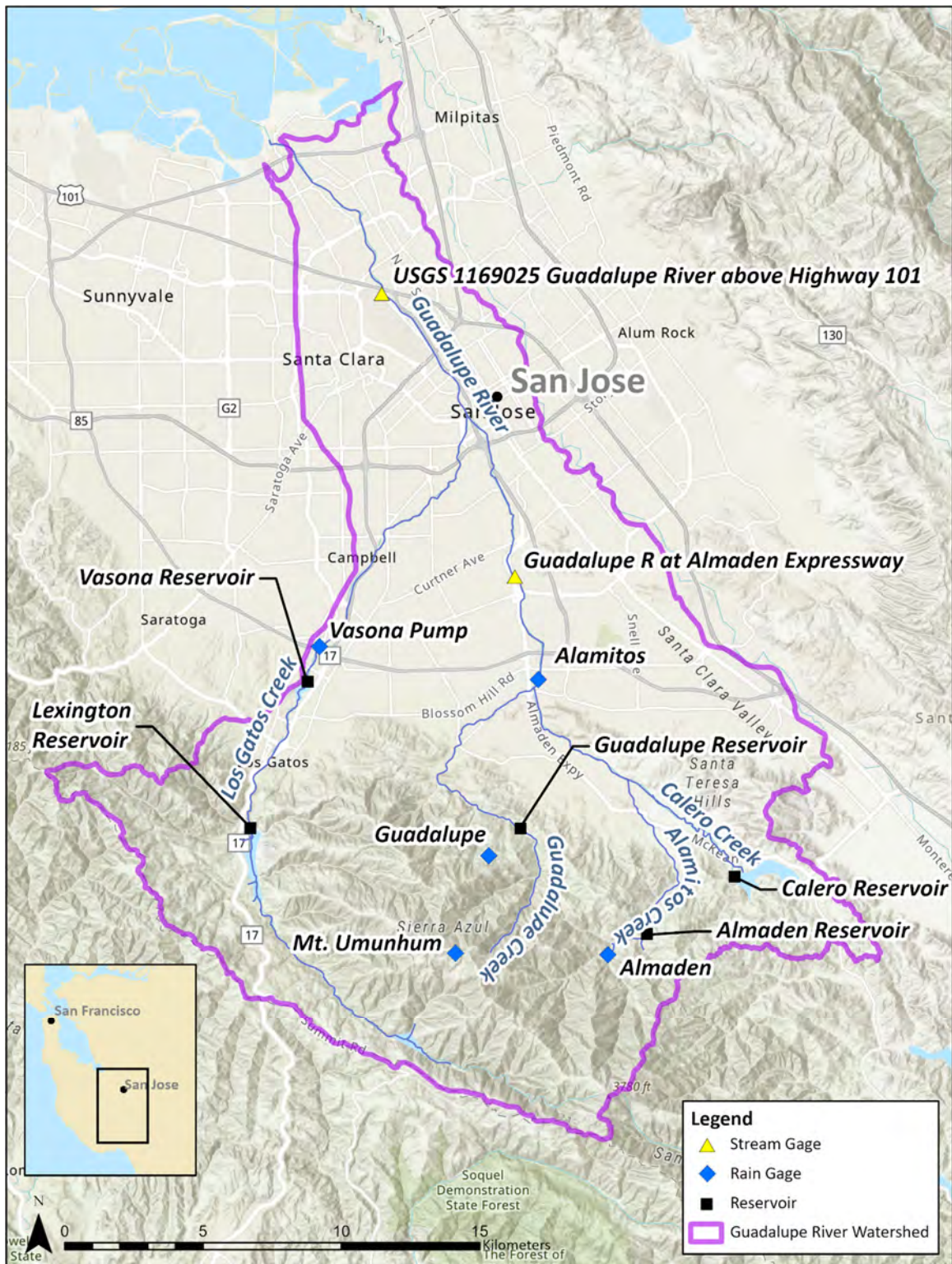


Figure 1-1 Guadalupe River watershed including location of reservoirs, stream gages, and precipitation gages.

2 METHODS

2.1 MOBILIZATION CRITERIA

Upon approval of the Monitoring Plan on October 24, 2018, by the SFRWQCB, Tetra Tech initiated tracking of monitoring triggers including rainfall to date, reservoir status, predicted rainfall from storms in the upper watershed, and predicted flow at the United States Geological Survey (USGS) monitoring gage above Highway 101. Two primary criteria had to be met before storms were monitored including cumulative rainfall exceeding seven inches, and Almaden Reservoir near capacity (1,260 acre-feet).

The SFRWQCB's California Water Code Section 13267 letter of 29 June 2017 specifies the required monitoring for Cycle 2 in the Guadalupe River watershed. Two storms were to be monitored in each of two water years for a total of four storms over the five-year period from water year 2019 through 2023 (i.e., October 1, 2018, through September 30, 2023). Water samples were to be collected during storms when environmental conditions were expected to meet the mobilization criteria specified in Table 2-1 and Figure 2-1.

Table 2-1
Mobilization Criteria

Criteria	Tier	Threshold	Comment
1. Predicted stormflow at USGS Guadalupe River Above Highway 101 gage To comply with this criterion, the field sampling team will evaluate NOAA's California Nevada River Forecast Center (CNRFC) forecast flow.	1	>1,800 cfs	50% storms exceed this volume
	2	>1,920 cfs	40% storms exceed this volume
	3	>3,610 cfs	2-year return interval
2. Storm forecast for upper watershed. To comply with this criterion, the project team will evaluate the forecast for the upper watershed, which is defined as the catchment area above the four reservoirs in the Guadalupe River watershed (Table 2-3). The Weather Prediction Center (WPC), accessible through the CNRFC website, provides quantitative precipitation forecasts (QPF) for the region at multiple time scales of up to one week.	1	N/A	Assures rainfall at mines
	2	>6 inches	
	3	>12 inches	
3. 6-hour rainfall forecast of greater than 2-inches at Quicksilver County Park. To comply with this criterion, the project team will evaluate whether the following forecasts exceed the criteria. The WPC, accessible through the CNRFC website, provides QPF for the region at multiple time scales of up to one week. In addition, using data available on the NOAA website, Tetra Tech has developed a tool that can be used to forecast rainfall at a specific geographic location such as Quicksilver County Park. Both tools will be used to estimate when a 6-hour rainfall of greater than 2-inches is likely to occur.	1	>0.5 inches	Assures rainfall at mines
	2 & 3	>2 inches	Assures significant rainfall at mines

**Table 2-1
Mobilization Criteria**

4. Almaden Reservoir is near capacity. To comply with this criterion, the project team will evaluate whether Almaden Reservoir's capacity exceeds 10 percent based on the Valley Water's ALERT system. Given the currently limited capacity and large catchment area, any storm greater than 2-inches is likely to fill Almaden Reservoir.	1	N/A	
	2 & 3	>10% full	

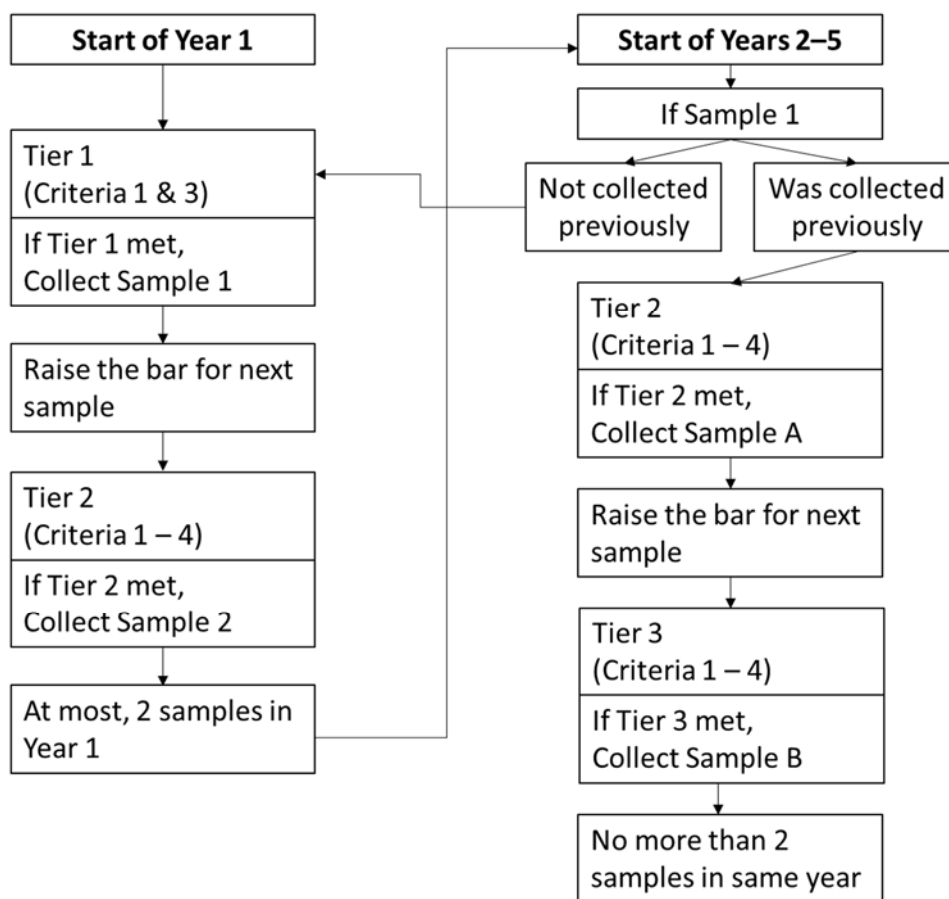


Figure 2-1 Flow chart for application of mobilization criteria. Criteria become more stringent as more storms have been sampled.

2.2 STORM SAMPLING

Sampling equipment and sample bottles were cleaned by the analytical laboratory to remove any traces of mercury or metals prior to the start of the rainy season. Sampling equipment was double bagged at the laboratory and kept sealed until sampling began.

Once the initial mobilization criteria (7-inches cumulative rainfall and Almaden Reservoir near capacity) were met, the CNRFC website was monitored daily when storms were forecast. When the CNRFC website indicated that a storm was likely to meet

or exceed the mobilization criteria specified in Table 2-1 and Figure 2-1, the survey team was mobilized. Once the decision to mobilize was made, a sampling schedule based on the predicted flow at the USGS gage above Highway 101 was prepared to enable collection of four samples during the rising leg of the hydrograph and four samples during the falling leg. While in the field, the study team periodically monitored both the CNRFC and U.S. Geological Survey (USGS) websites to make any adjustments to sample timing.

During each sampled storm, a D-95 sampler and crane system was set up adjacent to the USGS Hwy 101 monitoring gage along the thalweg of the Guadalupe River on the downstream side of the access road to the San Jose Mineta International- Airport (Figure 2-2 and Figure 2-3).



Figure 2-2 D-95 crane set-up adjacent to USGS monitoring gage above Highway 101.



Figure 2-3 View of USGS gage Guadalupe River above Hwy 101 on north side of Airport Parkway bridge and D-95 sampler, looking upstream.

A clean set of equipment and sample bottles were used for each storm. Blanks were collected from all sampling equipment prior to the start of sampling for each storm. An initial deployment of the D-95 sampler was used to rinse all sampling equipment prior to collection of each sample.

Due to the volume of water needed to be collected for all proposed analyses, multiple deployments of the D-95 sampler were required. The D-95 sampler was lowered and raised at a constant rate to ensure uniform sampling through the water column. Water from each deployment was transferred from the sampler to a pre-cleaned carboy using the clean hands-dirty hands technique (EPA method 1669) until sufficient water (approximately three liters) to collect all samples was obtained. During sample collection using the clean hands-dirty hands technique, the water in the carboy was swirled to ensure uniformity of the water.

Water samples were analyzed for total mercury, dissolved mercury, methylmercury, and total suspended solids (TSS) by Eurofins Specialty Metals Testing in Seattle, WA. Analytical methods and method detection limits (MDL) and reporting limits (RDL) are provided in Table 2-2.

**Table 2-2
Analytical Methods and Detection Limits**

Analyte	Medium	Method	MDL	RDL
Total Mercury	Water	EPA 1631E	0.079 ng/L	0.50 ng/L
Methylmercury	Water	EPA 1630	0.022 ng/L	0.050 ng/L
Total Suspended Solids	Solids	SM 2540D	10 mg/L	10 mg/L
Total Mercury	Fish tissue	EPA 1631B	0.5 ng/g	1.0 ng/g

2.2.1 LOAD CALCULATION

Two approaches were used to calculate storm loadings: two-step approach and direct calculation, based on equations derived from the field sampling data and measured flow the USGS gage above Highway 101.

The two-step approach involved estimation of TSS concentrations based on flow observed at 15-minute intervals at the USGS gage. The total mercury concentration was then estimated from the TSS-mercury relationship. The resulting mercury concentrations (ng/L) were then multiplied by the flow (cfs converted to liters per second) to yield ng/s for each 15-minute interval. The instantaneous masses were then converted to kg/15 minutes and summed over the duration of the storm to yield an estimated load.

In the direct calculation method, total mercury concentrations were calculated directly from measured flow at the USGS gage and the mercury-flow relationship. These concentrations (ng/L) are then multiplied by the flow (cfs converted to liters per second) to yield ng/s for each 15-minute interval. The instantaneous masses were then converted to kg/15 minutes and summed over the duration of the storm to yield an estimated load. This method is consistent with the method used by McKee et al. (2018).

A similar approach was used to estimate loads based on daily average flows and daily average suspended sediment concentrations (SSC) at the USGS gage above Highway 101.

2.3 FISH COLLECTION

Fish sampling was initially planned for August - October 2019 with a second collection effort in July 2021. However, due to drought conditions that limited collection activities in 2021, a third sampling event in June 2023 was conducted to provide a second round of sampling at all sites.

Fish sampling in 2019 and 2021 was conducted under a California Department of Fish and Wildlife (CDFW) Scientific Collecting Permit (SCP #S-183100007-18311-001), in accordance with a National Marine Fisheries Service (NMFS) 4(d) permit (#22546) to allow for incidental take of steelhead. Sampling in 2023 was conducted under CDFW, Specific Use SCP (S-183100007-18311-001-02), and a NMFS 10(a)1(A) permit (16417-3M).

Sampling in the Guadalupe River watershed occurred within four sub-watersheds: Alamitos Creek, Guadalupe Creek, Guadalupe River, and Los Gatos Creek. Almaden Lake (an in-channel lake on Alamitos Creek) was also sampled (Figure 2-4). Los Gatos Creek was selected as a reference system as it did not have historical mercury mining operations that occurred in the other systems sampled. A three-character code was used to designate each sampling location (Table 2-3).

Table 2-3
Fish Survey Locations

Site	Abbreviation	Latitude	Longitude
Los Gatos Creek at Lincoln Ave.	GCL	37.18457	-121.542
Guadalupe River at Foxworthy Ave.	GRF	37.27821	-121.878
Guadalupe River at Coleman Ave.	GRC	37.33454	-121.899
Alamitos Creek at Harry Rd.	ACR	37.20153	-121.829
Alamitos Creek at Graystone Ln.	ACG	37.22247	-121.851
Guadalupe Creek at Singletree Wy.	GCR	37.23311	-121.899
Almaden Lake	LAL	37.24015	-121.870

The goal of this effort was to secure 20 individuals of the target species within a particular size class (50 -150 mm at fork-length) at each sampling location during each sampling year. California roach (*Lavinia symmetricus*, age 1+) were the target species at all sites except for Almaden Lake, where largemouth bass (*Micropterus salmoides*, age 0+) were targeted.

Sampling by a team of 2 to 3 biologists started soon after sunrise and continued while conditions stayed within the associated project permit limits. Fish sampling efforts were primarily constrained by temperature thresholds and steelhead (*Oncorhynchus mykiss*) occurrence.

Seine nets (10-foot by 4-foot with 1/8" mesh) were the primary method used to collect fish at stream sampling sites. Seine net sampling was supplemented with dip nets and minnow traps as necessary. While electrofishing (Smith-Root LR-24 backpack electrofisher) was an anticipated and permitted method of capturing target fish, it was infrequently utilized as a method due to temperature constraints. Electrofishing was led by an experienced fisheries biologist and followed the National Marine Fisheries Services' (NMFS) *Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act* (NMFS 2000).

Descriptions of fish sampling efforts are provided in Appendix B.

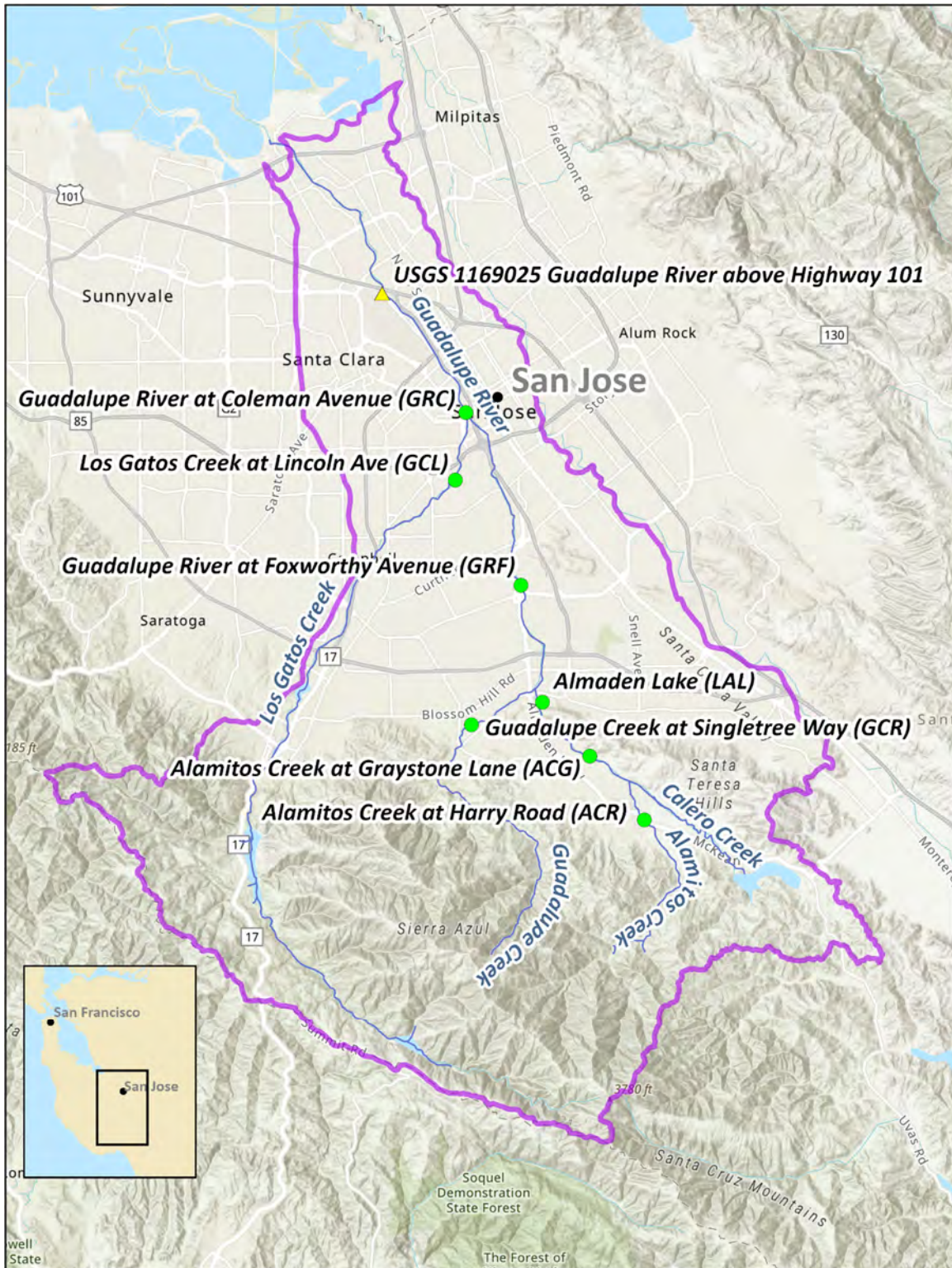


Figure 2-4 Fish collection locations within the Guadalupe River watershed.

2.3.1 TEMPERATURE CONSTRAINTS

Permit conditions limited electrofishing to water temperatures at or below 18°C and precluded all sampling methods when water temperatures exceeded 21°C due to the potential for stress to steelhead.

2.3.2 STEELHEAD AVOIDANCE CONSTRAINTS

Sampling dates were selected based on the CDFW and NMFS environmental work window for federally threatened Central California Coast steelhead (June 1 through November 30), outside of the typical steelhead migration period.

2.3.3 FISH PROCESSING

During the sampling events in 2019 and 2023, the first 20 fish of the target species at each survey site were identified, weighed, and measured (fork-length) in the field and placed on ice before being frozen in a laboratory setting prior to submission for mercury analyses. Non-target fish were identified, measured, and weighed and returned to the stream. Due to the limited stream flow in 2019 as a result of extreme drought conditions, limited numbers of target fish were collected. These fish were frozen and retained until a decision on whether to analyze them was made. Retaining the fish from 2019 in a frozen condition was not expected to alter total mercury concentrations in the fish samples as total mercury does not degrade and freezing prevents decay of the tissue. Based on discussions with Valley Water, the fish from the 2019 survey were submitted for analysis along with the 2023 fish shortly after they were collected. All samples were analyzed for total mercury.

3 RESULTS

Two monitoring programs were conducted during the Cycle 2 sampling: storm sampling to assess loading, and fish sampling to assess mercury burdens. Each component is discussed in the following subsections.

3.1 STORM SAMPLING

Flows, recorded at 15-minute intervals, in the Guadalupe River at USGS gage #11169025 were obtained from the USGS site for the full reporting period (water years 2019 through 2023) (Figure 3-1). Multiple storms with flows exceeding 2,000 cfs occurred during water years 2019 and 2023 and met mobilization criteria (Table 2-1 and Figure 2-1). Flows exceeding 500 cfs in water years 2020 through 2022, however, were generally infrequent due to prolonged drought conditions, with only two flow events exceeding 2,000 cfs during that period.

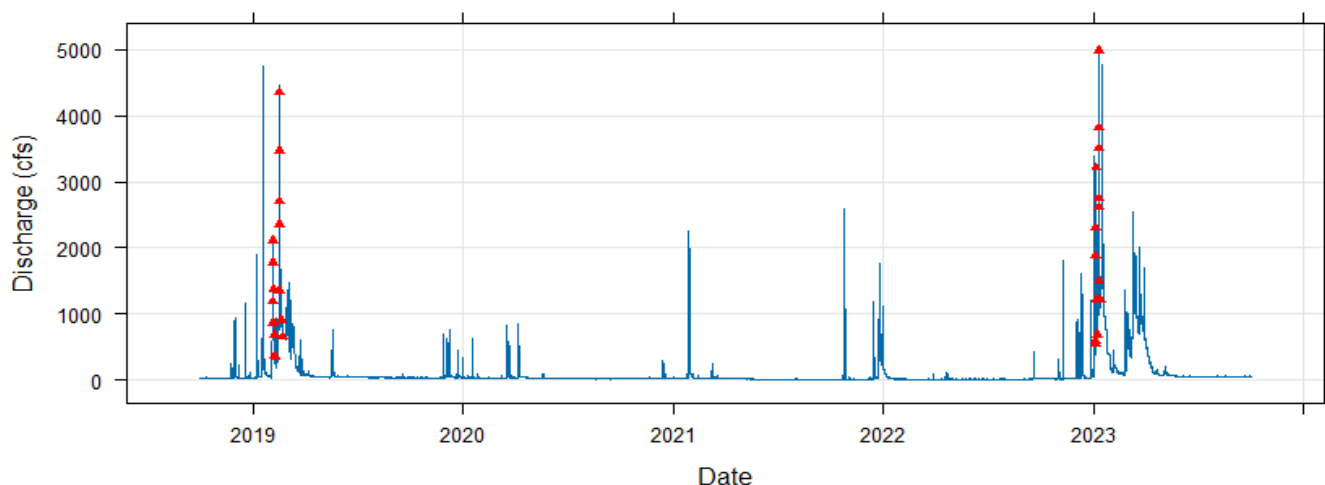


Figure 3-1 Flow hydrograph for Guadalupe River at USGS gage 11169025 above Highway 101 during 2019 through 2023. Red triangles indicate sample collection times.

3.1.1 MOBILIZATION

During water year 2019, cumulative rainfall exceeded seven inches throughout the upper watershed in mid-January (Figure 3-2 Table 3-1). Reservoir capacity was below 50 percent in all reservoirs prior to the storm on January 15. Peak 6-hour rainfall exceeded 2.3 inches on January 16 at the Almaden (2080), Guadalupe (1526), and Mt Umunhum (2081) gages. These storm intensities are considered capable of initiating mercury mobilization in the watershed.

The January 15 storm resulted in a rapid increase in reservoir capacities with Almaden Reservoir being near full capacity on January 16 (Figure 3-3, Table 3-2). The remaining

reservoirs were approximately 50% full prior to a large storm forecast for February 3 (hereafter referred to as Storm A) and were of similar magnitude prior to a second large storm (Storm B) on February 13.

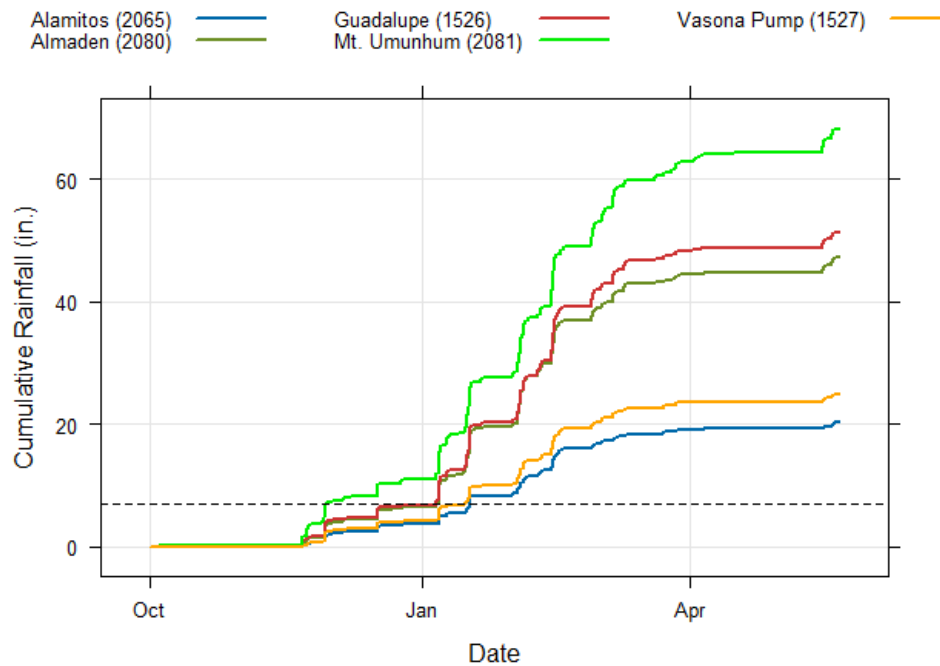


Figure 3-2 Cumulative rainfall at Valley Water ALERT rain gages during water year 2019. Dashed line represents 7-inches of accumulated rain.

Table 3-1
Date 7-inch Year-To-Date Rainfall Criterion Met in Water Year 2019

Rainfall gage (Alert ID)	Date
Mt. Umunhum (2081)	29 November 2018
Guadalupe (1526)	5 January 2019
Almaden (2080)	5 January 2019
Vasona Pump (1527)	15 January 2019
Alamos (2065)	16 January 2019

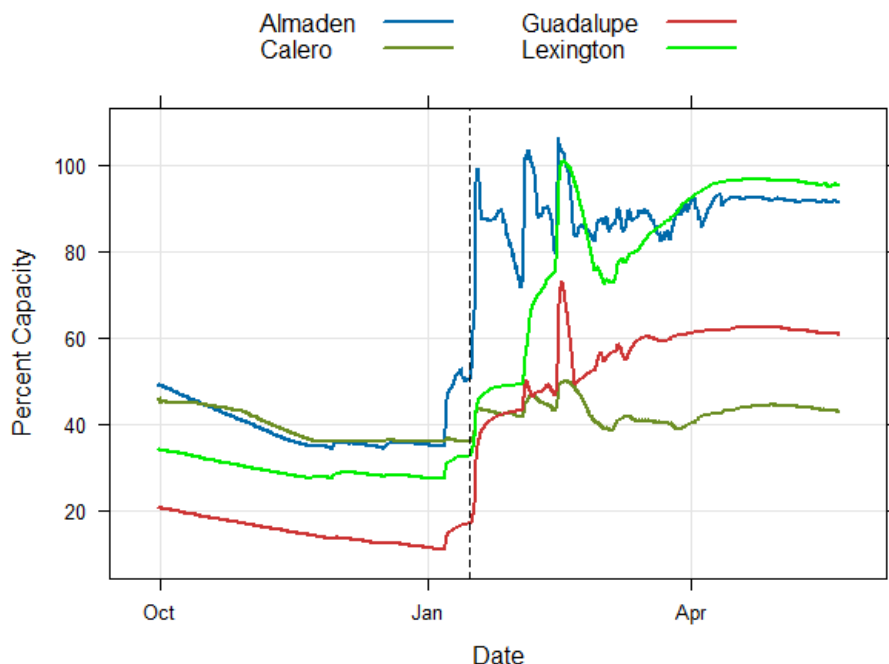


Figure 3-3 Reservoir percent capacity during water year 2019. The dashed line indicates the first substantial storm on 15 January 2019.

Table 3-2
Percent Reservoir Capacity Prior to Storm Flow Sampling in 2019

Reservoir	% Capacity on 3 February	% Capacity on 13 February
Almaden	97.5	81.3
Calero	44.3	43.1
Guadalupe	48.7	47.0
Lexington	54.4	75.4

Rainfall during drought conditions in water years 2020 to 2022 was insufficient to trigger monitoring efforts.

During water year 2023, small rainstorms occurred starting in early November (Figure 3-4 with cumulative rainfall exceeding seven inches in early to mid- December (Table 3-3). Rainfall 2.4 to 2.9 inches per 6 hours occurred on December 10 and December 31 at the Almaden (2080), Guadalupe (1526), and Mt Umunhum (2081) gages. These storm intensities are considered capable of initiating mercury mobilization in the watershed. Reservoirs were filling by early January (Table 3-4, Figure 3-5). Almaden Reservoir reached full capacity on December 31.

The next major storm that was projected to exceed 1,900 cfs (Storm C) occurred on January 4. Flows in the Guadalupe River decreased to pre-storm levels by January 6. A subsequent large storm (Storm D) was predicted to occur on January 9.

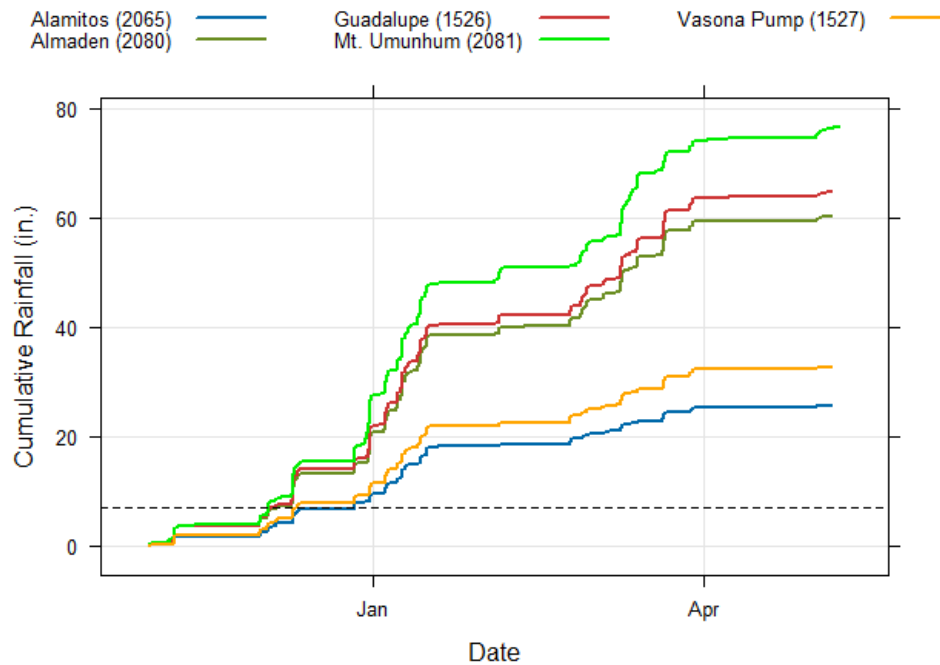


Figure 3-4 Cumulative rainfall at Valley Water ALERT rain gages during water year 2023. Dashed line represents 7-inches of accumulated rain.

Table 3-3
Date 7-inch Year-To-Date Rainfall Criterion Met in Water Year 2023

Rainfall gage (AlertID)	Date
Mt. Umunhum (2081)	3 December 2022
Guadalupe (1526)	4 December 2022
Almaden (2080)	5 December 2022
Vasona Pump (1527)	11 December 2022
Alamos (2065)	26 December 2022

Table 3-4
Percent Reservoir Capacity Prior to Storm Flow Sampling in 2023

Reservoir	% Capacity on 4 January	% Capacity on 9 January
Almaden	70.3	99.5
Calero	37.6	43.3
Guadalupe	32.2	35.2
Lexington	57.4	69.8

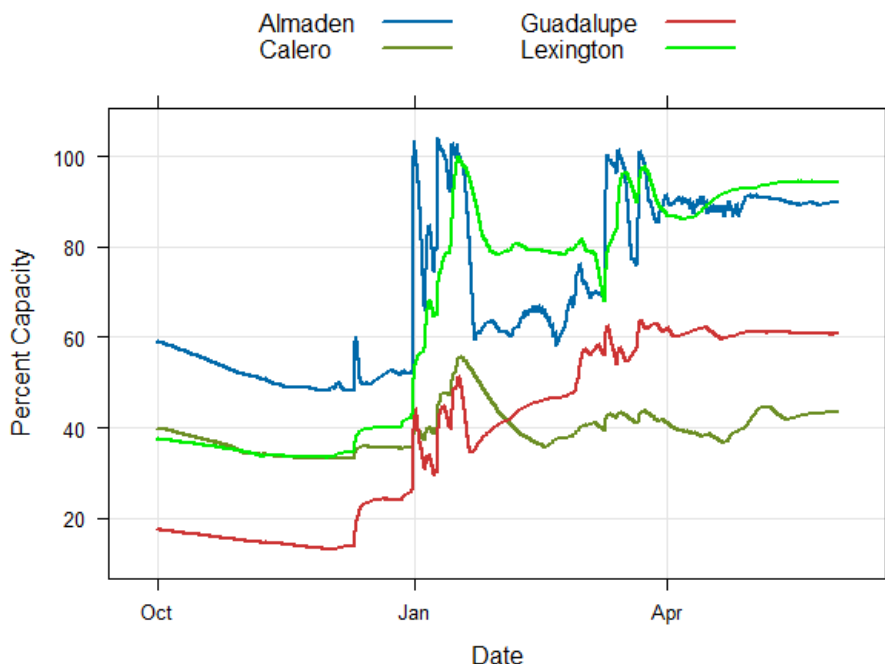


Figure 3-5 Reservoir percent capacity during water year 2023.

Once the two initial trigger criteria were met, the predicted rainfall and predicted flows at the Highway 101 gage on the Guadalupe River were monitored using forecasts on the CNRFC website. Forecast flows and rainfall were compared to previously defined threshold criteria (Table 3-5). Criteria became progressively more stringent over subsequent storms. All storms met mobilization criteria based on CNRFC predictions. However, actual field conditions did not always meet the target criteria. Storms A and B in 2019 met all required criteria for Tier 1 and 2 storms. Storm C in 2023 met the predicted streamflow and reservoir capacity criteria, but actual conditions did not meet the total rainfall or peak 6-hour rainfall criteria for a Tier 2 storm. Storm D met three of the four criteria for a Tier 3 storm but failed to meet the total rainfall criterion.

**Table 3-5
Mobilization Criteria Met for Storm Sampling**

Storm	Criterion	Tier	Threshold	CNRFC pred ¹	Actual Met?
A	1. Predicted Streamflow at USGS Highway 101 gage	1	>1,800 cfs	2,210	Y
A	3. 6-hour rainfall forecast at Quicksilver Park ²	1	>0.5 inches	-	Y
B	1. Predicted Streamflow at USGS Highway 101 gage	2	>1,920 cfs	4,434	Y
B	2. Storm forecast for upper watershed	2	>6 inches	10.9"	Y
B	3. 6-hour rainfall forecast at Quicksilver Park	2	>2 inches	2.8"	Y
B	4. Almaden Reservoir near capacity	2	>10% full	-	Y
C	1. Predicted Streamflow at USGS Highway 101 gage	2	>1,920 cfs	2,440	Y
C	2. Storm forecast for upper watershed	2	>6 inches	8.3"	N
C	3. 6-hour rainfall forecast at Quicksilver Park	2	>2 inches	2.4"	N
C	4. Almaden Reservoir near capacity	2	>10% full	-	Y
D	1. Predicted Streamflow at USGS Highway 101 gage	3	>3,610 cfs	7,260	Y
D	2. Storm forecast for upper watershed	3	>12 inches	13.5"	N
D	3. 6-hour rainfall forecast at Quicksilver Park	3	>2 inches	4.5"	Y
D	4. Almaden Reservoir near capacity	3	>10% full	-	Y
¹ Refer to Table 2-1 and Figure 2-1					
² Estimated from CNRFC graphic output for forecast prior to mobilization					

3.1.2 STORM HYDROGRAPHS

Two storms met the mobilization criteria of 1,800 cfs after 15 January 2019. The hydrograph for water year 2019 storms at the Above Highway 101 and Almaden Expressway gages on the Guadalupe River is provided in Figure 3-6. Flows at the Almaden Expressway peaked, on average, 10 hours prior to peak flows at the Above Highway 101 gage. Total discharge at the Above Highway 101 gage during storms A and B (February 3 to 23) was 34,727.2 acre-feet as compared to discharge at the Almaden Expressway gage of 17,334.0 acre-feet: discharge at the two gages differed by a factor of 2.

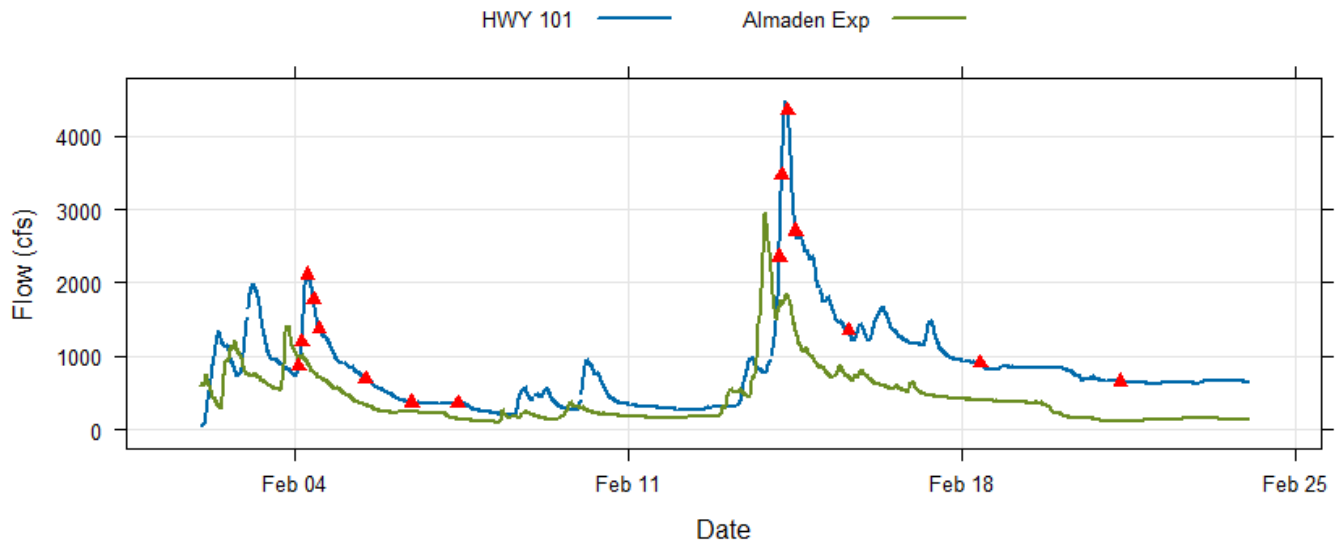


Figure 3-6 Hydrographs for Storms A and B at the Above Highway 101 and Almaden Expressway flow gages in February 2019. Red triangles indicate sample collection times.

3.1.2.1 Storm A

Storm flows from Storm A occurred between February 3 and 7 (Table 3-6). Eight samples, plus one duplicate, were collected over the duration of Storm A. Three samples were collected during the rising leg of the storm and five samples during the falling leg.

Table 3-6
Summary of Flow and Rainfall During Storm A

Period Start	2/3/2019 00:00	
Period End	2/7/2019 23:45	
Maximum Discharge	2/4/2019 06:30 - 2,140 cfs	
Rainfall Summary		
Gage	Total Rainfall (inches)	Peak 6-hour Rainfall (inches)
Mt. Umunhum (2081)	8.20	1.72
Guadalupe (1526)	6.75	1.51
Almaden (2080)	7.09	1.65
Vasona Pump (1527)	3.35	1.04
Alamitos (2065)	2.56	0.68

Rainfall in the upper watershed occurred in two pulses on February 2 and 3, with a third pulse shortly after the start of sampling (Figure 3-7). The majority of the rainfall was measured at the Mt. Umunhum, Guadalupe, and Almaden rain gages in the upper watershed. Rainfall in the upper watershed decreased by mid-day on February 4, although flood flows at the Above Highway 101 gage continued through February 7.

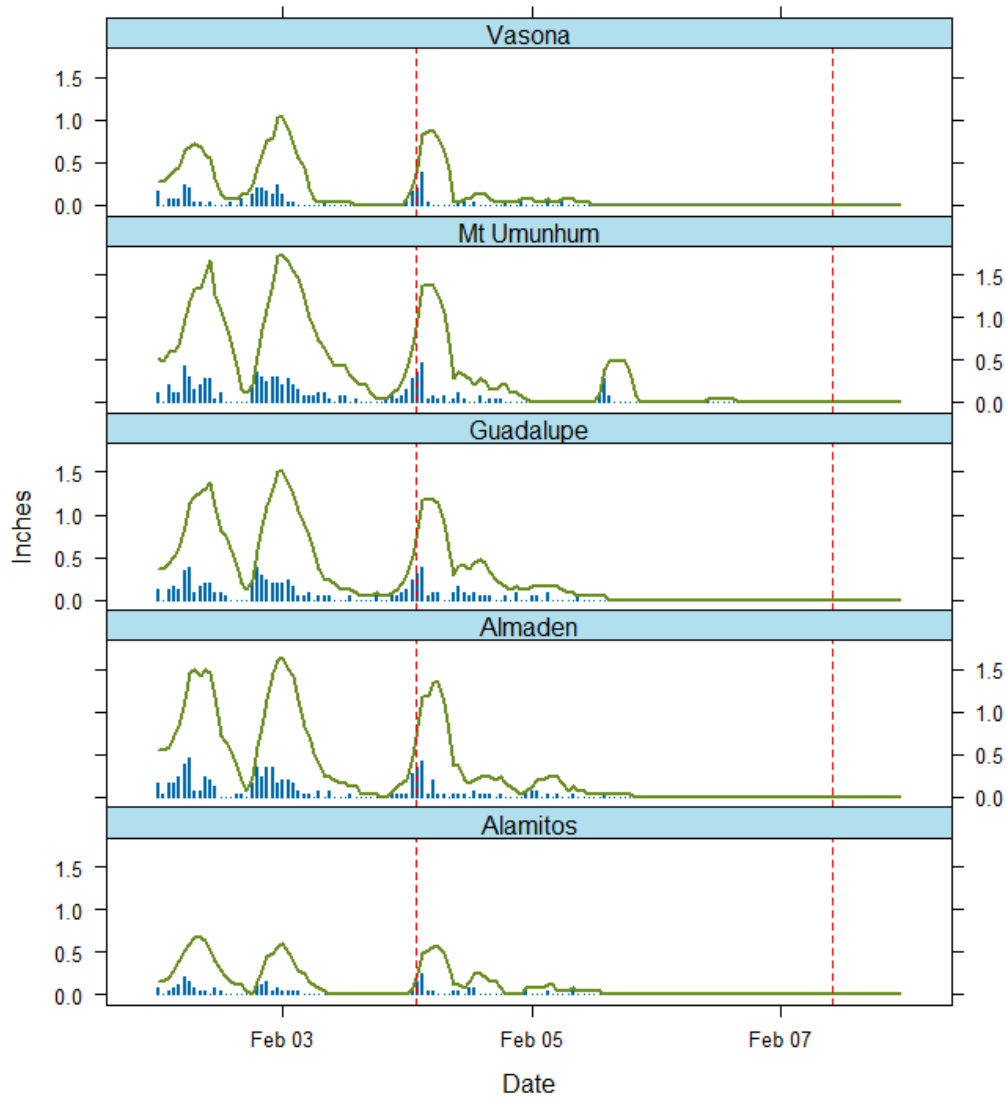


Figure 3-7 Hourly and cumulative 6-hour rainfall at Valley Water ALERT rain gages prior to and during Storm A. Red dashed lines indicate period of storm sampling at the USGS gage.

3.1.2.2 Storm B

Storm flows from Storm B occurred between February 13 and 21 (Table 3-7). Eight samples, plus one duplicate, were collected over the duration of Storm B. Three samples were collected during the rising leg of the storm and five samples during the falling leg.

Table 3-7
Summary of Flow and Rainfall During Storm B

Period Start	2/13/2019 00:00	
Period End	2/21/2019 23:45	
Maximum Discharge	2/14/2019 08:00 - 4,450 cfs	
Rainfall Summary		
Gage	Total Rainfall (inches)	Peak 6-hour Rainfall
Mt. Umunhum (2081)	9.67	2.48
Guadalupe (1526)	8.90	2.75
Almaden (2080)	7.16	1.65
Vasona Pump (1527)	4.23	1.35
Alamitos (2065)	3.50	1.34

Rainfall in the upper watershed started approximately 12-18 hours before sampling started at the above Highway 101 gage (Figure 3-8). The highest rainfall was measured at the Mt. Umunhum and Guadalupe rain gages with both exceeding a peak rainfall of 2-inches per 6 hours (Table 3-7). Rainfall in the upper watershed decreased by February 15, although flood flows at the Highway 101 gage continued through February 21. No other large storms occurred in water year 2019.

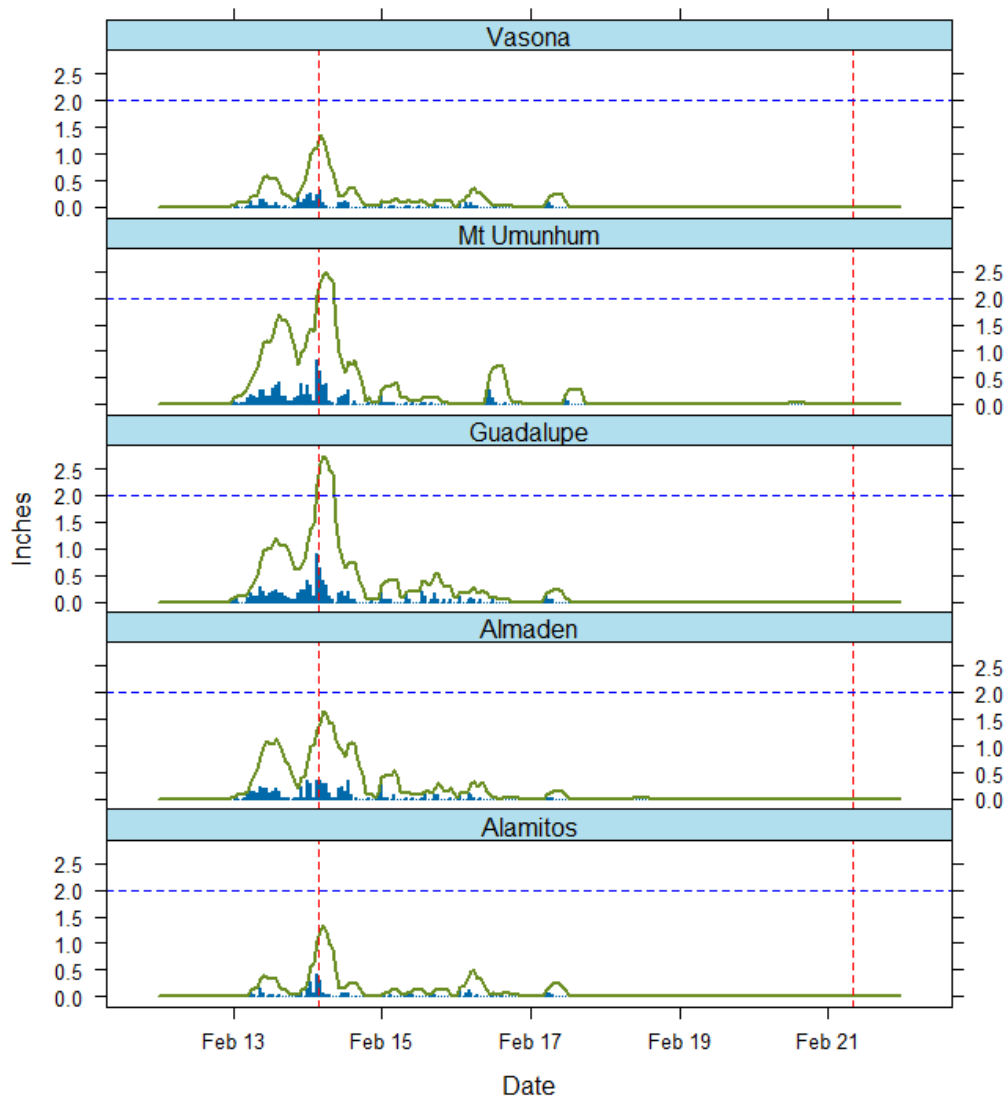


Figure 3-8 Hourly and cumulative 6-hour rainfall at Valley Water ALERT rain gages prior to and during Storm B. Red dashed lines indicate period of storm sampling at the USGS gage. Blue dashed line indicates 6-hourly cumulative rainfall criterion of 2-inches or above.

3.1.2.3 Storm C

The hydrographs for water year 2023 storms at the above Highway 101 and Almaden Expressway gages on the Guadalupe River are provided in Figure 3-9. Storms C and D exceeded the mobilization criteria of 1,900 cfs between January 4 and January 10, 2023. Two subsequent storms likewise exceeded the flow mobilization criterion at 3,850 cfs on January 14 and 4,770 cfs on January 16.

Flows at the Almaden Expressway gage peaked, on average, 11 hours prior to peak flows at the above Highway 101 gage during storms C and D.

Total discharge at the Highway 101 gage during the January 2023 storms (January 4 to 23) was 56,604.5 acre-feet as compared to discharge at the Almaden Expressway gage of 30,052.2 acre-feet; discharge differed by a factor of 1.9.

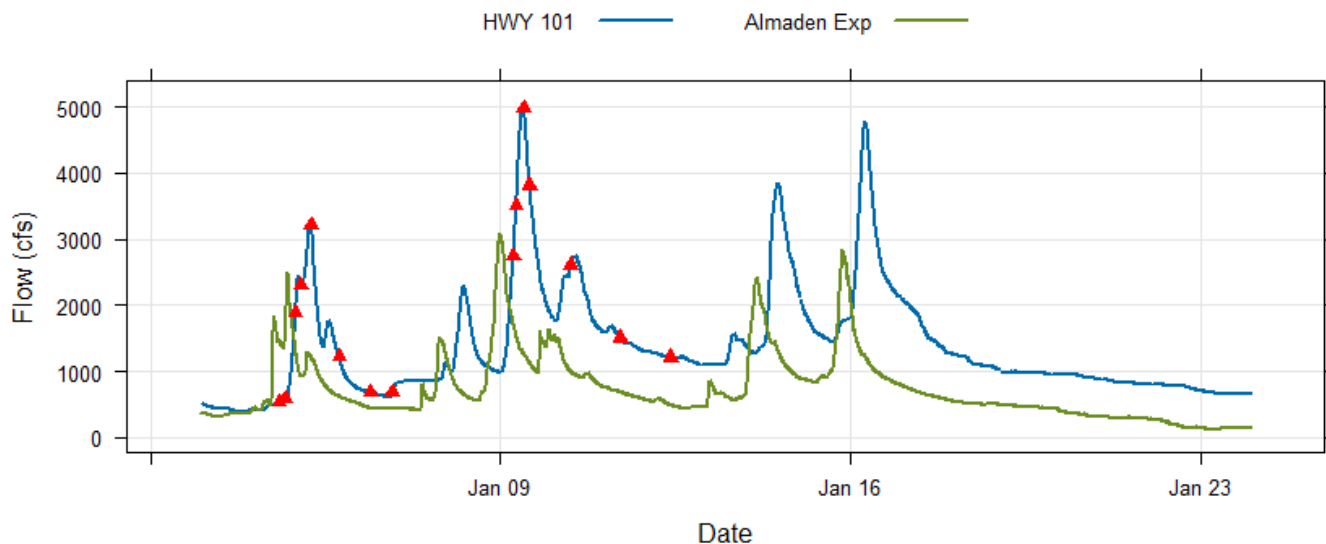


Figure 3-9 Hydrographs for Storms C and D at the above Highway 101 and Almaden Expressway flow gages in January 2023. Red triangles indicate sample collection times.

Flows from Storm C occurred between January 4 and 6 (Table 3-8). Eight samples were collected over the duration of Storm C. Five samples were collected during the rising leg of the storm and three samples during the falling leg.

Table 3-8
Summary of Flow and Rainfall During Storm C

Period Start	1/4/2023 13:45	
Period End	1/6/2023 20:00	
Maximum Discharge	1/5/2023 04:45 - 3,260 cfs	
Rainfall Summary		
Gage	Total Rainfall (inches)	Peak 6-hour Rainfall
Mt. Umunhum (2081)	4.16	1.56
Guadalupe (1526)	4.00	1.44
Almaden (2080)	3.80	1.64
Vasona Pump (1527)	2.60	1.04
Alamitos (2065)	2.00	0.92

Rainfall in the upper watershed started approximately 12-18 hours before sampling started at the Highway 101 gage (Figure 3-10). Peak rainfall in the upper watershed coincided with the start of sampling at the Highway 101 gage. The majority of the rainfall was measured at the Mt. Umunhum, Guadalupe, and Almaden rain gages. Maximum

rainfall within 6 hours was measured at Mt. Umunhum (Table 3-8). A second peak of rainfall occurred in the early morning of January 5. Storm flows at the Highway 101 gage continued through January 6.

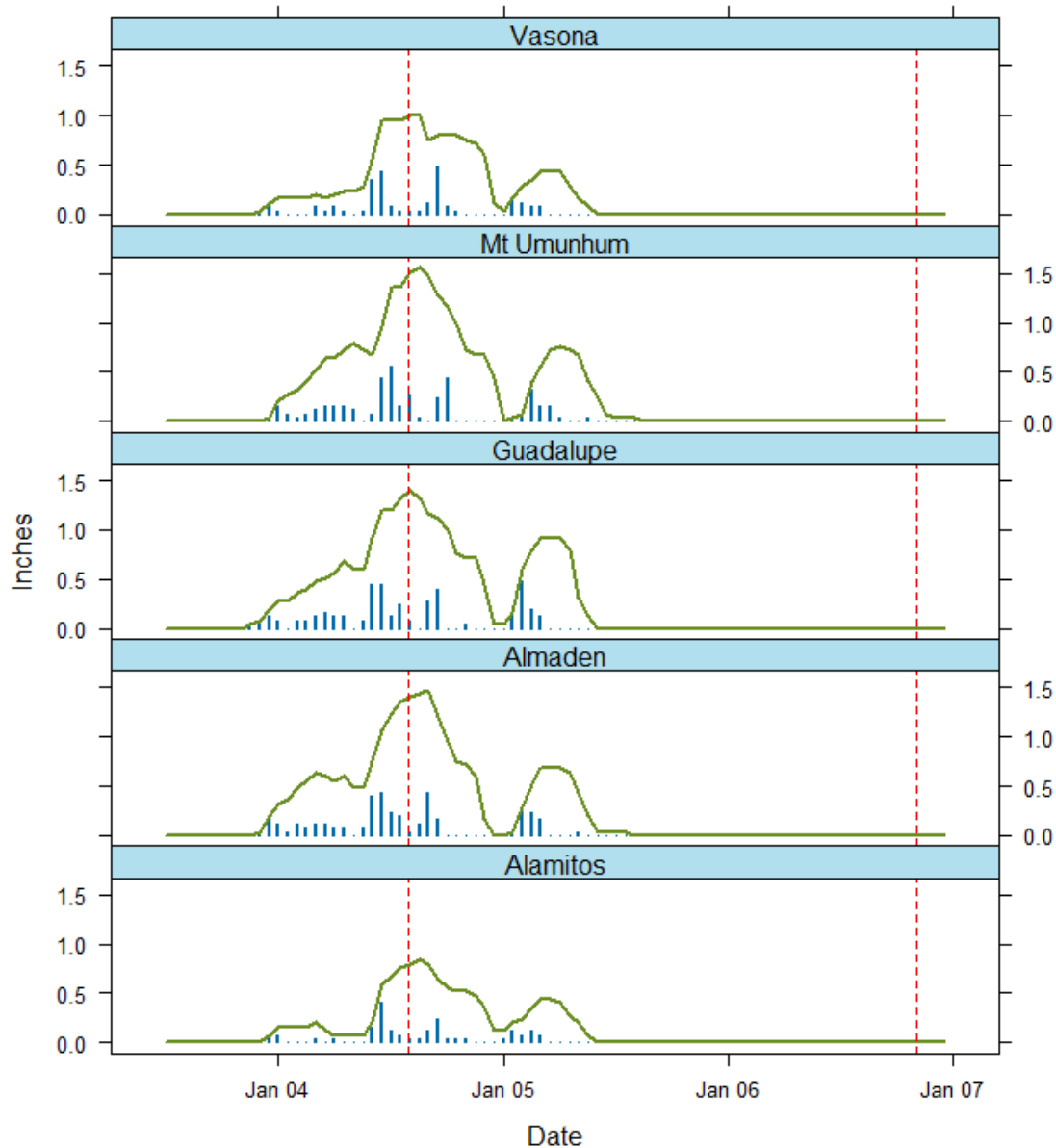


Figure 3-10 Hourly and cumulative 6-hour rainfall at Valley Water ALERT rain gages prior to and during Storm C. Red dashed lines indicate period of storm sampling at the USGS gage.

3.1.2.4 Storm D

Storm D was predicted to be the largest storm of the monitoring period. On the morning of January 8, the CNRFC predicted storm flows at the USGS gage to exceed 7,200 cfs on the afternoon of January 9.

Storm flows from Storm D occurred between January 9 and 13 (Table 3-9). Eight samples, including one duplicate, were collected over the duration of Storm D. Four samples were collected during the rising leg of the storm and four samples during the falling leg.

Table 3-9
Summary of Flow and Rainfall During Storm D

Period Start	1/9/2023 06:00	
Period End	1/13/2023 23:45	
Maximum Discharge	01/9/2023 10:30 - 5,040 cfs	
Rainfall Summary		
Gage	Total Rainfall (inches)	Peak 6-hour Rainfall
Mt. Umunhum (2081)	9.16	2.96
Guadalupe (1526)	8.32	2.64
Almaden (2080)	7.68	2.44
Vasona Pump (1527)	4.44	0.96
Alamitos (2065)	3.60	1.24

Rainfall in the upper watershed started approximately 12-18 hours before sampling started at the Highway 101 gage (Figure 3-11). Peak rainfall in the upper watershed coincided with the start of sampling at the Highway 101 gage. The maximum rainfall was measured at the Mt. Umunhum, Guadalupe, and Almaden rain gages. The 6-hour cumulative rainfall exceeded the target of 2.0 inches at these three gages (Table 3-9). A second pulse of rainfall occurred on January 10. Flood flows at the Highway 101 gage continued through January 13.

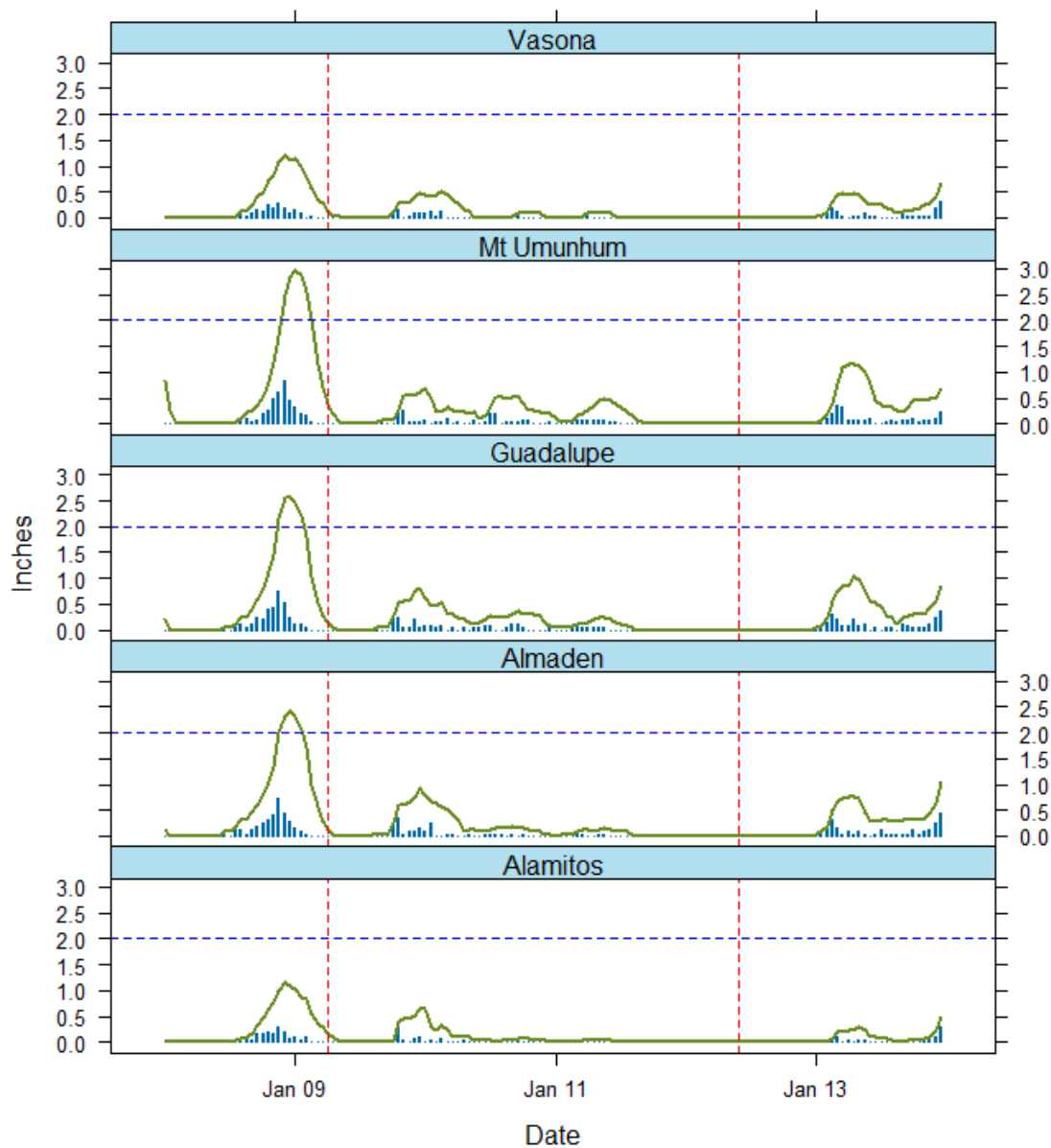


Figure 3-11 Hourly and cumulative 6-hour rainfall at Valley Water ALERT rain gages prior to and during Storm D. Red dashed lines indicate period of storm sampling at the USGS gage. Blue dashed line indicates 6-hourly cumulative rainfall of 2-inches.

3.1.2.5 Storm Progression

Flows in the Guadalupe River relative to timing of rainfall were examined. Rainfall in the upper watershed (Figure 3-7, Figure 3-8, Figure 3-10, and Figure 3-11) generally occurred approximately 12 to 36 hours prior to flow increases at the USGS Highway 101 gage (Figure 3-6 and Figure 3-9). Rainfall in the upper watershed generally ceased one day prior to decreased flows at the USGS gage.

Peak flows at the Almaden Expressway gage typically occurred approximately 11 hours prior to peaks at the USGS gage.

3.1.3 MERCURY CHEMISTRY DURING STORMS

Analytical results from the sampled storms are provided in Table 3-10 and Table 3-11. Total mercury concentrations ranged from 71.2 ng/L to 2,200 ng/L, averaging 835.4 ng/L over the four storms. The percent dissolved mercury was low, ranging from 0.51 percent to 9.05 percent of total mercury. TSS concentrations ranged from 24 to 480 mg/L with an average of 173 mg/L. Particulate mercury concentrations ranged from 1.62 to 10.7 mg .Hg/kg.TSS, averaging 5.77 mg.Hg/kg.TSS, similar to concentrations reported in McKee et al (2018) (6.3 mg.Hg/kg.TSS). Complete laboratory reports are provided in Appendix A.

The relationships between all pairs of parameters measured during all four storms are provided in Figure 3-12. Strong correlations ($r > 0.85$) exist between total mercury, total suspended solids, and instantaneous flow. Both total mercury and TSS exhibit a linear relationship to flow. Particulate mercury concentrations show a weak negative correlation to flow ($r = -0.54$).

Dissolved mercury and particulate mercury concentrations show a decrease at low flows, but are relatively flat at higher flows, suggesting that the measured concentrations are independent of flow. Dissolved mercury concentrations averaged 3.16 percent of total mercury over all four storms.

Methylmercury concentrations average 1.05 ng/L, and are weakly correlated with flow, TSS, and total mercury. Methylmercury exhibits an increasing relationship with flow but is more variable than total mercury and TSS.

McKee et al. (2018) and AECOM (2017) describe the relationship between total mercury and flow, and TSS and flow, as power curves based on theoretical considerations. Log-transforming each variable allows calculation of the power-curve relationship for these parameters.

Table 3-10
Analytical Results from Water Year 2018-2019 Storms

Storm	Sample ID	Date/Time	Flow (cfs)	Total mercury (ng/L)	Dissolved mercury (ng/L)	Percent dissolved mercury	Methyl-mercury (ng/L)	TSS (mg/L)	Hg (mg)/ TSS (kg)
A	GR-19-SA-T1	2/4/2019 1:45	845	559	23	4.11	0.899 J-	65	8.6
A	GR-19-SA-T2	2/4/2019 3:15	1220	582	15.9	2.73	1.13 J-	114	5.11
A	GR-19-SA-T3	2/4/2019 6:15	2220	685	11.9	1.74	0.713 J-	182	3.76
A	GR-19-SA-T4	2/4/2019 9:15	1870	989	16.7	1.69	0.865 J-	143	6.92
A	GR-19-SA-T5	2/4/2019 12:00	1430	891	22.4	2.51	0.775 J-	101	8.82
A	GR-19-SA-T6	2/5/2019 11:30	631	491	23.3	4.75	0.732 J-	53	9.26
A	GR-19-SA-T7	2/5/2019 11:30	631	555	22.7	4.09	0.771 J-	52	10.67
A	GR-19-SA-T8	2/6/2019 10:45	303	323	20.5	6.35	0.587 J-	33 J	9.79
A	GR-19-SA-T9	2/7/2019 10:00	293	253	22.9	9.05	0.404 J-	24 J	10.54
B	GR-19-SB-T2	2/14/2019 3:45	2360	1150	8.28	0.72	1.28 J-	215	5.35
B	GR-19-SB-T3	2/14/2019 5:00	3470	1260	8.27	0.66	1.11 J-	339	3.72
B	GR-19-SB-T4	2/14/2019 8:00	4330	1830	12	0.66	1.06 J-	450	4.07
B	GR-19-SB-T5	2/14/2019 12:00	2700	1740	18.9	1.09	0.885 J-	406	4.29
B	GR-19-SB-T6	2/14/2019 12:00	2700	1870	19.1	1.02	0.31 J-	392	4.77
B	GR-19-SB-T7	2/15/2019 14:45	1370	731	18.9	2.59	0.735 J-	175 J	4.18
B	GR-19-SB-T8	2/18/2019 9:00	893	208	7.97	3.83	0.31 J-	58	3.59
B	GR-19-SB-T9	2/21/2019 7:45	590	71.2	3.96	5.56	0.178 J-	44	1.62

J and J- qualifiers indicate increased uncertainty in the reported result.

Table 3-11
Analytical Results from Water Year 2022-2023 Storms

Storm	Sample ID	DateTime	Flow (cfs)	Total mercury (ng/L)	Dissolved mercury (ng/L)	Percent dissolved mercury	Methyl-mercury (ng/L)	TSS (mg/L)	Hg (mg)/ TSS (kg)
C	GR-23-C-T1	1/4/2023 13:45	539	210	14	6.67	0.83	28	7.5
C	GR-23-C-T2	1/4/2023 16:40	582	220	14	6.36	0.76	34	6.47
C	GR-23-C-T3	1/4/2023 21:30	1880	1600	8.2	0.51	1.9	260	6.15
C	GR-23-C-T4	1/5/2023 0:10	2300	580	9.3	1.6	1.2	160	3.63
C	GR-23-C-T5	1/5/2023 5:00	3210	840	11	1.31	2.3	270	3.11
C	GR-23-C-T6	1/5/2023 18:30	1220	440	20	4.55	1.6	100	4.4
C	GR-23-C-T7	1/6/2023 9:45	673	240	20	8.33	1	28	8.57
C	GR-23-C-T8	1/6/2023 20:00	682	220	16	7.27	0.99	27	8.15
D	GR-23-D-T1	1/9/2023 6:00	2740	550	8.2	1.49	1.1	150	3.67
D	GR-23-D-T2	1/9/2023 7:30	3500	910	8	0.88	1.6	270	3.37
D	GR-23-D-T3	1/9/2023 11:00	4980	2200	14	0.64	2.1	480	4.58
D	GR-23-D-T4	1/9/2023 11:00	4980	2000	15	0.75	2.4	430	4.65
D	GR-23-D-T5	1/9/2023 14:05	3810	1800	19	1.06	0.89	320	5.63
D	GR-23-D-T6	1/10/2023 9:45	2610	990	14	1.41	1.4	190	5.21
D	GR-23-D-T7	1/11/2023 9:30	1500	370	13	3.51	1.1	59	6.27
D	GR-23-D-T8	1/12/2023 9:40	1210	210	9.8	4.67	0.69	54	3.89

J and J- qualifiers indicate increased uncertainty in the reported result. – No qualifiers were applied to these data.

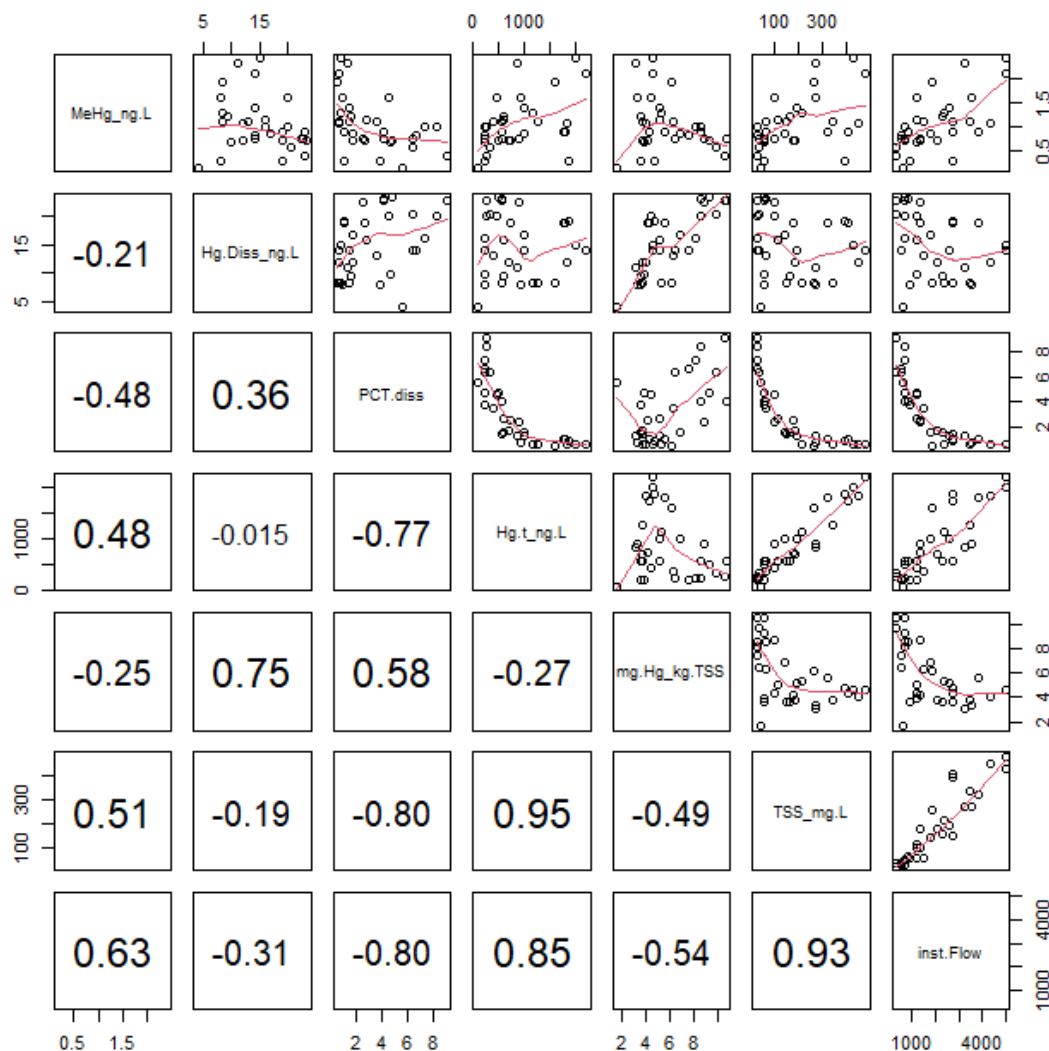


Figure 3-12 Pair plot showing relationships between measured parameters in all four 2019 and 2023 storms. Diagonal cells indicate parameters for plot axes. Above diagonal cells provide scatter plots for each pair of variables. Below diagonal cells provide the correlations between each pair of variables. Font size is proportional to the magnitude of the correlation. The minimum significant correlation coefficient is 0.349 at $\alpha = 0.05$ ($n=33$). MeHg = methylmercury; Hg.Diss = dissolved mercury; PCT.diss = percent dissolved mercury; Hg.t = total mercury; mg.Hg_kg.TSS = particulate mercury concentration; TSS = total suspended solids; inst.Flow = measured flow.

The relationships between total mercury and flow for all four storms are plotted on a log-log scale in Figure 3-13. Regression analysis indicates that there are significant differences between storms in both slope and intercept (Table 3-12). However, the overall regression is significant with a correlation coefficient of 0.82 (equation 1) indicating a good fit to the pooled data (Figure 3-14).

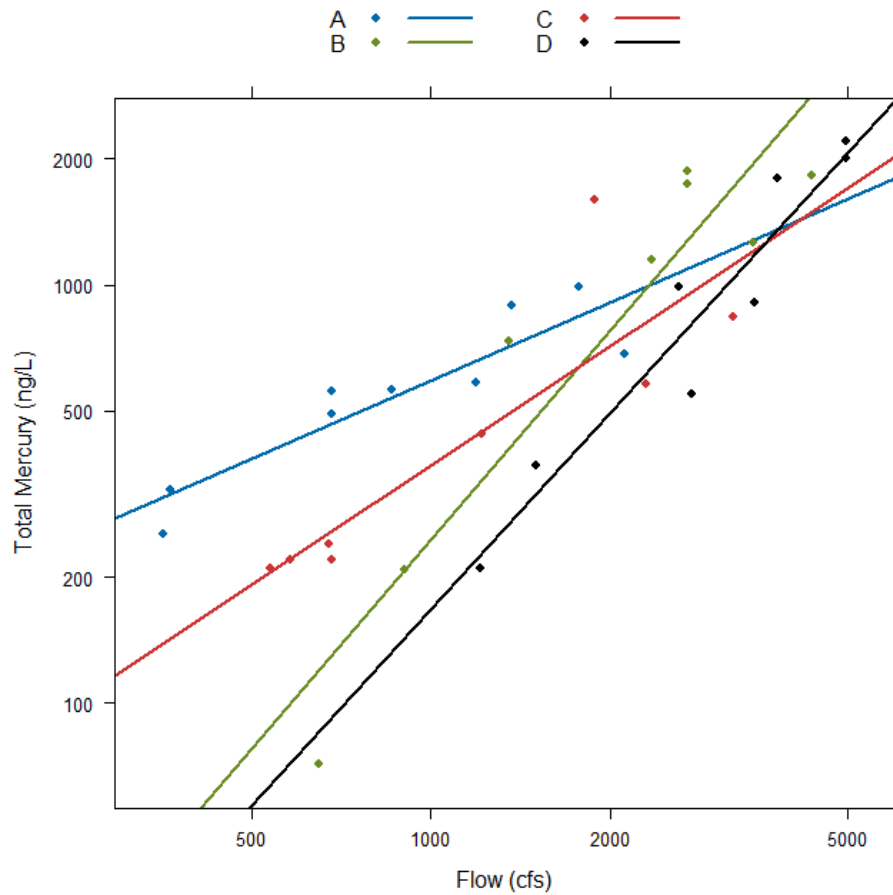


Figure 3-13 Plot of total mercury as function of flow during Storms A, B, C, and D at the USGS gage above Highway 101.

Table 3-12
Regression ANOVA of the Effect of Flow and Storm on Mercury Concentration

Source	df	Sum of Squares	Mean Square	F	Significance
Ln (Flow)	1	15.54	15.54	133.9	<<0.001
Storm	3	253	0.84	7.25	0.001
Interaction	3	2.20	0.73	6.32	0.002
Error	25	2.90	0.12		

The resulting overall equation for total mercury relative to flow is:

$$[Hg] = 0.7914Q^{0.910} \quad r = 0.82 \quad \text{eqn. 1}$$

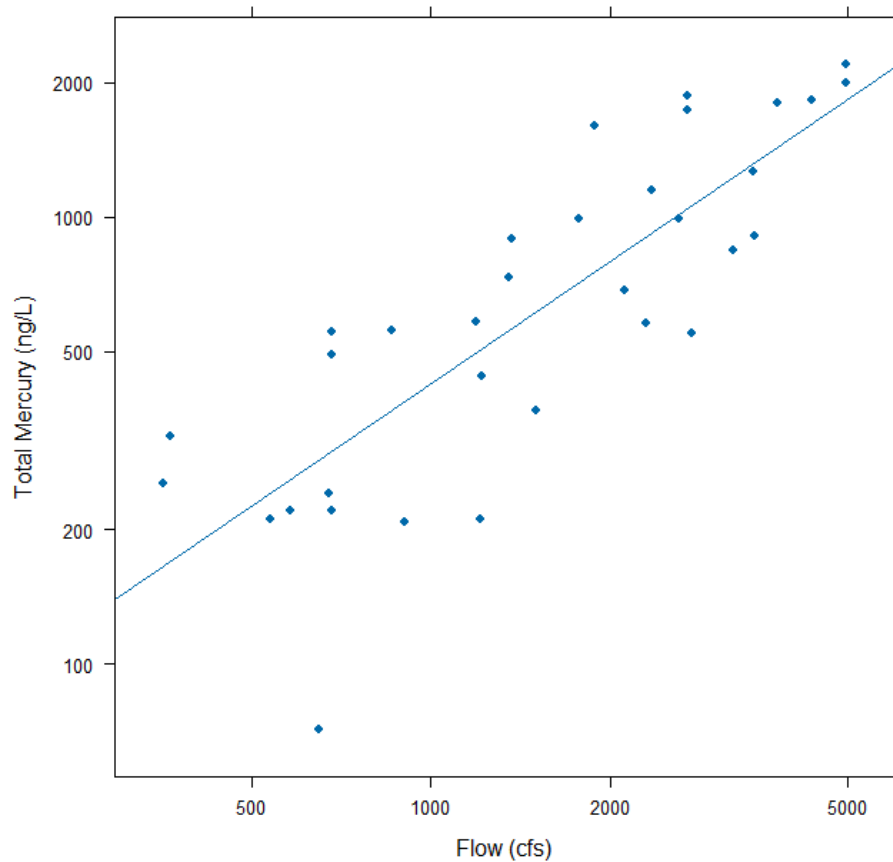


Figure 3-14 Regression of total mercury against flow for the combined storms at the USGS gage above Highway 101 (n=33, r=0.82).

The relationships between $\ln(\text{TSS})$ and $\ln(\text{flow})$ for all four storms are shown in Figure 3-15. Regression analysis indicates that there is no interaction effect (i.e., lines are parallel), but that there are significant differences in intercept between storms (Table 3-13). Storms C and D have lower TSS concentrations relative to flow than storms A and B. However, the overall pooled regression is significant with a correlation coefficient of 0.95 (equation 2) indicating a strong fit to the pooled data (Figure 3-16).

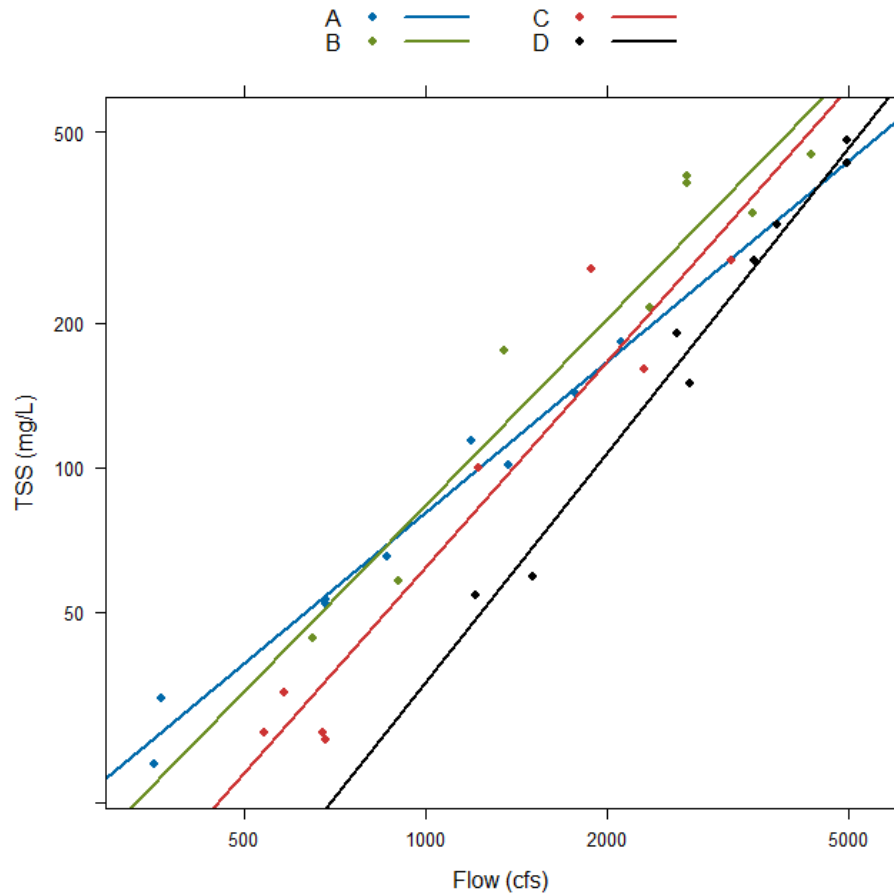


Figure 3-15 Plot of total suspended solids as function of flow during Storms A, B, C, and D at the USGS gage above Highway 101.

Table 3-13
Regression ANOVA of the Effect of Flow and Storm on TSS Concentration

Source	df	Sum of Squares	Mean Square	F	Significance
Ln (Flow)	1	26.83	26.83	547	<<0.001
Storm	3	1.44	0.48	9.82	<<0.001
Interaction	3	0.42	0.14	2.88	0.056
Error	25	1.23	0.05		

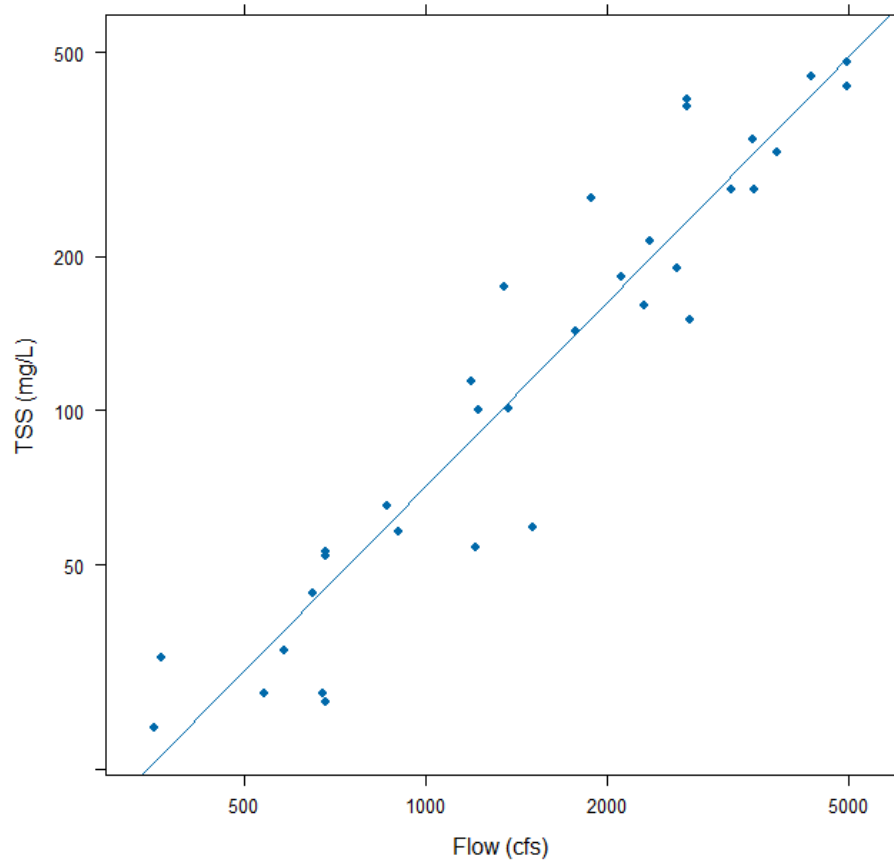


Figure 3-16 Plot of total suspended solids against flow at the USGS gage above Highway 101 ($n=33$, $r=0.95$).

The resulting overall equation between TSS and flow is:

$$[TSS] = 0.0185Q^{1.1954} \quad r=0.95 \quad \text{eqn. 2}$$

The relationship between total mercury and TSS for each of the four storms is shown in Figure 3-17. The individual storm relationships are similar to the relationship derived in the Tetra Tech (2005a) data collection report (dashed line). Regression analysis indicates that the relationship between total mercury and TSS did not differ among storms (Table 3-14).

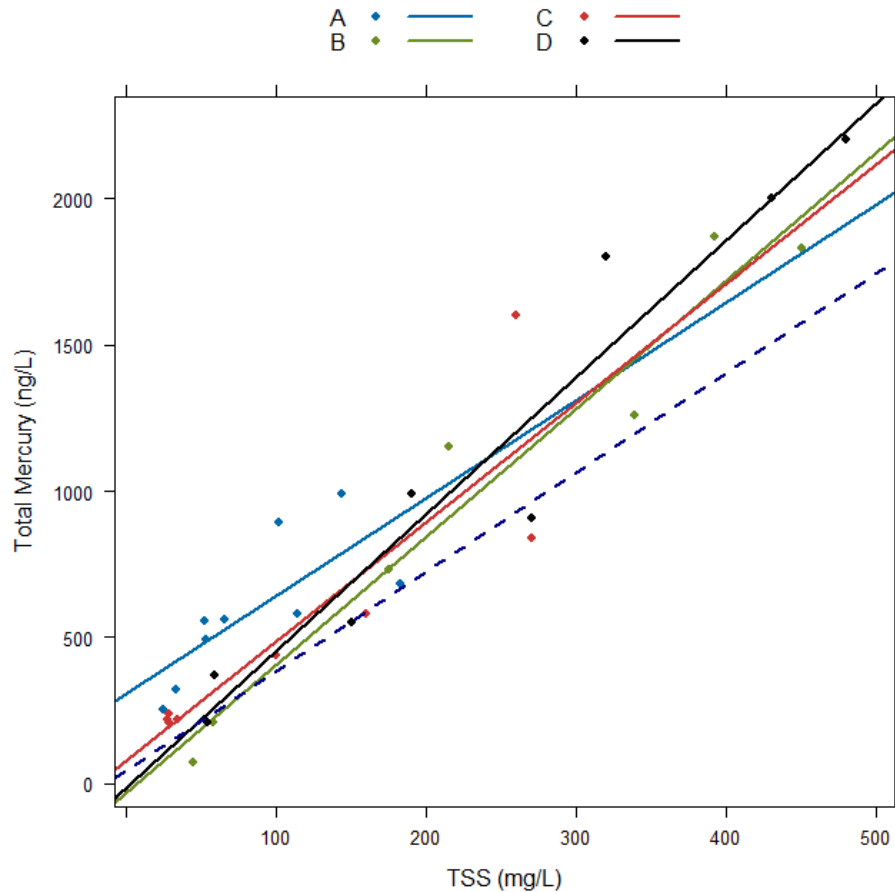


Figure 3-17 Plot of total mercury as function of total suspended solids concentrations during Storms A, B, C, and D at the above Highway 101 gage. The dashed blue line represents the equation derived during TMDL development (Tetra Tech 2005a)

Table 3-14
Analysis of Effect of Total Suspended Solids and Storm on Mercury Concentration

Source	df	Sum of Squares	Mean Square	F	Significance
TSS (mg/L)	1	11060933	11060933	285.90	<<0.001
Storm	3	235526	78509	2.03	0.14
Interaction	3	47738	15913	0.41	0.75
Error	25	967198	38688		

The resulting overall equation between total mercury and TSS (Figure 3-18) is:

$$[Hg] = 124.73 + 4.110 * [TSS] \quad r=0.95 \quad \text{eqn. 3}$$

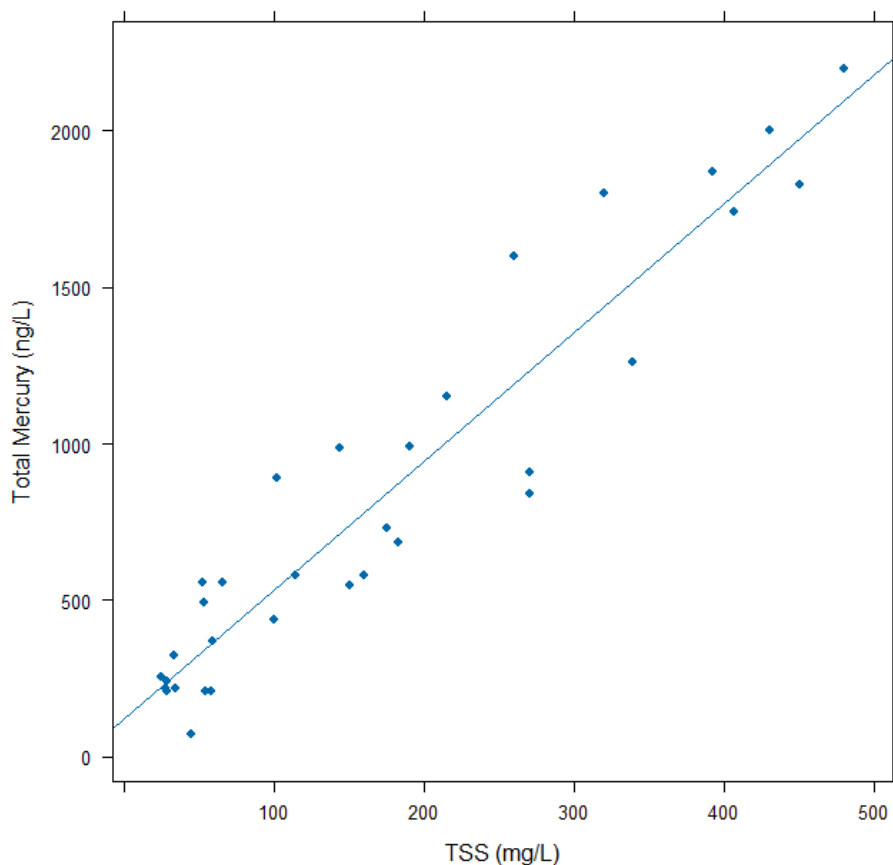


Figure 3-18 Plot of total mercury as function of total suspended solids concentrations at the Highway 101 flow gage.

It is assumed that mercury is transported through the system adsorbed to sediment particles and that the mercury concentration on the particles [mg(Hg)/kg(TSS)] is relatively constant (AECOM 2017, McKee et al. 2018, Tetra Tech 2005a).

The plot of particulate mercury concentration [mg(Hg)/kg(TSS)] for each storm suggests that the first storm of each year has higher particulate mercury concentration than the second storm (Figure 3-19). Initial review of the multiple regression between particulate mercury concentrations and flow indicates a weak negative correlation ($r=0.54$). Therefore, the data were compared using ANOVA to assess differences between storms. ANOVA results for the comparison of particulate mercury between storms indicates that there is a significant difference between storms (Table 3-15). The results of the subsequent Tukey Honest Significant Difference (HSD) test indicated that Storm A had higher particulate mercury concentrations than storms B and D, but not storm C, and that particulate mercury concentrations in storms B, C, and D are not significantly different statistically. Particulate mercury concentrations during the first storm in each year (storms A and C) appears more variable and higher than the subsequent storm (storms B and D).

The average particulate mercury concentration across all four storms is 5.77 mg(Hg)/kg(TSS). Data reported in Figure 3-13 of Tetra Tech (2005b) from the mining areas and along the mainstem of the Guadalupe River are similar to the concentrations measured in the present study. The average particulate mercury concentrations in mining-impacted streams is approximately 5.8 mg/kg.

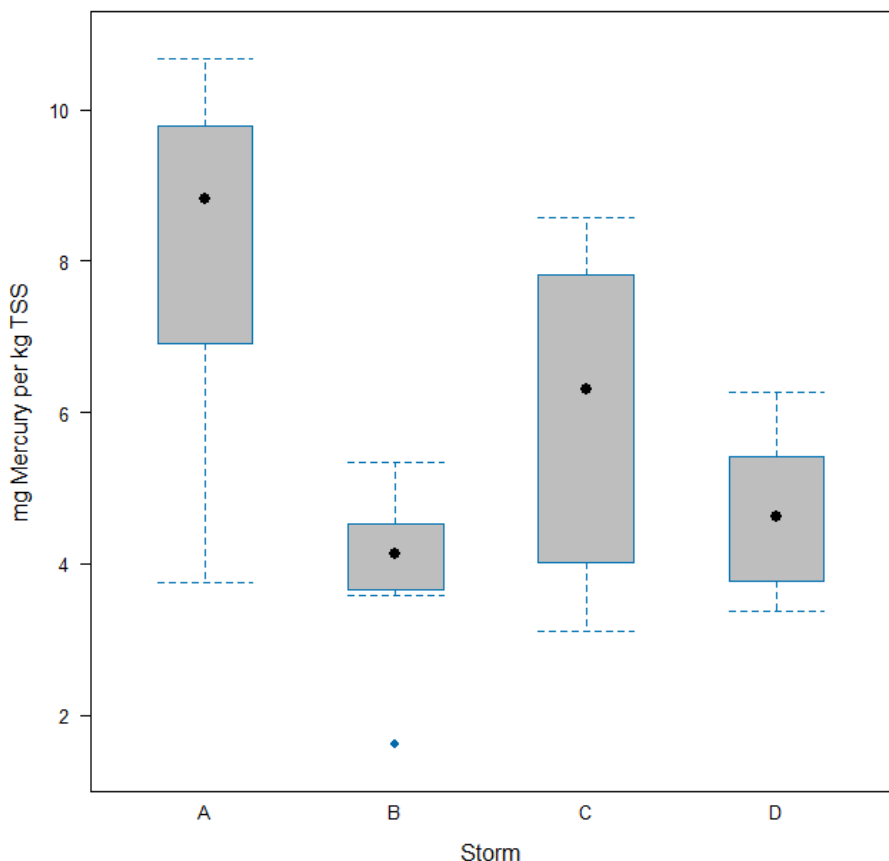


Figure 3-19 Box-and-whisker plot of particulate mercury concentrations [mg(Hg) per kg(TSS)] during each storm.

Table 3-15
ANOVA of Particulate Mercury Between Storms

Source	df	Sum of Squares	Mean Square	F	Significance
Storm	3	88.4	29.46	9.24	<<0.001
Error	29	92.4	3.19		

Peak water levels during storm B in 2019 significantly exceeded the height of the walking path under the airport access road bridge. As a result, sediments were deposited on the walking path as storm flows receded. The survey team decided to collect three haphazardly selected sediment samples from the path. The measured concentrations were 2.14 mg/kg, 2.01 mg/kg, and 0.81 mg/kg, averaging 1.65 mg/kg. These measured concentrations are lower than concentrations calculated from the measured water

concentrations. The sediment particles deposited on the footpath are likely to be larger (heavier) than the typical particle transported in the storm flows which may affect the measured concentration.

3.1.4 LOAD CALCULATIONS

Two approaches were used to calculate storm loadings: two-step approach and direct calculation based on equations derived in Section 3.1.3 from the field sampling data and measured flow the USGS gage above Highway 101. For the purpose of these calculations, the pooled regressions derived above were applied to simplify calculations.

The two-step approach involved estimation of TSS concentrations based on flow observed at 15-minute intervals at the USGS gage using equation 2. Next, the total mercury concentration was estimated from the TSS concentration using equation 3. The resulting mercury concentrations (ng/L) were then multiplied by the flow (cfs converted to liters per second) to yield ng/s for each 15-minute interval. The instantaneous masses were then converted to kg/15 minutes and summed over the duration of the storm to yield an estimated load.

In the direct calculation method, total mercury concentrations were calculated directly from measured flow at the USGS gage using equation 1 that relates total mercury concentration to flow. These concentrations (ng/L) are then multiplied by the flow (cfs converted to liters per second) to yield ng/s for each 15-minute interval. The instantaneous masses were then converted to kg/15 minutes and summed over the duration of the storm to yield an estimated load. This method is consistent with the method used by McKee et al. (2018).

The calculated mercury loads for each storm are provided in Table 3-16.

Table 3-16
Estimated Storm Loadings (kg)

Storm	Two-Step Calculation	Direct Calculation
A	4.46	4.54
B	16.59	16.66
C	5.17	5.22
D	19.72	19.55

Mercury loads for the complete wet season for each water year are provided in Table 3-17. During drought years (2020 to 2022) flows in the Guadalupe River were significantly lower than during 2019 and 2023 (Figure 3-1). As a result of the lower flows, the ability to suspend and transport particulates is substantially lower (see Figure 3-14 and Figure 3-16).

Table 3-17
Estimated Loadings by Water Year (kg)

Water Year	Two-Step Calculation	Direct Calculation
2019	44.91	42.29
2020	4.54	2.16
2021	4.18	2.70
2022	6.71	5.51
2023	100.48	98.89
Average	32.16	30.31

3.1.4.1 USGS Daily TSS loading: 2019-2022

USGS has reported daily average suspended sediment concentrations (SSC, equivalent to TSS) concentrations (mg/L), total daily SSC (TSS) loads (short tons/day), and average daily discharge (cfs) at the USGS gage above Highway 101 gage for wet seasons (October to April) from 1 November 2002 through 30 April 2022. These data were used to estimate mercury loads for storms A and B (2019) and water years 2019 through 2022. Due to discontinuation of the TSS data collection in 2022, loads for storms C and D in 2023 could not be estimated.

Two methods were used to calculate loadings based on average daily values:

Method 1

This approach was based on the daily average SSC (TSS) concentration as follows:

- 1) The daily average total mercury concentration (ng/L) was calculated from the daily average TSS concentration (mg/L) using equation 2, above, and converting to kg/L.
- 2) The total daily discharge (L/day) was calculated by multiplying the average discharge (cfs) by 60 seconds/minute times 60 minutes/hour times 24 hours/day and converting from cubic feet to liters.
- 3) The average mercury concentration (kg/L) was multiplied by the total daily discharge (L/day) to provide an estimate of the total mercury load in kg/day.
- 4) The daily mercury loads were then summed over the appropriate time period (storm or water year) to derive the total load (Table 3-18 and Table 3-19).

Method 2

The second method was based on the daily total SSC (TSS) load reported by USGS.

- 1) The total daily TSS load (short tons/day) reported by USGS was converted to kg(TSS)/day.
- 2) The daily total mercury load (kg/day) was calculated by multiplying the average particulate mercury concentration [5.77 (Hg(mg))/kg(TSS)] by the daily TSS load (kg/day), and converting the mg(Hg)/day to kg(Hg)/day.
- 3) The daily mercury loads were then summed over the appropriate time period (storm or water year) to derive the total load.

Table 3-18
Estimated Storm Loadings (kg) Based on Daily
Average TSS Concentration

Storm	Method 1	Method 2
A	4.90	5.57
B	21.18	26.80

Table 3-19
Estimated Loadings (kg) by Water Year Based on Total
Daily TSS Loads

Water Year	Method 1	Method 2
2019	58.36	69.26
2020	11.07	12.18
2021	6.91	7.36
2022	8.21	9.00

The estimated loadings calculated using the two methods are relatively consistent, with Method 2 tending to provide slightly higher load estimates. However, these approaches substantially overestimate the loads calculated using the instantaneous flow and sample data (Table 3-16 and Table 3-17).

3.1.5 COMPARISON TO PREVIOUS SURVEYS

Studies of mercury loading and distribution in the Guadalupe River and its watershed have been ongoing since at least 2002, a period of over 20 years. This section discusses the results from previous water years relative to the data collected between 2018 and 2023.

3.1.5.1 Total Mercury – Flow

The relationships between total mercury concentrations and flow from the present study in 2019 (Tt.19) and 2023 (Tt.23) and the San Francisco Estuary Institute (SFEI; McKee et al. 2018) and AECOM (2017) reports are shown in Figure 3-20.

Multiple regression analysis indicates a statistical difference among storms. The two Tetra Tech and the SFEI regressions are generally similar whereas the AECOM (2017) study has a significantly flatter slope. The lower average mercury concentration and flatter slope in the AECOM data would result in a lower estimate of loading. The 2015 water year sampled by AECOM had below average rainfall and followed a protracted period of drought; these climatic conditions may have resulted reduced mercury mobilization.

The SFEI data from the large 2017 storm (black dots) appear to form two parallel lines with different mercury concentrations for a given flow. McKee et al. (2018) attribute this pattern to different sources of mercury between the initial and later stages of the storm. They hypothesize that water in the initial rising stage of the hydrograph is derived from urban runoff with lower mercury concentrations whereas water in the latter portions of

the hydrograph is derived from runoff in the upper portions of the watershed which have higher mercury concentrations.

However, this pattern was not observed in any of the storms sampled by Tetra Tech in 2019 or 2023. The pattern observed in the present study is more likely due to remobilization of mercury-impacted sediments already present in streambeds throughout the watershed.

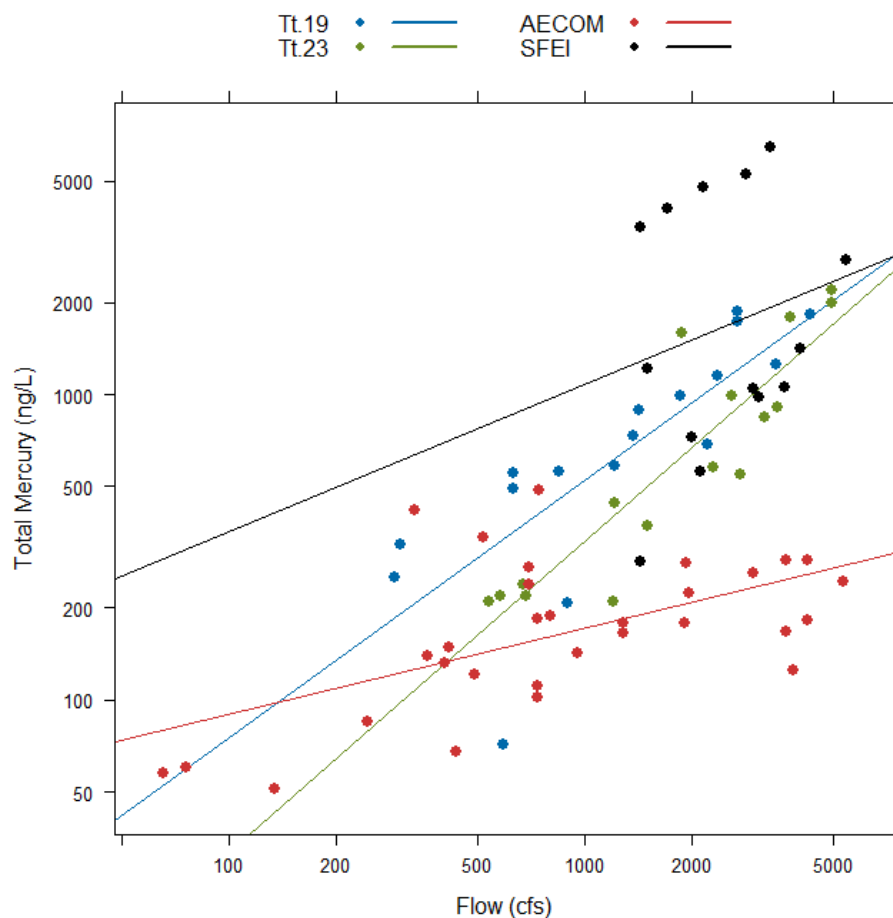


Figure 3-20 Relationships between mercury concentration and flow from the present study in 2019 (Tt.19) and 2023 (Tt.23), SFEI (McKee et al. 2018), and AECOM (2017).

3.1.5.2 TSS – Flow

The TSS versus flow regression analysis also exhibits differences among storms (Figure 3-21). As with total mercury, the Tetra Tech and SFEI regressions are generally similar, whereas the AECOM results have a flatter slope indicating a lower response of TSS to changes in flow. As noted above, the AECOM results may be due to climatic differences.

These results were compared to data presented in Figure 6-2 of the TMDL data collection report (Tetra Tech 2005a) (Figure 3-22). These historical data are consistent with the relationships shown in Figure 3-21.

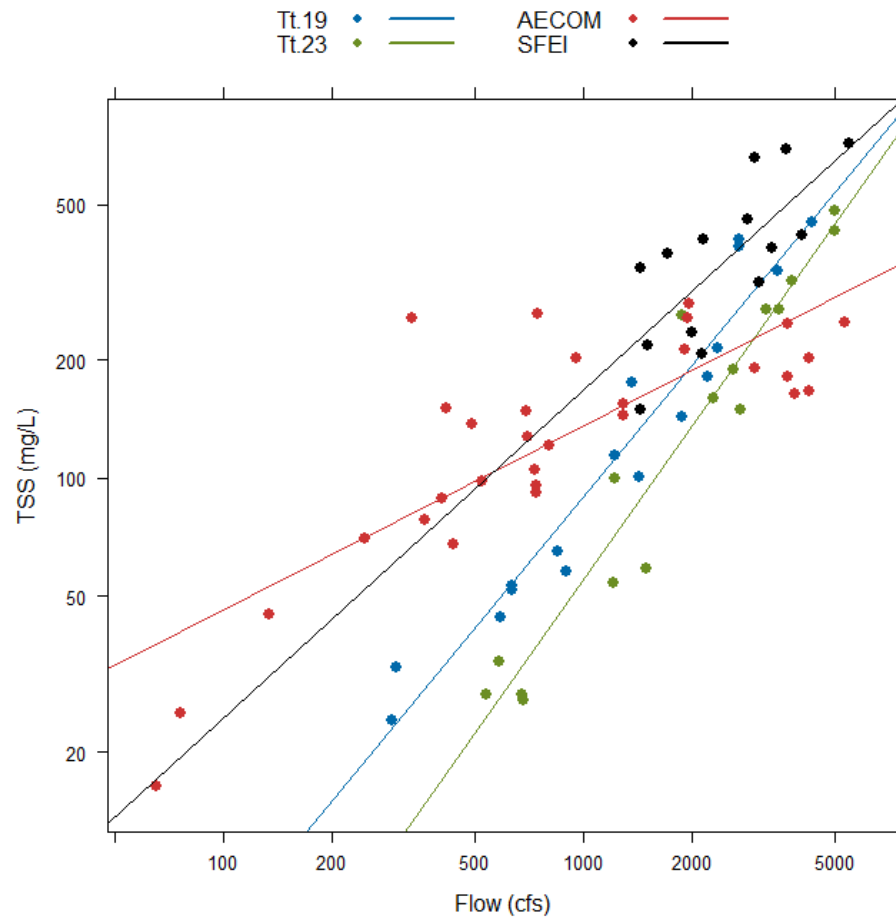


Figure 3-21 Relationships of TSS concentration to flow from the present study, SFEI (McKee et al. 2018), and AECOM (2017).

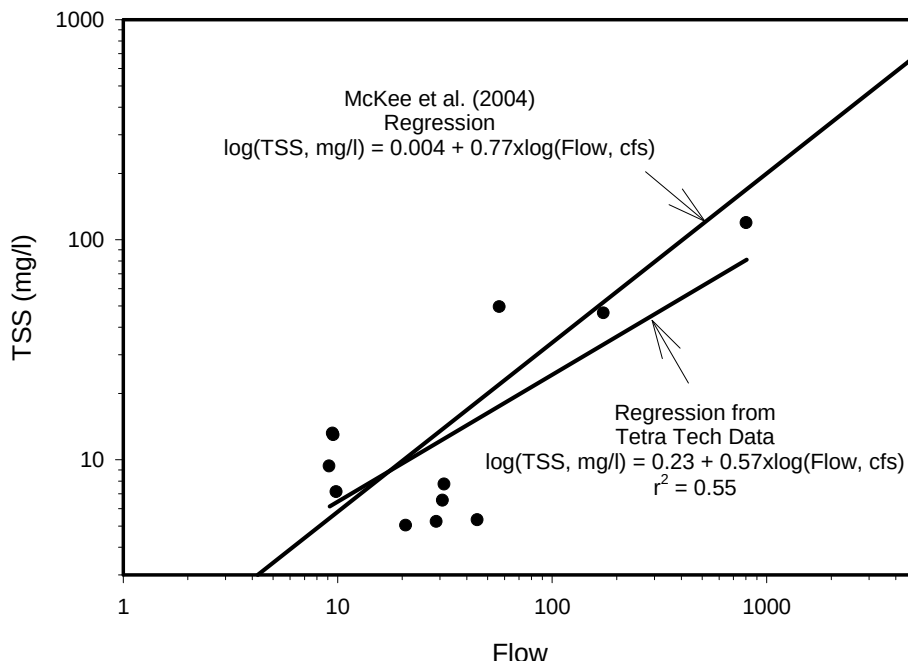


Figure 3-22 TSS-flow relationship in the Guadalupe River as reported by Tetra Tech (2005a) and McKee et al (2004). Graphic derived from Figure 6-2 in Tetra Tech (2005a). Original data not available.

3.1.5.3 Total Mercury – TSS

The total mercury versus TSS plot shows statistically significant differences among all water years (Figure 3-23). As seen in the total mercury to flow relationship (Figure 3-20), the SFEI data show two separate groupings of points. This relationship suggests that mercury may be derived from two separate sources. In contrast, the 2019 and 2023 data show a consistent single linear trend between mercury and TSS, suggesting that particulate mercury concentrations are likely constant and represent a single source.

The AECOM (2017) data show a considerably flatter relationship between total mercury and TSS. The 2015 water year was a below average year following a 4-year long drought associated with a lower potential for sediment and mercury mobilization.

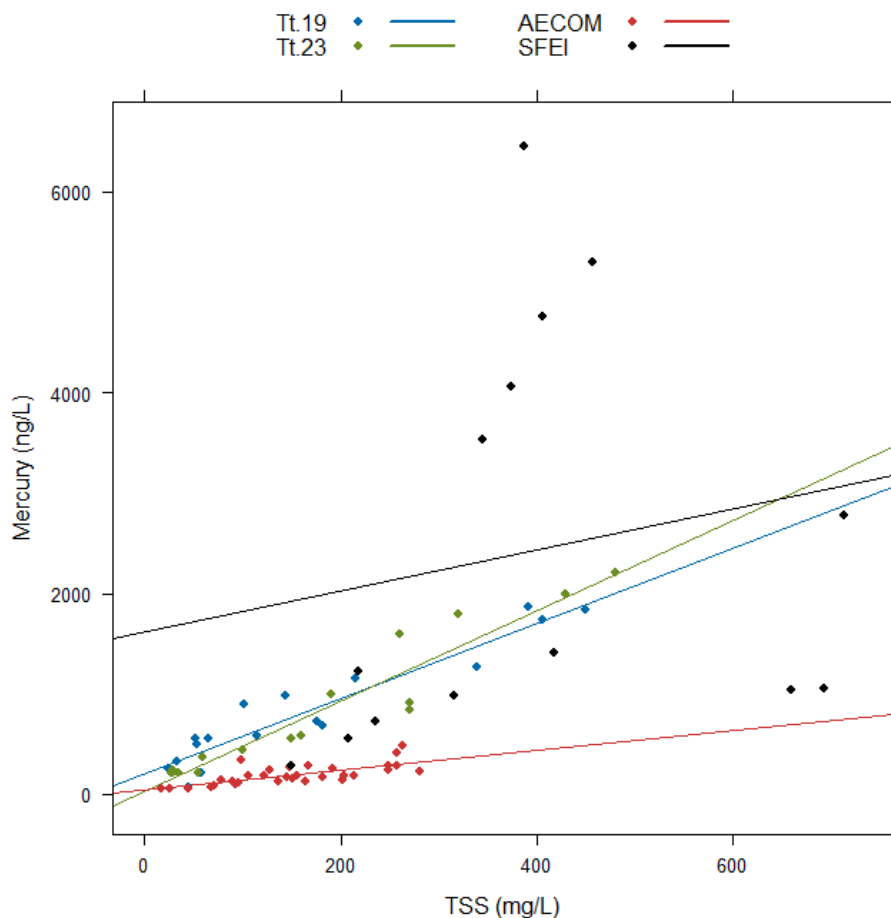


Figure 3-23 Mercury concentrations relative to TSS concentrations for Tetra Tech (2019 and 2023), SFEI (McKee et al 2018), and AECOM (2017) studies.

3.1.5.4 Particulate Mercury [mg(Hg)/kg(TSS)]

It is assumed that the mercury is transported attached to sediment particles and that the mercury concentration on the particles [mg(Hg)/kg(TSS)] is relatively constant when derived from the same source (urban versus mining). The results of an analysis of variance (ANOVA) of particulate mercury concentrations indicate that there are statistically significant differences among water years (Figure 3-24, Table 3-20). A Tukey HSD test indicated that the average AECOM concentrations are significantly lower than the average concentrations in either the present study or SFEI (McKee et al. 2018), and that the average concentrations from the 2019 and 2023 results and SFEI are similar.

Average particulate mercury concentration in the 2019 and 2023 surveys was 5.77 mg(Hg)/kg(TSS). This is consistent with the average concentration from mining-impacted areas reported in Tetra Tech (2005a) of approximately 5.80 mg(Hg) per kg(TSS) and is consistent with McKee et al (2018) particulate mercury estimate of 6 mg(Hg) per kg(TSS).

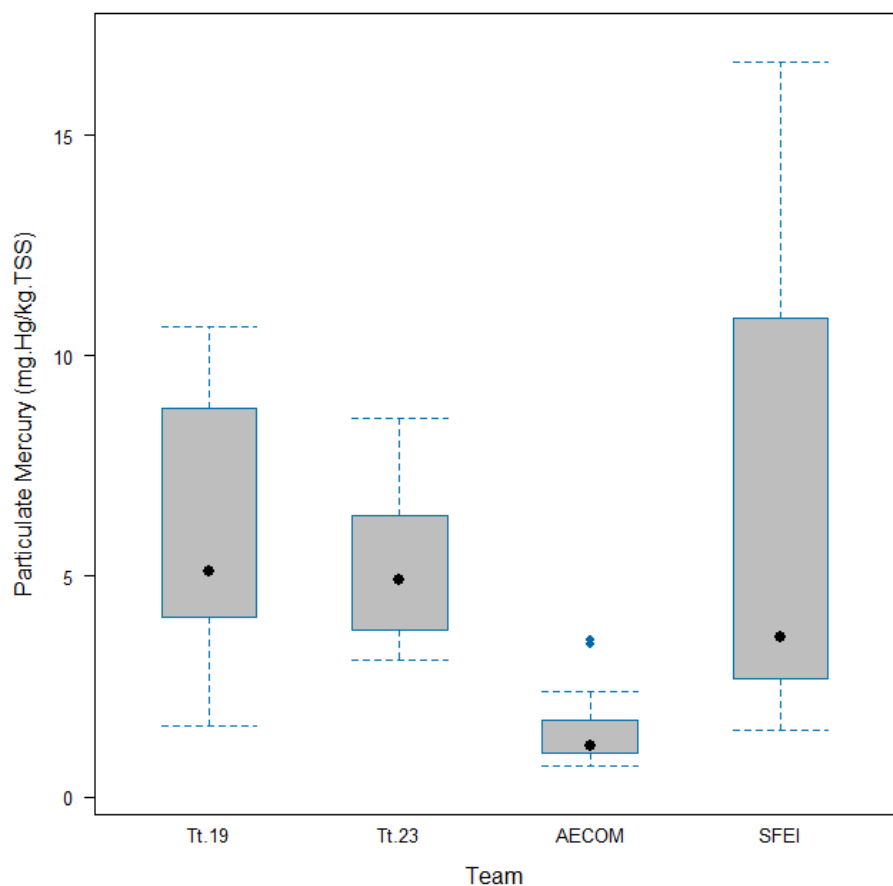


Figure 3-24 Comparison of mercury concentrations on sediment particles among studies.

Table 3-20
Analysis of Variance of Particulate Mercury Concentration between Studies

Source	df	Sum of Squares	Mean Square	F	Significance
Study	3	385	128.5	18.9	<<0.001
Error	74	503	6.8		

3.1.5.5 Load Estimates

Annual mercury loads calculated in this study (Table 3-17) are within the range of previously reported estimates (Figure 3-25). Tetra Tech (2005b) estimated the annual load from the Guadalupe River in 2004 to be 10 kg. McKee et al. (2017) summarized load estimates from the 2003 to 2014 water years to range between 1.5 and 116 kg per year. A single storm in January 2017 conveyed an estimated 70 kg of mercury (McKee et al. 2018). AECOM (2017) estimated annual loads ranging from 2.0 kg to 18.3 kg for the 2008 to 2015 water years. Estimated loads are largely a function of climatic conditions;

loads during dry years (e.g., 2012 to 2015, 2020 to 2022) are markedly lower than during wet years (e.g., 2023, 2017, 2019, 2023).

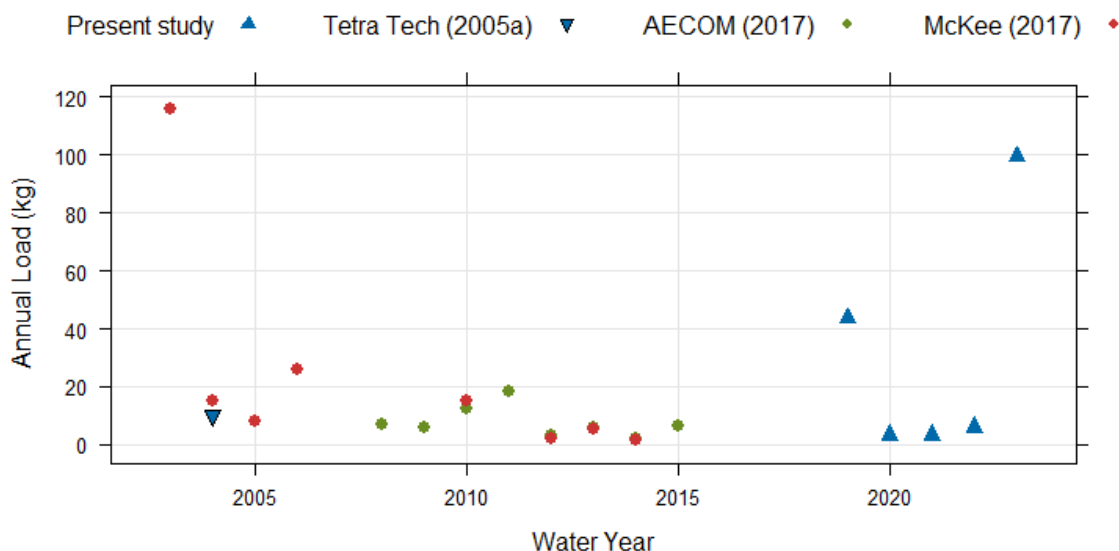


Figure 3-25 Annual mercury load estimates at the USGS gage above Highway 101 on the Guadalupe River.

3.2 FISH SAMPLING

Fish surveys were conducted in August-October 2019, July 2021, and June 2023. Survey reports are provided in Appendix B.

3.2.1 WATER QUALITY CONDITIONS

Sample sites included Alamitos Creek at Harry Road (ACR), Guadalupe Creek at Singletree Way (GCR), Lake Almaden (LAL), Guadalupe River at Foxworthy Avenue (GRF), Guadalupe River at Coleman Ave. (GRC), and Los Gatos Creek at Lincoln Ave. (GCL) (Figure 2-4, Table 2-3). Photographs of field sampling activities are provided in Appendix B.

General conditions and instantaneous water quality measurements during sampling efforts from 2019, 2021, and 2023 are summarized in Tables 3-21 to 3-23 for each sampling year. Water quality parameters included temperature, salinity, conductivity, dissolved oxygen, and pH. pH was not measured in 2023 due to an equipment malfunction. Sampling was generally conducted starting in the early morning and continued as long as field conditions remained within the limits required by sampling permits.

Table 3-21
Water Quality Conditions During 2019 Fish Survey

Site	Temperature (°C)	Salinity (PPT)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH
22 August 2019					
Alamitos Creek at Harry Rd.	20.3	0.2	408.8	11.4	8.47
Guadalupe Creek at Singletree Way	20.3	0.2	338.9	11.7	8.4
16 October 2019					
Guadalupe Creek at Singletree Way	14.2	0.2	433.7	9.48	8.55
Lake Almaden	18.3	0.3	472	7.9	8.85
Guadalupe R. at Foxworthy Ave.	17.7	0.3	444	8.55	9.42
Los Gatos Creek at Lincoln Ave.	16.6	0.2	285.1	10.57	9.1
17 October 2019					
Guadalupe R. at Coleman Ave.	17.0	0.6	1,040	12.7	8
Los Gatos Creek at Lincoln Ave.	17.3	0.2	1,000	12.2	8
29 October 2019					
Lake Almaden	16.6	0.2	425	-	8.9
Guadalupe R. at Foxworthy Ave.	12.97	0.3	526	6.44	8.28
Los Gatos Creek at Lincoln Ave.	16.1	0.3	334	-	8.2

Table 3-22
Water Quality Conditions During 2021 Fish Survey

Site	Temperature (°C)	Salinity (PPT)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH
6 July 2021					
Guadalupe Creek at Singletree Way	19.9	0.3	636	3.35	9.5
	20.9	0.3	710	3.40	9.3
Guadalupe River at Coleman Ave.	19.7	0.5	962	6.47	9.7
	19.6	0.5	962	6.47	9.45

**Table 3-23
Water Quality Conditions During 2023 Fish Survey**

Site	Temperature (°C)	Salinity (PPT)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH
21 June 2023					
Los Gatos Creek at Lincoln Ave.	17	0.1	261.3	7.49	-
Guadalupe River at Foxworthy Ave.	17.8	0.2	445	7.01	-
	19.1	0.2	454	6.85	-
Guadalupe River at Coleman Ave.	19.5	0.2	614	5.50	-
	19.8	0.3	623	5.35	-
22 June 2023					
Alamitos Creek at Harry Rd.	15.0	0.2	431	5.21	-
	15.0	0.2	435	5.10	-
Alamitos Creek at Graystone Ln.	15.5	0.2	443	5.56	-
	16.1	0.2	444	5.56	-
Guadalupe Creek at Singletree Way	15.2	0.2	379	4.78	-
	15.5	0.2	379	4.70	-
26 June 2023					
Lake Almaden	20.8	0.2	489.8	5.70	-

3.2.2 TISSUE RESULTS

A combined total of 427 fish, including target and non-target species, was obtained during field surveys conducted in 2019, 2021, and 2023. Lengths and weights for all fish collected are provided in Appendix C.

A total of 299 fish were analyzed for total mercury in tissues. A summary of analyzed samples from the 2019, 2021, and 2023 sampling efforts is provided in Table 3-24. The TMDL identifies a target size for sampled fish of 50 mm to 150 mm fork length. However, 73 percent of the California roach collected were less than 50 mm. In contrast, 82 percent of the largemouth bass exceeded 50 mm fork length. Summary statistics for total mercury concentrations in fish tissue at each site are provided in Table 3-25. The analytical results from the fish tissue analyses are provided in Appendix D.

Table 3-24
Summary of Analyzed Fish Lengths and Weights

Year	Site	Species ¹	N	Fork Length (mm)			Weight (gm)		
				Mean	Min	Max	Mean	Min	Max
2019	Alamitos Creek at Harry Rd.	CR	20	36.5	28	49	0.68	0.32	1.60
	Los Gatos Creek at Lincoln Ave.	BG	1	50.0	-	-	2.29	-	-
		CR	14	60.9	50	71	2.72	1.57	4.70
	Guadalupe Creek at Singletree Way	CR	20	41.6	26	54	1.05	0.25	2.38
	Guadalupe R. at Coleman Ave.	CR	20	50.4	33	58	1.69	0.49	2.70
	Guadalupe R. at Foxworthy Ave.	BG	1	30.0	-	-	0.60	-	-
		CR	6	73.0	63	83	5.46	3.51	8.45
2021	Lake Almaden	BG	2	51.5	45	58	2.49	1.75	3.23
		LMB	18	74.2	55	98	5.87	2.52	13.3
2021	Guadalupe Creek at Singletree Way	CR	20	43.7	31	55	1.12	0.39	2.20
	Guadalupe R. at Coleman Ave.	CR	20	32.8	27	55	0.50	0.22	2.27
2023	Alamitos Creek at Graystone Ln.	CR	20	26.7	25	30	0.23	0.20	0.30
	Alamitos Creek at Harry Rd.	CR	20	51.5	39	64	1.97	0.60	3.50
	Los Gatos Creek at Lincoln Ave.	CR	20	39.5	32	80	0.88	0.50	5.00
	Guadalupe Creek at Singletree Way	CR	20	35.5	30	42	0.88	0.40	1.30
	Guadalupe R. at Coleman Ave.	CR	20	29.0	26	33	0.25	0.25	0.25
	Guadalupe R. at Foxworthy Ave.	BLC	1	44.0	-	-	1.00	-	-
		CR	2	43.5	42	45	0.75	0.50	1.00
		LMB	14	47.7	40	60	1.14	0.50	2.50
	Lake Almaden	LMB	20	73.2	61	88	5.95	2.90	11.4

¹ Species acronyms:

BG – Bluegill

BLC – Black Crappie

CR – California Roach

LMB – Largemouth Bass

Table 3-25
Fish Tissue Mercury Summary Statistics by Sampling Location

Year	Site	Species ¹	Total Fish	Average Hg concentration (ng/g, wet weight)	Median Hg Concentration (ng/g, wet weight)	Standard deviation
2019	Alamitos Creek at Harry Rd.	CR	20	566.5	543.0	234.2
		BG	1	76.3	76.3	-
	Los Gatos Creek at Lincoln Ave.	CR	14	55.5	52.6	15.2
	Guadalupe Creek at Singletree Way	CR	20	359.6	350.0	99.2
	Guadalupe R. at Coleman Ave.	CR	20	54.4	51.2	13.6
	Guadalupe R. at Foxworthy Ave.	BG	1	270.0	270.0	-
		CR	6	157.0	168.0	43.7
	Lake Almaden	BG	2	551.5	77.1	13.98
		LMB	18	938.5	290.1	28.86
2021	Guadalupe Creek at Singletree Way	CR	20	210.5	200	50
	Guadalupe R. at Coleman Ave.	CR	20	34.5	24	40.2
2023	Alamitos Creek at Graystone Ln.	CR	20	194.5	185	68.3
	Alamitos Creek at Harry Rd.	CR	20	499.5	500	144.6
	Los Gatos Creek at Lincoln Ave.	CR	20	55.4	20.5	105.8
	Guadalupe Creek at Singletree Way	CR	20	400	385	62
	Guadalupe R. at Coleman Ave.	CR	20	64.8	65.5	16.4
	Guadalupe R. at Foxworthy Ave.	BLC	1	550.0	550.0	-
		CR	2	410.0	410.0	14.1
		LMB	14	607.9	605.0	93.4
	Lake Almaden	LMB	20	597.5	570	111.3

Note: TMDL mercury criterion for 50-150 mm fish is 50 ng/g.

¹ Species acronyms:

BG – Bluegill

BLC – Black Crappie

CR – California Roach

LMB – Largemouth Bass

The relationship between mercury concentration and fish size (fork length) at the seven sampling sites for each sampling year is shown in Figure 3-26. The size distribution of California roach was similar among stream sites. Due to limited size ranges of target fish, a relationship between mercury concentration and fork length is not evident in the data. California roach was the predominant species in streams sampled, whereas largemouth bass were the target fish caught in Almaden Lake.

Mercury concentrations tended to be higher in largemouth bass than other species analyzed although some overlap in concentration ranges was present, particularly in 2023. All largemouth bass exceeded the TMDL mercury target concentration of 50 ng/g in tissues. Mercury bioaccumulates through the food chain (i.e., relative to trophic level) and increases with increasing size (age) of the individual fish. Largemouth bass are the highest trophic level (3.8) species collected and generally larger, whereas California roach are trophic level 2.4 (Froese and Pauly 2023).

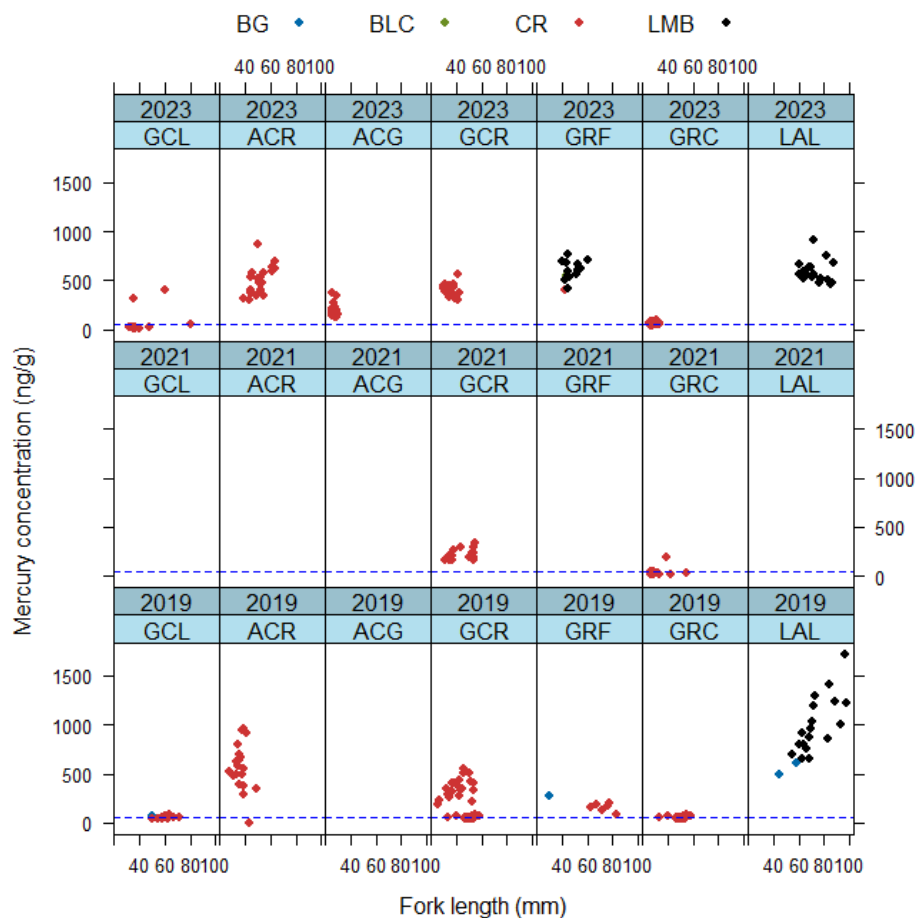


Figure 3-26 Mercury concentrations in fish tissue at each sampling site by year. GCL = Los Gatos Creek at Lincoln Ave (reference stream); ACR = Alamos Creek at Harry Road; ACG = Alamos Creek at Graystone Lane; GCR = Guadalupe Creek at Singletree Way; GRF = Guadalupe River at Foxworthy Avenue; GRC = Guadalupe River at Coleman Avenue; LAL = Lake Almaden. California roach (CR) was the dominant species collected at stream sites. Largemouth bass (LMB) were collected at Almaden Lake and at GRF in 2023. Bluegill (BG) were occasionally collected as were black crappie (BLC).

Due to the predominance of California roach in the available data, additional analyses were conducted for this species at the stream sites using analysis of variance (ANOVA) followed by the Tukey HSD test to identify differences between sites (Table 3-26). The

ANOVA indicated that there were significant differences in mercury concentrations between sites.

Table 3-26
Analysis of Variance of Mercury Concentration in California Roach between Streams

Source	df	Sum of Squares	Mean Square	F	Significance
Stream	5	6669318	1333864	84.21	<<0.001
Error	236	3738249	15840		

The results of the Tukey HSD analysis suggest an upstream to downstream gradient in tissue mercury concentrations. California roach from Los Gatos Creek at Lincoln Ave (the reference site) and from Guadalupe River at Coleman Avenue (the most downstream site) had similar mercury concentrations that approximated 50 ng/g (wet weight, ww) (Figure 3-27). The Alamitos Creek at Graystone Lane, Guadalupe Creek at Singletree Way, and Guadalupe River at Foxworthy Ave locations had statistically similar mercury concentrations. The highest mercury concentrations in California roach occurred in the Alamitos Creek at Harry Road site, which is the most upstream site and closest to the mining area.

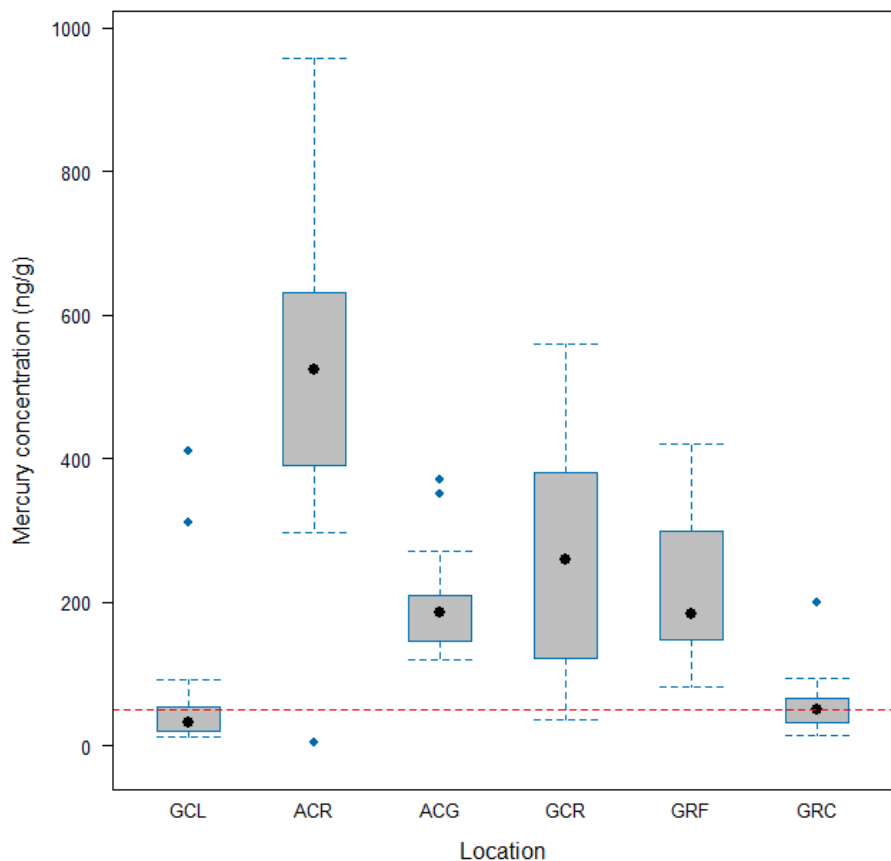


Figure 3-27 Distribution of mercury concentrations in California roach tissue at stream sampling sites in 2019-2023. Dashed red line indicates TMDL target concentration (50 ng/g ww) in 50-150 mm fish. GCL = Los Gatos Creek at Lincoln Ave (reference stream); ACR = Alamos Creek at Harry Road; ACG = Alamos Creek at Graystone Lane; GCR = Guadalupe Creek at Singletree Way; GRF = Guadalupe River at Foxworthy Avenue; GRC = Guadalupe River at Coleman Avenue.

3.2.3 TEMPORAL TRENDS IN FISH TISSUE

Temporal patterns in fish tissue concentrations at each survey site were analyzed using ANOVA. This analysis includes data from the present study and the 2016 survey (AECOM 2017). Although the AECOM report did not provide fork length for the sampled fish, the report did provide individual weights for fish. The weights of fish sampled by AECOM are similar to the weights in fish from the present study; therefore, comparisons are appropriate. These analyses focused on California roach at stream sites and largemouth bass in Almaden Lake.

Temporal patterns in mercury concentrations in California roach varied among sampling locations (Figure 3-28). No statistically significant differences were detected among survey dates at Los Gatos Creek at Lincoln Ave (GCL) or Alamos Creek at Harry Road (ACR). California roach from Alamos Creek at Graystone Lane (ACG) decreased in concentration between 2016 and 2023. Mercury concentrations in California roach at Guadalupe Creek at Singletree Way (GCR) were significantly lower in 2021 than in

2016, 2019, or 2023. At the Guadalupe River at Foxworthy Avenue (GRF) site, California roach concentrations were higher in 2023 than in 2019, although only six roach were collected in 2019 and two in 2023, which limits the power of this test to provide definitive conclusions. The ANOVA for Guadalupe River at Coleman Avenue (GRC) indicated that fish from 2021 had lower mercury concentrations than fish in 2019 or 2023; however, differences between years are small and all concentrations approximated 50 ng/g (ww).

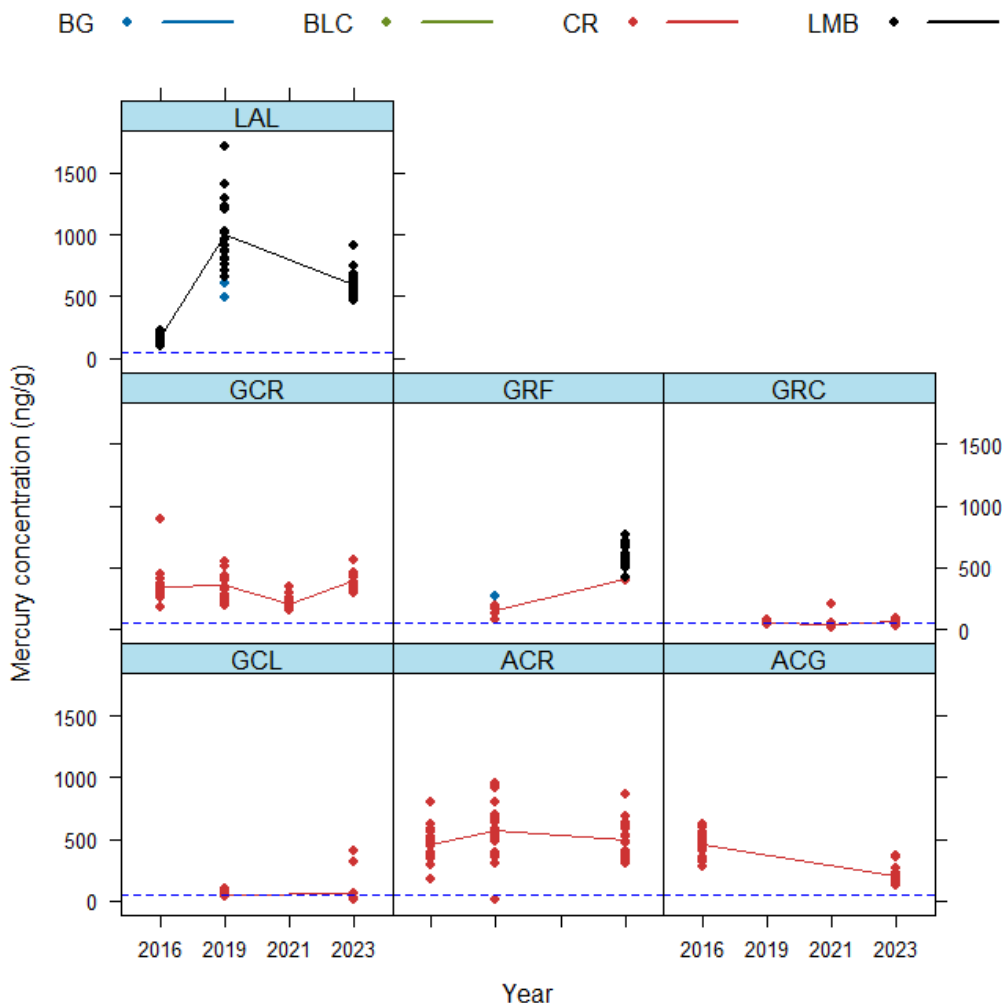


Figure 3-28 Temporal patterns in fish tissue concentrations at survey sites. Blue dashed line indicates the TMDL fish tissue target of 50 ng/g (ww) for 50 to 150 mm fish. 2016 data are from AECOM (2017). GCL = Los Gatos Creek at Lincoln Avenue (reference stream); ACR = Alamitos Creek at Harry Road; ACG = Alamitos Creek at Graystone Lane; GCR = Guadalupe Creek at Singletree Way; GRF = Guadalupe River at Foxworthy Avenue; GRC = Guadalupe River at Coleman Avenue; LAL = Almaden Lake.

Tetra Tech (2005a) sampled California roach in Los Gatos Creek and at multiple mercury-impacted sites within the Guadalupe River watershed. Mercury concentrations

in the California roach from Los Gatos Creek ranged between 20 ng/g (ww) and 40 ng/g (ww), similar to the present study. Tissue mercury concentrations in the mercury-impacted streams ranged from 40 ng/g (ww) to 480 ng/g (ww) (see Table 8-5 in Tetra Tech 2005a).

Analysis of variance on largemouth bass mercury concentrations in Lake Almaden indicate significant differences among all three years sampling occurred (2016, 2019, and 2023). AECOM (2017) reported largemouth bass tissue concentrations in Almaden Lake in 2016 averaging 176 ng/g, which is three to five times lower than observed in the present study. Concentrations in age 1+ largemouth bass collected in 2004 from Almaden Lake ranged from 210 ng/g to 530 ng/g, which is at the low end of the range reported in this study (Tetra Tech 2005a).

4 SUMMARY

Four storms meeting mobilization criteria were sampled during the monitoring cycle at the USGS gage above Highway 101. The decision to mobilize was based on rainfall and flow predictions from the CNRFC website.

The survey team mobilized for two storms during the 2019 water year. The first storm lasted approximately four days, while the second storm was sampled over eight days due to continued elevated flow. These continued flows appear to have been related to releases from the reservoirs. Due to drought conditions no storm sampling was conducted in water years 2020 through 2022. Two storms were sampled in the 2023 water year. The first storm lasted approximately three days and the second storm lasted five days. Peak discharge at the above Highway 101 gage ranged from 2,140 cfs (storm A) to 5,040 cfs (storm D).

Rainfall in the upper watershed (based on Valley Water ALERT gages) started between 18 and 24 hours prior to the start of sampling at the Highway 101 gage and continued for up to 24 hours after the start of sampling. Estimated total discharge during sampled storms at the Highway 101 bridge was approximately twice that at the Almaden Expressway gage (Table 4-1). Peak discharges at the Highway 101 gage lagged behind the Almaden Expressway gage by approximately 11 hours.

Table 4-1
Total Discharge During 2019 and 2023 Storm Periods

Year	Highway 101	Almaden Expressway	Factor
2019	34,727.2 af	17,334.0 af	2.0
2023	56,604.5 af	30,052.2 af	1.9

AECOM (2017) summarized total annual discharge at the USGS gage above Highway 101 for water years 2003 to 2016 period as ranging between 22,000 acre-feet in water year 2015 to 102,700 acre-feet in water year 2006.

Total mercury loads were calculated using two methods: a two-step method involving calculation of TSS concentration based on discharge followed by calculation of mercury concentration based on TSS; and a direct method in which mercury concentrations were directly calculated based on measured discharge. Both methods provided similar estimates of total load per storm. Estimated loads during the 2019 to 2023 period (this study) ranged from 4.46 to 19.72 kg(Hg) per storm. In contrast, the estimated load from a single large storm in January 2017 was 70 kg (McKee et al 2018).

Annual mercury loads were calculated for each water year between 2019 and 2023. Inter-annual loading was highly variable and depended on rainfall intensity and duration during storms, and total rainfall through the year. Annual loads ranged from 2.16 kg in 2020 to 100.48 kg in 2023 and averaged 30 to 32 kg/year depending on the calculation method.

Mercury loads were also estimated for water years 2019 to 2022 based on daily average discharge, average TSS concentration, and daily TSS loads at the Highway 101 USGS gage. These calculations resulted in load estimates that were slightly higher than loads calculated using the 15-minute flow measurements.

Fish were sampled in creeks and Lake Almaden in the Guadalupe River watershed during three sampling windows in 2019, 2021, and 2023. Drought conditions limited fish collection activities in 2021, necessitating the need for the 2023 survey. Collection efforts targeted the California roach at stream sites and the largemouth bass at Lake Almaden. A combined total of 427 fish were collected, weighed, and measured to fork-length during the monitoring cycle. Of these, 299 fish were analyzed for total mercury.

The TMDL specifies a target concentration of 50 ng/g (ww) in fish between 50 mm and 150 mm in fork length. In this study 73 percent of the California roach analyzed for mercury were less than 50 mm in fork length. It should be noted that this species typically achieves a length of 83 mm, with a maximum reported length of 110 mm (Froese and Pauly 2023). Therefore, caution should be exercised when assessing compliance of this species to the TMDL target concentration.

Total mercury concentrations in California roach from Los Gatos Creek at Lincoln Avenue (reference site) and Guadalupe River at Coleman Avenue (most downstream site) were similar and approximated 50 ng/g (wet weight). Total mercury concentrations in California roach at the other four stream sites were significantly higher during all sampling events, with the highest mercury concentrations found in California roach from Alamitos Creek at Harry Road, averaging over 500 ng/g (wet weight). Alamitos Creek at Harry Road is the most upstream of the survey sites and is closest to the former mercury mining area.

Eighty-two percent of the largemouth bass collected exceeded 50 mm, ranging between 40 mm and 98 mm, with an average fork length of 71 mm. Mercury concentrations in largemouth bass from Almaden Lake varied between averages of 600 to 1,000 ng/g (wet weight). Although fish tissue concentrations varied between sampling dates, no temporal trend was observed.

The SFRWQCB identified the following key questions to be addressed as part of the monitoring program:

What is the mercury load from Guadalupe River delivered to San Francisco Bay in large storms?

Load estimates in the four monitored storms ranged from 4.46 kg (storm A) to 19.72 kg (storm D), with estimated annual loads ranging from 2.16 kg/y (WY 2020) to 100.48 kg/y (WY 2023), averaging between 30 and 32 kg/year.

What component of these storm loads are from legacy mining and urban stormwater runoff sources?

This question could not be answered directly based on sampling at only the Highway 101 gage. An estimate of the relative contributions can be made

based on comparison with the discharge at the Almaden Expressway gage. As discussed in Section 3.1.2 approximately half of the discharge at the Highway 101 gage is due to inputs above the Almaden Expressway gage. Concurrent measurements of mercury and TSS concentrations at both gages (and potentially other sites) would be required.

On average, particulate mercury concentrations have remained consistent, although variable, between storms. Suspended sediment mercury concentrations reported by Tetra Tech (2005a) averaged 5.80 mg/kg, nearly identical to the average concentration obtained in this study (5.77 mg/kg), and similar to concentrations reported in McKee et al (2018) (Figure 3-24). Particulate mercury concentration also remained relatively constant across samples within a given storm. These results suggest that a single mercury source is mobilized throughout the storm flows. We hypothesize that mercury has been distributed throughout the watershed and that streambed sediments are mobilized once flows exceed a threshold velocity.

If this hypothesis is true, a survey of mercury concentrations on streambed sediments should result in similar concentrations throughout the watershed downstream of the reservoirs.

What is the temporal trend in fish tissue mercury concentrations in remediation effectiveness indicators in Lake Almaden, Guadalupe, Almaden, and Calero Reservoirs, Alamitos and Guadalupe Creeks, and the Guadalupe River?

Data collected during this study did not indicate any temporal pattern in fish tissue concentrations in the creeks or Lake Almaden. Tissue concentrations at the most downstream sampling location (Guadalupe River at Coleman Avenue) and the reference site (Los Gatos Creek at Lincoln Avenue) were approximately 50 ng/g (wet weight). Due to small size of the California roach comparisons to the TMDL target should be made with caution.

Tissue concentrations in both California roach and largemouth bass sampled in 2004 (Tetra Tech 2005a) are consistent with the concentrations reported in the present study.

This study addressed only mercury concentrations in fish from the Guadalupe River, tributary creeks and Lake Almaden. Results of Valley Water's sampling efforts in the reservoirs are reported separately in their bi-annual reports.

Is there a temporal trend in fish tissue mercury concentrations at reference sites, and if so, how does it inform interpretation of remediation effectiveness indicators?

Fish tissue concentrations at the reference site (Los Gatos Creek at Lincoln Avenue) did not exhibit any temporal trend and approximated 50 ng mercury /g (ww). However, due to small size of the California roach (73% less than 50

mm fork length) comparisons to the TMDL target should be made with caution.

The ability of the TMDL monitoring program to assess compliance with the TMDL target concentration using the California roach is likely to be limited because of the small size of the fish (typically 83 mm as adult) and the age class required (1+ year) will preclude obtaining fish within the 50 mm to 150 mm target size range.

5 REFERENCES

- AECOM. 2017. Guadalupe River Coordinated Monitoring Program 5-Year Report. Submitted to: Santa Clara County Department of Parks and Recreation. Los Gatos, CA.
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- Froese, R. and D. Pauly. Editors. 2023. *FishBase*. World Wide Web electronic publication. www.fishbase.org, version (10/2023).
- McKee, L., J. Leatherbarrow, R. Eads, and L. Freeman, 2004. Concentrations and Loads of PCBs, OC Pesticides, and Mercury Associated with Suspended Particles in the Lower Guadalupe River, San Jose, California. San Francisco Estuary Institute (SFEI). Contribution #86.
- McKee, L.J., A. Bonnema, N. David, J.A. Davis, A. Franz, R. Grace, B.K. Greenfield, A.N. Gilbreath, C. Grosso, W.A. Heim, J.A. Hunt, J.E. Leatherbarrow, S. Lowe, S.A. Pearce, J.M. Ross, and D. Yee. 2017. Long-term variation in concentrations and mass loads in a semi-arid watershed influenced by historic mercury mining and urban pollutant sources. *Sci. Total Env.* 605-606: 482-497.
- McKee, L. A. Gilbreath, S. Pearce, and I. Shimabuku. 2018. *Guadalupe River Mercury Concentrations and Loads during the Large Rare January 2017 Storm*. A technical report prepared for the Regional Monitoring Program for Water Quality in San Francisco Bay (RMP), Sources, Pathways and Loadings Workgroup (SPLWG). Contribution No. 837. San Francisco Estuary Institute, Richmond, California.
- National Marine Fisheries Service (NMFS). 2000. *Guidelines for Electrofishing Waters Containing Salmonids Listed under the Endangered Species Act*. June.
- R Core Team (2023). R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing, Vienna, Austria. <<https://www.R-project.org/>>.
- Tetra Tech. 2005a. Guadalupe River Watershed Mercury TMDL Project: Technical Memorandum 5.3.2, Data Collection Report (volume 1). Prepared for Santa Clara Valley Water District. San Jose, CA. February 2005.

Tetra Tech. 2005b. *Guadalupe River Watershed Mercury TMDL Report: Final Conceptual Model Report*. Prepared for San Francisco Bay Regional Water Quality Control Board. Oakland, CA. May 2005.

Tetra Tech. 2018. *Coordinated Monitoring Program for Guadalupe River Watershed Mercury TMDL. Agreement No. A4123A. Monitoring Plan (2018 To 2023)*. Prepared for: Santa Clara Valley Water District (Valley Water).

APPENDIX A

STORMWATER ANALYTICAL LABORATORY

REPORTS



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

28 February 2019

Theodore E. Donn, Jr, PhD
Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette, CA 94549
RE: WSRCD

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

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

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall". The signature is written in a cursive, flowing style.

Amy Goodall
Project Manager



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GR-19-SA-WB	9B00206-01	Water	04-Feb-19 00:30	06-Feb-19 10:40
GR-19-SA-EQ	9B00206-02	Water	04-Feb-19 00:30	06-Feb-19 10:40
GR-19-SA-T1	9B00206-03	Water	04-Feb-19 01:45	06-Feb-19 10:40
GR-19-SA-T1 Dissolved	9B00206-04	Water	04-Feb-19 01:45	06-Feb-19 10:40
GR-19-SA-T2	9B00206-05	Water	04-Feb-19 03:15	06-Feb-19 10:40
GR-19-SA-T2 Dissolved	9B00206-06	Water	04-Feb-19 03:15	06-Feb-19 10:40
GR-19-SA-T3	9B00206-07	Water	04-Feb-19 06:15	06-Feb-19 10:40
GR-19-SA-T3 Dissolved	9B00206-08	Water	04-Feb-19 06:15	06-Feb-19 10:40
GR-19-SA-T4	9B00206-09	Water	04-Feb-19 09:15	06-Feb-19 10:40
GR-19-SA-T4 Dissolved	9B00206-10	Water	04-Feb-19 09:15	06-Feb-19 10:40
GR-19-SA-T5	9B00206-11	Water	04-Feb-19 12:00	06-Feb-19 10:40
GR-19-SA-T5 Dissolved	9B00206-12	Water	04-Feb-19 12:00	06-Feb-19 10:40
GR-19-SA-T6	9B00206-13	Water	04-Feb-19 11:30	06-Feb-19 10:40
GR-19-SA-T6 Dissolved	9B00206-14	Water	04-Feb-19 11:30	06-Feb-19 10:40
GR-19-SA-T7	9B00206-15	Water	04-Feb-19 13:30	06-Feb-19 10:40
GR-19-SA-T7 Dissolved	9B00206-16	Water	04-Feb-19 13:30	06-Feb-19 10:40
Laboratory Filter Blank	9B00206-17	Water	05-Feb-19 00:00	06-Feb-19 10:40
GR-19-SA-T8	9B00206-18	Water	06-Feb-19 10:45	06-Feb-19 10:40
GR-19-SA-T8 Dissolved	9B00206-19	Water	06-Feb-19 10:45	06-Feb-19 10:40
GR-19-SA-T9	9B00206-20	Water	07-Feb-19 10:00	06-Feb-19 10:40
GR-19-SA-T9	9B00206-21	Water	07-Feb-19 10:00	06-Feb-19 10:40
Laboratory Filter Blank	9B00206-22	Water	08-Feb-19 13:00	06-Feb-19 10:40

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager



Frontier Global Sciences

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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 06-Feb-19 10:40 and on 08-Feb-19. The samples were received intact, on-ice within a sealed cooler at

<u>Cooler</u>	<u>Temp C°</u>
2/6/19	3.2
2/8/19	4.7

Samples were sent to Analytical Resources, Inc. located in Tukwila, WA for Total Organic Carbon – Plumb Method and Total Suspended Solids by SM2540D-97 per the project set up. The final report can be found at the end of this report after the Notes and Definitions section. Please note that there are two reports from ARI, one for each shipment.

Due to an unforeseen weather event, EFGS could not ship the TSS samples that arrived on 2/8/19 until 2/13/19 and they arrived at ARI out of hold for the method. The client was notified and requested that we proceed with testing.

Dissolved samples were filtered on the day of receipt.

SAMPLE PREPARATION AND ANALYSIS

Per client request samples 9B00206-03 and 9B00206-04 were used as the QC source for the Matrix Spike (MS) and the Matrix Spike Duplicate (MSD).

Samples were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.

Samples were prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS-070).

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager



Frontier Global Sciences

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Tetra Tech, Inc. Lafayette

3746 Mt. Diablo Blvd., Suite 300

Lafayette CA, 94549

Project: WSRCD

Project Number: Guadalupe R Project

Project Manager: Theodore E. Donn, Jr, PhD

Reported:

28-Feb-19 14:30

accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences fell within established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

3 of 62

Sample Receipt Checklist

Client: 289 tcd

Date & Time Received: 1035 2-6-19

Date Labeled: 2-6-19 Labeled By: USL

Project: _____

Received By: SM

Label Verified By: JKH

of Coolers Received: 2 Samples Arrived By: ☒ Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: ☐ None/Ambient ☒ Loose Ice ☐ Gel Ice ☐ Dry Ice Coolant Required: Y/N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>X</u>	
Custody Seals are present and intact:	<u>N</u>	
Custody seals signed:	<u>N/A</u>	

TID: <u>181139804</u> CF: <u>70.5°C</u> Date/time: <u>1035 2-6-19</u> By: <u>SM</u>	
Cooler 1: <u>2.7</u> °C w/ CF: <u>3.2</u> °C	Cooler 4: _____ °C w/ CF: _____ °C
Cooler 2: <u>3.0</u> °C w/ CF: <u>3.5</u> °C	Cooler 5: _____ °C w/ CF: _____ °C
Cooler 3: _____ °C w/ CF: _____ °C	Cooler 6: _____ °C w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>Y</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>NA</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>Y</u>	

Anomalies/Non-conformances (attach additional pages if needed):

9B00206



9B00206

General Notes:

This is the first set of samples from this storm. A second set will be sent later.

Please report all results to the MDL, J-flag results between MDL and RL

Please report results in pdf format with Excel EDD deliverable

Project	SampleID	Medium	Date	Time	Preservation	Hg-total (EPA 1631E)	Hg-dissolved (EPA-1631E)	Laboratory filtration	MeHg (EPA 1631/FGS-70)	Total Suspended Solids (EPA 160.2 or SM2540d)	Comments
Storm A	GR-19-SA-WB	Water	4-Feb-2019	0:30	cold	X					
Storm A	GR-19-SA-WB	Water	4-Feb-2019	0:30	H ₂ SO ₄				X		
Storm A	GR-19-SA-EQ	Water	4-Feb-2019	0:30	cold	X					
Storm A	GR-19-SA-EQ	Water	4-Feb-2019	0:30	H ₂ SO ₄				X		
Storm A	GR-19-SA-T1	Water	4-Feb-2019	1:45	COLD	X					
Storm A	GR-19-SA-T1	Water	4-Feb-2019	1:45	COLD		X	X			
Storm A	GR-19-SA-T1	Water	4-Feb-2019	1:45	H ₂ SO ₄				X		
Storm A	GR-19-SA-T1	Water	4-Feb-2019	1:45	COLD					X	Subcontracted
Storm A	GR-19-SA-T2	Water	4-Feb-2019	3:15	COLD	X					
Storm A	GR-19-SA-T2	Water	4-Feb-2019	3:15	COLD		X	X			
Storm A	GR-19-SA-T2	Water	4-Feb-2019	3:15	H ₂ SO ₄				X		
Storm A	GR-19-SA-T2	Water	4-Feb-2019	3:15	COLD					X	Subcontracted
Storm A	GR-19-SA-T3	Water	4-Feb-2019	6:15	COLD	X					
Storm A	GR-19-SA-T3	Water	4-Feb-2019	6:15	COLD		X	X			
Storm A	GR-19-SA-T3	Water	4-Feb-2019	6:15	H ₂ SO ₄				X		
Storm A	GR-19-SA-T3	Water	4-Feb-2019	6:15	COLD					X	Subcontracted
Storm A	GR-19-SA-T4	Water	4-Feb-2019	9:15	COLD	X					
Storm A	GR-19-SA-T4	Water	4-Feb-2019	9:15	COLD		X	X			
Storm A	GR-19-SA-T4	Water	4-Feb-2019	9:15	H ₂ SO ₄				X		
Storm A	GR-19-SA-T4	Water	4-Feb-2019	9:15	COLD					X	Subcontracted
Storm A	GR-19-SA-T5	Water	4-Feb-2019	12:00	COLD	X					
Storm A	GR-19-SA-T5	Water	4-Feb-2019	12:00	COLD		X	X			
Storm A	GR-19-SA-T5	Water	4-Feb-2019	12:00	H ₂ SO ₄				X		
Storm A	GR-19-SA-T5	Water	4-Feb-2019	12:00	COLD					X	Subcontracted
Storm A	GR-19-SA-T6	Water	4-Feb-2019	11:30	COLD	X					
Storm A	GR-19-SA-T6	Water	4-Feb-2019	11:30	COLD		X	X			
Storm A	GR-19-SA-T6	Water	4-Feb-2019	11:30	H ₂ SO ₄				X		
Storm A	GR-19-SA-T6	Water	4-Feb-2019	11:30	COLD					X	Subcontracted
Storm A	GR-19-SA-T7	Water	4-Feb-2019	13:30	COLD	X					
Storm A	GR-19-SA-T7	Water	4-Feb-2019	13:30	COLD		X	X			
Storm A	GR-19-SA-T7	Water	4-Feb-2019	13:30	H ₂ SO ₄				X		
Storm A	GR-19-SA-T7	Water	4-Feb-2019	13:30	COLD					X	Subcontracted

Relinquished by:

Relinquished by:

Received by:

Received by:

Ship To:
Patrick Garcia-Strickland
eurofins-Frontier Global Sciences
11720 North Creek Parkway North, Suite 400
Bothell, WA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech
3746 Mt. Diablo Blvd.
Lafayette, CA
ted.donn@tetratech.com

General Notes:

This is the first set of samples from this storm. A second set will be sent later.

Perform QA analyses on these samples.

Please report all results to the MDL, J-flag results between MDL and RL

Please report results in pdf format with Excel EDD deliverable

Project	SampleID	Medium	Date	Time	Preservation	Hg-total (EPA 1631E)	Hg-dissolved (EPA-1631E)	Laboratory filtration	MeHg (EPA 1631/FGS-70)	Total Suspended Solids (EPA 160.2 or SM2540d)	Comments
Storm A	GR-19-SA-T8	Water	6-Feb-2019	10:45	COLD	X					
Storm A	GR-19-SA-T8	Water	6-Feb-2019	10:45	COLD		X	X			
Storm A	GR-19-SA-T8	Water	6-Feb-2019	10:45	H ₂ SO ₄				X		
Storm A	GR-19-SA-T8	Water	6-Feb-2019	10:45	COLD					X	Subcontracted
Storm A	GR-19-SA-T9	Water	7-Feb-2019	10:00	COLD	X					
Storm A	GR-19-SA-T9	Water	7-Feb-2019	10:00	COLD		X	X			
Storm A	GR-19-SA-T9	Water	7-Feb-2019	10:00	H ₂ SO ₄				X		
Storm A	GR-19-SA-T9	Water	7-Feb-2019	10:00	COLD					X	Subcontracted

7744 2085 9096

Cr-Yes
FedEx
4.7

Relinquished by:

Patrick Garcia-Strickland
2/7/2019

Received by:

Relinquished by:

Received by:

Brian Wadsworth
FFS 2/8/19 10:25

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
9B00206

SENDING LABORATORY:

Eurofins Frontier Global Sciences, LLC
11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Phone: (425) 686-1996
Fax: (425) 686-3096
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, STE 100
Tukwila, WA 98168
Phone: (206) 621-6490
Fax: (206) 695-6201

Analysis

Comments

Sample ID: GR-19-SA-T1

EFGS Lab ID: 9B00206-03

Matrix: Water

Sampled: 04-Feb-19 01:45 (GMT-08:00) Pacific Time (US & MS/MSD)

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T2

EFGS Lab ID: 9B00206-05

Matrix: Water

Sampled: 04-Feb-19 03:15 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T3

EFGS Lab ID: 9B00206-07

Matrix: Water

Sampled: 04-Feb-19 06:15 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

88W050 FEB 8, 2019 ACT WT 29.5 LBS #PK 1
SVC 1DA BL WT
TRACKING# 1Z88W0500151585444 ALL CURRENCY USD
DEPT NO.: OVERHEAD
REF 2: SUBCONTRACT

HC 0.00 CNS 0.00 FRT: SHP
SHIPMENT NR RATE CHARGES: SVC 12.28 USD
DV 0.00 COD 0.00 RS 0.00
DC 0.00 DGD 0.00
AH 0.00 PR 0.00 ROD 0.00
TOT NR CHG 12.28 NR+HC12.28

THIS DOCUMENT IS NOT AN INVOICE.

Released By

Date

Released By

Date

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
9B00206

Analysis

Comments

Sample ID: GR-19-SA-T4

EFGS Lab ID: 9B00206-09

Matrix: Water

Sampled: 04-Feb-19 09:15 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T5

EFGS Lab ID: 9B00206-11

Matrix: Water

Sampled: 04-Feb-19 12:00 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T6

EFGS Lab ID: 9B00206-13

Matrix: Water

Sampled: 04-Feb-19 11:30 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T7

EFGS Lab ID: 9B00206-15

Matrix: Water

Sampled: 04-Feb-19 13:30 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Released By

Date

Received By

Date

Released By

Date

Received By

Date

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
9B00312

SENDING LABORATORY:

Eurofins Frontier Global Sciences, LLC
11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Phone: (425) 686-1996
Fax: (425) 686-3096
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, STE 100
Tukwila, WA 98168
Phone: (206) 621-6490
Fax: (206) 695-6201

Analysis	Comments

Sample ID: GR-19-SA-T8

EFGS Lab ID: 9B00312-01 Matrix: Water

Sampled: 06-Feb-19 10:45 (GMT-08:00) Pacific Time (US &

Due: 11-Mar-19 19:00

Misc. Subcontract 1 **TOC Analysis**

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T9

EFGS Lab ID: 9B00312-03 Matrix: Water

Sampled: 07-Feb-19 10:00 (GMT-08:00) Pacific Time (US &

Due: 11-Mar-19 19:00

Misc. Subcontract 1 **TOC Analysis**

Containers Supplied:

57_1000 mL PETG (C)

Released By

Date

Received By

Date

Released By

Date

Received By

Date



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-WB

9B00206-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	0.10	0.08	0.50	ng/L	1	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	U

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-EQ

9B00206-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	0.10	0.08	0.50	ng/L	1	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	U

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T1

9B00206-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	559	4.17	25.0	ng/L	50	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.899	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T1 Dissolved
9B00206-04

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	23.0	0.08	0.50	ng/L	1	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T2

9B00206-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	582	4.17	25.0	ng/L	50	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	1.13	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T2 Dissolved
9B00206-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	15.9	0.08	0.50	ng/L	1	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T3

9B00206-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	685	4.17	25.0	ng/L	50	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.713	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T3 Dissolved
9B00206-08

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	11.9	0.08	0.50	ng/L	1	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T4

9B00206-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	989	4.17	25.0	ng/L	50	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.865	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T4 Dissolved
9B00206-10

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	16.7	0.08	0.50	ng/L	1	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

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Project: WSRCD
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Reported:
28-Feb-19 14:30

GR-19-SA-T5

9B00206-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	891	4.17	25.0	ng/L	50	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.775	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project Number: Guadalupe R Project
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Reported:
28-Feb-19 14:30

GR-19-SA-T5 Dissolved
9B00206-12

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	22.4	0.08	0.50	ng/L	1	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T6

9B00206-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	491	4.17	25.0	ng/L	50	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.732	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T6 Dissolved
9B00206-14

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	23.3	0.08	0.50	ng/L	1	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T7

9B00206-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	555	4.17	25.0	ng/L	50	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.771	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T7 Dissolved
9B00206-16

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	22.7	0.08	0.50	ng/L	1	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

Laboratory Filter Blank

9B00206-17

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	0.13	0.08	0.50	ng/L	1	F902285	06-Feb-19	9B20007	20-Feb-19	EPA 1631E	FB

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T8

9B00206-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	323	4.17	25.0	ng/L	50	F902285	20-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.587	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T8 Dissolved
9B00206-19

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	20.5	0.08	0.50	ng/L	1	F902285	20-Feb-19	9B20007	20-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T9

9B00206-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	253	4.17	25.0	ng/L	50	F902285	20-Feb-19	9B20007	20-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.404	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

GR-19-SA-T9

9B00206-21

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	22.9	0.83	5.00	ng/L	10	F902297	21-Feb-19	9B21010	21-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

Laboratory Filter Blank

9B00206-22

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	ND	0.08	0.50	ng/L	1	F902297	21-Feb-19	9B21010	21-Feb-19	EPA 1631E	FB, U

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F902266 - EFGS SOP2797 Methyl Hg Distillation for Water

Blank (F902266-BLK1)					Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F902266-BLK2)					Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	0.032	0.026	0.050	ng/L							
Blank (F902266-BLK3)					Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
LCS (F902266-BS1)					Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	0.951	0.026	0.050	ng/L	1.0000		95.1	70-130			
LCS Dup (F902266-BSD1)					Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	0.941	0.026	0.050	ng/L	1.0000		94.1	70-130	0.969	35	
Duplicate (F902266-DUP1)					Source: 9B00206-05 Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	0.755	0.026	0.050	ng/L		1.130			39.8	35	QR-07
Matrix Spike (F902266-MS1)					Source: 9B00206-03 Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	0.999	0.026	0.050	ng/L	1.0000	0.899	9.97	65-130			QM-07
Matrix Spike (F902266-MS2)					Source: 9B00505-03 Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	1.762	0.026	0.050	ng/L	1.0000	1.283	47.9	65-130			QM-02
Matrix Spike Dup (F902266-MSD1)					Source: 9B00206-03 Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	1.758	0.026	0.050	ng/L	1.0000	0.899	85.9	65-130	55.1	35	QR-08
Matrix Spike Dup (F902266-MSD2)					Source: 9B00505-03 Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	2.271	0.026	0.050	ng/L	1.0000	1.283	98.8	65-130	25.2	35	

Eurofins Frontier Global Sciences, LLC

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Amy Goodall, Project Manager



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F902285 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F902285-BLK1)					Prepared & Analyzed: 20-Feb-19						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F902285-BLK2)					Prepared & Analyzed: 20-Feb-19						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F902285-BLK3)					Prepared & Analyzed: 20-Feb-19						
Mercury	ND	0.08	0.50	ng/L							U
LCS (F902285-BS1)					Prepared & Analyzed: 20-Feb-19						
Mercury	15.26	0.08	0.50	ng/L	14.688		104	80-120			
LCS Dup (F902285-BSD1)					Prepared & Analyzed: 20-Feb-19						
Mercury	15.32	0.08	0.50	ng/L	14.688		104	80-120	0.339	24	
Duplicate (F902285-DUP1)					Source: 9B00206-03RE1		Prepared & Analyzed: 20-Feb-19				
Mercury	563.5	4.17	25.0	ng/L		559.2			0.759	24	AD
Matrix Spike (F902285-MS1)					Source: 9B00206-03RE1		Prepared & Analyzed: 20-Feb-19				
Mercury	2571	8.34	50.0	ng/L	2020.0	559.2	99.6	71-125			AS
Matrix Spike (F902285-MS2)					Source: 9B00206-04		Prepared & Analyzed: 20-Feb-19				
Mercury	127.4	0.42	2.50	ng/L	101.00	22.99	103	71-125			AS
Matrix Spike Dup (F902285-MSD1)					Source: 9B00206-03RE1		Prepared & Analyzed: 20-Feb-19				
Mercury	2614	8.34	50.0	ng/L	2020.0	559.2	102	71-125	1.63	24	AS
Matrix Spike Dup (F902285-MSD2)					Source: 9B00206-04		Prepared & Analyzed: 20-Feb-19				
Mercury	126.4	0.42	2.50	ng/L	101.00	22.99	102	71-125	0.769	24	AS

Eurofins Frontier Global Sciences, LLC

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Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F902297 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F902297-BLK1)					Prepared & Analyzed: 21-Feb-19						
Mercury	0.10	0.08	0.50	ng/L							
Blank (F902297-BLK2)					Prepared & Analyzed: 21-Feb-19						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F902297-BLK3)					Prepared & Analyzed: 21-Feb-19						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F902297-BLK4)					Prepared & Analyzed: 21-Feb-19						
Mercury	ND	0.09	0.52	ng/L							QB-06, U
LCS (F902297-BS1)					Prepared & Analyzed: 21-Feb-19						
Mercury	15.06	0.08	0.50	ng/L	14.688		103	80-120			
LCS Dup (F902297-BSD1)					Prepared & Analyzed: 21-Feb-19						
Mercury	15.52	0.08	0.50	ng/L	14.688		106	80-120	3.04	24	
Duplicate (F902297-DUP1)					Source: 9B00206-21RE1		Prepared & Analyzed: 21-Feb-19				
Mercury	22.38	0.83	5.00	ng/L		22.86			2.10	24	AD
Matrix Spike (F902297-MS1)					Source: 9B00206-21RE1		Prepared & Analyzed: 21-Feb-19				
Mercury	124.7	0.83	5.00	ng/L	101.00	22.86	101	71-125			AS
Matrix Spike (F902297-MS2)					Source: 9B00257-01		Prepared & Analyzed: 21-Feb-19				
Mercury	134.9	0.87	5.20	ng/L	105.00	31.41	98.5	71-125			AS
Matrix Spike Dup (F902297-MSD1)					Source: 9B00206-21RE1		Prepared & Analyzed: 21-Feb-19				
Mercury	125.8	0.83	5.00	ng/L	101.00	22.86	102	71-125	0.855	24	AS

Eurofins Frontier Global Sciences, LLC

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Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F902297 - EFGS SOP2796 EPA 1631 Oxidation

Matrix Spike Dup (F902297-MSD2)

Source: 9B00257-01

Prepared & Analyzed: 21-Feb-19

Mercury	136.6	0.87	5.20	ng/L	105.00	31.41	100	71-125	1.24	24	AS

Eurofins Frontier Global Sciences, LLC

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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
28-Feb-19 14:30

Notes and Definitions

U	Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
QR-08	The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
QR-07	The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
QM-02	The MS and/or MSD recoveries outside acceptance limits, due to spike concentration less than 1 times the sample concentration. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
QB-06	The blank was preserved to 5% BrCl rather than 1%. The control limit for blanks preserved to greater than 1% BrCl is the preservation percentage multiplied by the MRL.
FB	This blank is a filtration blank. Data is reported for informational purposes only.
AS	This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
AD	This matrix duplicate is an analytical duplicate.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the method detection limit if reported to the MDL or above the reporting limit if reported to the MRL.
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

36 of 62



Analytical Resources, Incorporated
Analytical Chemists and Consultants

22 February 2019

Amy Goodall
Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell, WA 98011

RE: 9B00206

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
19B0067

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.

9B00206

19B00067

SENDING LABORATORY:

Eurofins Frontier Global Sciences, LLC
11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Phone: (425) 686-1996
Fax: (425) 686-3096
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, STE 100
Tukwila, WA 98168
Phone : (206) 621-6490
Fax: (206) 695-6201

Analysis

Comments

Sample ID: GR-19-SA-T1

EFGS Lab ID: 9B00206-03

Matrix: Water

Sampled: 04-Feb-19 01:45 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

MS/MSD

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T2

EFGS Lab ID: 9B00206-05

Matrix: Water

Sampled: 04-Feb-19 03:15 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T3

EFGS Lab ID: 9B00206-07

Matrix: Water

Sampled: 04-Feb-19 06:15 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Released By

Date

Received By

Date

Released By

Date

Received By

Date

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.

9B00206

19B0067

Analysis

Comments

Sample ID: GR-19-SA-T4

EFGS Lab ID: 9B00206-09

Matrix: Water

Sampled: 04-Feb-19 09:15 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T5

EFGS Lab ID: 9B00206-11

Matrix: Water

Sampled: 04-Feb-19 12:00 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T6

EFGS Lab ID: 9B00206-13

Matrix: Water

Sampled: 04-Feb-19 11:30 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T7

EFGS Lab ID: 9B00206-15

Matrix: Water

Sampled: 04-Feb-19 13:30 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Released By

Date

Received By

Date

Released By

Date

Received By

Date



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GR-19-SA-T1	19B0067-01	Water	04-Feb-2019 01:45	07-Feb-2019 10:21
GR-19-SA-T2	19B0067-02	Water	04-Feb-2019 03:15	07-Feb-2019 10:21
GR-19-SA-T3	19B0067-03	Water	04-Feb-2019 06:15	07-Feb-2019 10:21
GR-19-SA-T4	19B0067-04	Water	04-Feb-2019 09:15	07-Feb-2019 10:21
GR-19-SA-T5	19B0067-05	Water	04-Feb-2019 12:00	07-Feb-2019 10:21
GR-19-SA-T6	19B0067-06	Water	04-Feb-2019 11:30	07-Feb-2019 10:21
GR-19-SA-T7	19B0067-07	Water	04-Feb-2019 13:30	07-Feb-2019 10:21



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

Work Order Case Narrative

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The LCS percent recoveries were within control limits.



Cooler Receipt Form

ARI Client: Eurofins Frontier

Project Name: 40300206

COC No(s): 19B0067 (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 19B0067

Tracking No: 128640500151585444 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1021

2.6°C

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 0005206

Cooler Accepted by: SSW

Date: 02/07/19

Time: 1021

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

Were all bottles sealed in individual plastic bags? YES NO

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI: NA

Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: SSW Date: 2-7-19 Time: 1053 Labels checked by: SSW

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions: 2 labels on all bottles.
Bottle label for GR-19-SA-T6 and GR-19-SA-T7 have
Sample date as 2-5-19, 2-4-19 on COC.

By: SSW Date: 2-7-19



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

GR-19-SA-T1
19B0067-01 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/04/2019 01:45

Instrument: BAL2 Analyst: UW

Analyzed: 02/08/2019 08:55

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0067-01

Preparation Batch: BHB0192

Sample Size: 280 mL

Prepared: 08-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	4	4	65	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
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Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

GR-19-SA-T2
19B0067-02 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/04/2019 03:15

Instrument: BAL2 Analyst: UW

Analyzed: 02/08/2019 08:55

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0067-02

Preparation Batch: BHB0192

Sample Size: 250 mL

Prepared: 08-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	4	4	114	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
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Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

GR-19-SA-T3
19B0067-03 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/04/2019 06:15

Instrument: BAL2 Analyst: UW

Analyzed: 02/08/2019 08:55

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0067-03

Preparation Batch: BHB0192

Sample Size: 120 mL

Prepared: 08-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	8	8	182	mg/L	



Eurofins Frontier Global Sciences
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Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

GR-19-SA-T4
19B0067-04 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/04/2019 09:15

Instrument: BAL2 Analyst: UW

Analyzed: 02/08/2019 08:55

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0067-04

Preparation Batch: BHB0192

Sample Size: 120 mL

Prepared: 08-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	8	8	143	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
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Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

GR-19-SA-T5
19B0067-05 (Water)

Wet Chemistry

Method: SM 2540 D-97
Instrument: BAL2 Analyst: UW

Sampled: 02/04/2019 12:00

Analyzed: 02/08/2019 08:55

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BHB0192 Sample Size: 150 mL
Prepared: 08-Feb-2019 Final Volume: 1000 mL

Extract ID: 19B0067-05

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	7	7	101	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

GR-19-SA-T6
19B0067-06 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/04/2019 11:30

Instrument: BAL2 Analyst: UW

Analyzed: 02/08/2019 08:55

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0067-06

Preparation Batch: BHB0192

Sample Size: 270 mL

Prepared: 08-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	4	4	53	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

GR-19-SA-T7
19B0067-07 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/04/2019 13:30

Instrument: BAL2 Analyst: UW

Analyzed: 02/08/2019 08:55

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0067-07

Preparation Batch: BHB0192

Sample Size: 270 mL

Prepared: 08-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	4	4	52	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

Wet Chemistry - Quality Control

Batch BHB0192 - No Prep Wet Chem

Instrument: BAL2 Analyst: UW

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BHB0192-BLK1)										
					Prepared: 08-Feb-2019 Analyzed: 08-Feb-2019 08:55					
Suspended Solids	ND	1	1	mg/L						U
LCS (BHB0192-BS1)										
					Prepared: 08-Feb-2019 Analyzed: 08-Feb-2019 08:55					
Suspended Solids	48	1	1	mg/L	50.00		96.0 90-110			
Duplicate (BHB0192-DUP1)										
					Source: 19B0067-01 Prepared: 08-Feb-2019 Analyzed: 08-Feb-2019 08:55					
Suspended Solids	67	4	4	mg/L		65		2.12	20	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

Certified Analyses included in this Report

Analyte	Certifications		
SM 2540 D-97 in Water			
Suspended Solids		DoD-ELAP,WADOE,NELAP	
Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	02/07/2019
CALAP	California Department of Public Health CAELAP	2748	06/30/2019
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	01/01/2021
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-011	05/12/2019
WADOE	WA Dept of Ecology	C558	06/30/2019
WA-DW	Ecology - Drinking Water	C558	06/30/2019



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:54

Notes and Definitions

U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.



Analytical Resources, Incorporated
Analytical Chemists and Consultants

22 February 2019

Amy Goodall
Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell, WA 98011

RE: 9B00206

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
19B0164

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.

9B00206

19B0164

Analysis	Comments

Sample ID: GR-19-SA-T8

EFGS Lab ID: 9B00206-18

Matrix: Water

Sampled: 06-Feb-19 10:45 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Sample ID: GR-19-SA-T9

EFGS Lab ID: 9B00206-20

Matrix: Water

Sampled: 07-Feb-19 10:00 (GMT-08:00) Pacific Time (US &

Due: 07-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

57_1000 mL PETG (C)

Released By

Date

Received By

Date

Released By

Date

Received By

Date



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GR-19-SA-T8	19B0164-01	Water	06-Feb-2019 10:45	15-Feb-2019 11:57
GR-19-SA-T9	19B0164-02	Water	07-Feb-2019 10:00	15-Feb-2019 11:57



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:58

Work Order Case Narrative

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The LCS percent recoveries were within control limits.



Cooler Receipt Form

ARI Client: EFG-S

Project Name: 9B00206

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 1980164

Tracking No: 1286W050014955-7596 (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? _____

(YES) NO

Were custody papers included with the cooler? _____

(YES) NO

Were custody papers properly filled out (ink, signed, etc.) _____

(YES) NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1157

0.3°C

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 0005206

Cooler Accepted by: JSW

Date: 02/15/19

Time: 1157

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? _____

YES (NO)

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? _____

NA (YES) NO

Were all bottles sealed in individual plastic bags? _____

(YES) NO

Did all bottles arrive in good condition (unbroken)? _____

(YES) NO

Were all bottle labels complete and legible? _____

(YES) NO

Did the number of containers listed on COC match with the number of containers received? _____

(YES) NO

Did all bottle labels and tags agree with custody papers? _____

(YES) NO

Were all bottles used correct for the requested analyses? _____

(YES) NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...

(NA) YES NO

Were all VOC vials free of air bubbles? _____

(NA) YES NO

Was sufficient amount of sample sent in each bottle? _____

(YES) NO

Date VOC Trip Blank was made at ARI _____

(NA)

Was Sample Split by ARI: (NA) YES

Date/Time: _____

Equipment: _____

Split by: _____

Samples Logged by: JSW

Date: 02/15/19

Time: 1402

Labels checked by: JSW

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
Additional Notes, Discrepancies, & Resolutions:			
By: _____	Date: _____		



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:58

GR-19-SA-T8
19B0164-01 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/06/2019 10:45

Instrument: BAL2 Analyst: UW

Analyzed: 02/15/2019 14:54

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0164-01

Preparation Batch: BHB0329

Sample Size: 500 mL

Prepared: 15-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	2	2	33	mg/L	H



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:58

GR-19-SA-T9
19B0164-02 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/07/2019 10:00

Instrument: BAL2 Analyst: UW

Analyzed: 02/15/2019 14:54

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0164-02

Preparation Batch: BHB0329

Sample Size: 600 mL

Prepared: 15-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	2	2	24	mg/L	H



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:58

Wet Chemistry - Quality Control

Batch BHB0329 - No Prep Wet Chem

Instrument: BAL2 Analyst: UW

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BHB0329-BLK1)										
Prepared: 15-Feb-2019 Analyzed: 15-Feb-2019 14:54										
Suspended Solids	ND	1	1	mg/L						U
LCS (BHB0329-BS1)										
Prepared: 15-Feb-2019 Analyzed: 15-Feb-2019 14:54										
Suspended Solids	49	1	1	mg/L	50.00		97.4 90-110			



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:58

Certified Analyses included in this Report

Analyte

Certifications

SM 2540 D-97 in Water

Suspended Solids

DoD-ELAP, WADOE, NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	02/07/2019
CALAP	California Department of Public Health CAELAP	2748	06/30/2019
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	01/01/2021
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-011	05/12/2019
WADOE	WA Dept of Ecology	C558	06/30/2019
WA-DW	Ecology - Drinking Water	C558	06/30/2019



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00206
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 08:58

Notes and Definitions

H	Hold time violation - Hold time was exceeded.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

15 March 2019

Theodore E. Donn, Jr, PhD
Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette, CA 94549
RE: WSRCD

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

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

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall". The signature is written in a cursive, flowing style.

Amy Goodall
Project Manager



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GR-19-SB-WB	9B00505-01	Water	13-Feb-19 08:27	15-Feb-19 10:10
GR-19-SB-EQ	9B00505-02	Water	13-Feb-19 08:27	15-Feb-19 10:10
GR-19-SB-T2	9B00505-03	Water	14-Feb-19 03:45	15-Feb-19 10:10
GR-19-SB-T2 Dissolved	9B00505-04	Water	14-Feb-19 03:45	15-Feb-19 10:10
GR-19-SB-T3	9B00505-05	Water	14-Feb-19 05:00	15-Feb-19 10:10
GR-19-SB-T3 Dissolved	9B00505-06	Water	14-Feb-19 05:00	15-Feb-19 10:10
GR-19-SB-T4	9B00505-07	Water	14-Feb-19 08:00	15-Feb-19 10:10
GR-19-SB-T4 Dissolved	9B00505-08	Water	14-Feb-19 08:00	15-Feb-19 10:10
GR-19-SB-T5	9B00505-09	Water	14-Feb-19 12:00	15-Feb-19 10:10
GR-19-SB-T5 Dissolved	9B00505-10	Water	14-Feb-19 12:00	15-Feb-19 10:10
GR-19-SB-T6	9B00505-11	Water	14-Feb-19 14:00	15-Feb-19 10:10
GR-19-SB-T6 Dissolved	9B00505-12	Water	14-Feb-19 14:00	15-Feb-19 10:10
Laboratory Filter Blank	9B00505-13	Water	15-Feb-19 00:00	15-Feb-19 10:10
GR-19-SB-SED1	9B00505-14	Soil/Sediment	15-Feb-19 14:15	15-Feb-19 10:10
GR-19-SB-SED2	9B00505-15	Soil/Sediment	15-Feb-19 14:16	15-Feb-19 10:10
GR-19-SB-SED3	9B00505-16	Soil/Sediment	15-Feb-19 14:17	15-Feb-19 10:10
GR-19-SB-T7	9B00505-17	Water	15-Feb-19 14:45	15-Feb-19 10:10
GR-19-SB-T7 Dissolved	9B00505-18	Water	15-Feb-19 14:45	15-Feb-19 10:10
GR-19-SB-T8	9B00505-19	Water	18-Feb-19 09:00	15-Feb-19 10:10
GR-19-SB-T8 Dissolved	9B00505-20	Water	18-Feb-19 09:00	15-Feb-19 10:10
GR-19-SB-T9	9B00505-21	Water	21-Feb-19 07:45	15-Feb-19 10:10
GR-19-SB-T9 Dissolved	9B00505-22	Water	21-Feb-19 07:45	15-Feb-19 10:10
Laboratory Filter Blank	9B00505-23	Water	22-Feb-19 00:00	15-Feb-19 10:10

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 15-Feb-19 10:10 and on 22-Feb-19 9:55. The samples were received intact, on-ice within a sealed cooler at

<u>Cooler</u>	<u>Temp C°</u>
2/15/19 Shipment	1.0
2/22/19 Shipment	5.8

Samples were sent to Analytical Resources, Inc. located in Tukwila, WA for Total Organic Carbon – Plumb Method and Total Suspended Solids by SM2540D-97 per the project set up. The final report can be found at the end of this report after the Notes and Definitions section. Please note that there are two reports from ARI, one for each shipment.

Dissolved samples were filtered on the days of receipt.

SAMPLE PREPARATION AND ANALYSIS

Water samples were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.

Water samples were prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS-070).

Total solids analysis was performed in accordance with method SM2540B. Total solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction which may be outside of the method recommended holding time of 7 days from sample collection.

Sediment samples were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the

Eurofins Frontier Global Sciences, LLC

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Amy Goodall, Project Manager



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences fell within established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

Eurofins Frontier Global Sciences, LLC

The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

Sample Receipt Checklist

Client: Tetra Tech

Date & Time Received: 2/15/19 1010

Date Labeled: 2/15/19 Labeled By: BC

Project: _____

Received By: EKH

Label Verified By: EKH

of Coolers Received: 1 Samples Arrived By: ☒ Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: ☐ None/Ambient ☒ Loose Ice ☐ Gel Ice ☐ Dry Ice Coolant Required: Y / N Temp Blank Used: Y/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>N</u>	
Custody seals signed:	<u>N</u>	

TID: <u>18139804</u> CF: <u>+0.8 °C</u>	Date/time: <u>2/15/19 1010</u>	By: <u>EKH</u>
Cooler 1: <u>0.2</u> °C w/ CF: <u>1.0</u> °C	Cooler 4: _____ °C w/ CF: _____ °C	
Cooler 2: _____ °C w/ CF: _____ °C	Cooler 5: _____ °C w/ CF: _____ °C	
Cooler 3: _____ °C w/ CF: _____ °C	Cooler 6: _____ °C w/ CF: _____ °C	

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>N</u>	
Preservation type:	<u>Y</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>NA</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>Y</u>	

Anomalies/Non-conformances (attach additional pages if needed):

9B00505



Ship To:
Amy Goodall
eurofins-Frontier Global Sciences
11720 North Creek Parkway North, Suite 400
Bothell, WA

CHAIN OF CUSTODY

960505

Report to:
Dr. Ted Donn
Tetra Tech
3746 Mt. Diablo Blvd.
Lafayette, CA
ted.donn@tetratech.com

General Notes:

This is the first set of samples from this storm. A second set will be sent later.
Perform QA analyses on these samples.
Please report all results to the MDL, J-flag results between MDL and RL
Please report results in pdf format with Excel ECD deliverable

Project	SampleID	Medium	Date	Time	Preservation	Hg-total (EPA 1631E)	Hg-dissolved (EPA-1631E)	Laboratory filtration	MeHg (EPA 1630/FGS-70)	Total Suspended Solids (EPA 160.2 or SM2540d)	Comments
Storm B	GR-19-SB-WB	Water	13-Feb-2019	8:27	cold	X					
Storm B	GR-19-SB-ED	Water	13-Feb-2019	8:27	cold	X					
Storm B											
Storm B	GR-19-SB-T2	Water	14-Feb-2019	3:45	COLD	X					
Storm B	GR-19-SB-T2	Water	14-Feb-2019	3:45	COLD		X	X			
Storm B	GR-19-SB-T2	Water	14-Feb-2019	3:45	H ₂ SO ₄				X		
Storm B	GR-19-SB-T2	Water	14-Feb-2019	3:45	COLD					X	Subcontracted
Storm B											
Storm B	GR-19-SB-T3	Water	14-Feb-2019	5:00	COLD	X					
Storm B	GR-19-SB-T3	Water	14-Feb-2019	5:00	COLD		X	X			
Storm B	GR-19-SB-T3	Water	14-Feb-2019	5:00	H ₂ SO ₄				X		
Storm B	GR-19-SB-T3	Water	14-Feb-2019	5:00	COLD					X	Subcontracted
Storm B											
Storm B	GR-19-SB-T4	Water	14-Feb-2019	8:00	COLD	X					
Storm B	GR-19-SB-T4	Water	14-Feb-2019	8:00	COLD		X	X			
Storm B	GR-19-SB-T4	Water	14-Feb-2019	8:00	H ₂ SO ₄				X		
Storm B	GR-19-SB-T4	Water	14-Feb-2019	8:00	COLD					X	Subcontracted
Storm B											
Storm B	GR-19-SB-T5	Water	14-Feb-2019	12:00	COLD	X					
Storm B	GR-19-SB-T5	Water	14-Feb-2019	12:00	COLD		X	X			
Storm B	GR-19-SB-T5	Water	14-Feb-2019	12:00	H ₂ SO ₄				X		
Storm B	GR-19-SB-T5	Water	14-Feb-2019	12:00	COLD					X	Subcontracted
Storm B											
Storm B	GR-19-SB-T6	Water	14-Feb-2019	14:00	COLD	X					
Storm B	GR-19-SB-T6	Water	14-Feb-2019	14:00	COLD		X	X			
Storm B	GR-19-SB-T6	Water	14-Feb-2019	14:00	H ₂ SO ₄				X		
Storm B	GR-19-SB-T6	Water	14-Feb-2019	14:00	COLD					X	Subcontracted

Relinquished by:
Received by:

[Signature] 2/14/2019
[Signature] 2/15/19

Relinquished by:

Received by:

[Signature] ZKH zahra Henani 1.6°C
EFGS 2/15/19 ID10
FedEx 7744 7660 3160

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
9B00505

SENDING LABORATORY:

Eurofins Frontier Global Sciences, LLC
11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Phone: (425) 686-1996
Fax: (425) 686-3096
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, STE 100
Tukwila, WA 98168
Phone : (206) 621-6490
Fax: (206) 695-6201

Analysis	Comments

Sample ID: GR-19-SB-T2	
EFGS Lab ID: 9B00505-03	Matrix: Water
Sampled: 14-Feb-19 03:45 (GMT-08:00) Pacific Time (US &	Due: 18-Mar-19 19:00

Misc. Subcontract 2	TSS Analysis

Containers Supplied:

23 _Client Specific Bottle (

Sample ID: GR-19-SB-T3	
EFGS Lab ID: 9B00505-05	Matrix: Water
Sampled: 14-Feb-19 05:00 (GMT-08:00) Pacific Time (US &	Due: 18-Mar-19 19:00

Misc. Subcontract 2	TSS Analysis

Containers Supplied:

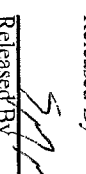
23 _Client Specific Bottle (

Sample ID: GR-19-SB-T4	
EFGS Lab ID: 9B00505-07	Matrix: Water
Sampled: 14-Feb-19 08:00 (GMT-08:00) Pacific Time (US &	Due: 18-Mar-19 19:00

Misc. Subcontract 2	TSS Analysis

Containers Supplied:

23 _Client Specific Bottle (

Released By: 	Date: 2/15/19
Released By: 	Date: 2-15-19

86W060 FEB 16, 2019 BL WT ACT WT 38.8 LBS #PK 1
SVC 1DA TRACKING# 1Z86W060444980694 ALL CURRENCY USD
DEPT NO.: OVERHEAD REF 2: SUBCONTRACT
HC 0.00 CNS 0.00 FRT: SHP
SHIPMENT NR RATE CHARGES: SVC 14.80 USD
DV 0.00 COD 0.00 RS 0.00
DC 0.00 DGD 0.00 SAT 0.00
AH 0.00 PR 0.00 ROD 0.00
TOT NR CHG 14.80 NR+HC14.80
THIS DOCUMENT IS NOT AN INVOICE.

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
9B00505

7 of 67

Analysis	Comments	
Sample ID: GR-19-SB-T5		
EFGS Lab ID: 9B00505-09	Matrix: Water	
Sampled: 14-Feb-19 12:00 (GMT-08:00) Pacific Time (US &		Due: 18-Mar-19 19:00
Misc. Subcontract 2		
	TSS Analysis	
<i>Containers Supplied:</i>		
23_Client Specific Bottle 1		
Sample ID: GR-19-SB-T6		
EFGS Lab ID: 9B00505-11	Matrix: Water	
Sampled: 14-Feb-19 14:00 (GMT-08:00) Pacific Time (US &		Due: 18-Mar-19 19:00
Misc. Subcontract 2		
	TSS Analysis	
<i>Containers Supplied:</i>		
23_Client Specific Bottle 1		

	2/15/19		
Released By	Date	Received By	Date
<i>SM</i>	<i>2-15-19</i>		
Released By	Date	Received By	Date

Sample Receipt Checklist

Client: Tetra Tech

Date & Time Received: 2/22/19 955 Date Labeled: 2/22/19 Labeled By: Ben

Project: _____

Received By: Ben Label Verified By: Ben

of Coolers Received: 1 Samples Arrived By: ✓ Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)

Coolant: ☐ None/Ambient ☒ Loose Ice ☐ Gel Ice ☐ Dry Ice Coolant Required: (Y)/N Temp Blank Used: (Y)/N for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>N</u>	
Custody seals signed:	<u>N</u>	

TID: <u>9804</u>	CF: <u>+0.8</u> °C	Date/time: <u>2/22/19 955</u>	By: <u>Ben</u>
Cooler 1: <u>5-0</u> °C	w/ CF: <u>5.8</u> °C	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: _____ °C	w/ CF: _____ °C	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: _____ °C	w/ CF: _____ °C	Cooler 6: _____ °C	w/ CF: _____ °C

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>Y</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>NA</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>Y</u>	

Anomalies/Non-conformances (attach additional pages if needed):

9B00505



CHAIN OF CUSTODY

9B00505

General Notes:

This is the first set of samples from this storm. A second set will be sent later.

Perform QA analyses on these samples.

Please report all results to the MDL, J-flag results between MDL and RL

Please report results in pdf format with Excel EDD deliverable

Project	SampleID	Medium	Date	Time	Preservation	Hg-total (EPA 1631E)	Dry Weight	Hg-dissolved (EPA-1631E)	Laboratory filtration	MeHg (EPA 1631/FGS-70)	Total Suspended Solids (EPA 160.2 or SM2540d)	Comments
Storm B	GR-19-SB-SED1	Sediment	15-Feb-2019	14:15	COLD	X	X					
Storm B	GR-19-SB-SED2	Sediment	15-Feb-2019	14:16	COLD	X	X					
Storm B	GR-19-SB-SED3	Sediment	15-Feb-2019	14:17	COLD	X	X					
Storm B	GR-19-SB-T7	Water	15-Feb-2019	14:45	COLD	X						
Storm B	GR-19-SB-T7	Water	15-Feb-2019	14:45	COLD			X	X			
Storm B	GR-19-SB-T7	Water	15-Feb-2019	14:45	H ₂ SO ₄					X		
Storm B	GR-19-SB-T7	Water	15-Feb-2019	14:45	COLD						X	Subcontracted
Storm B	GR-19-SB-T8	Water	18-Feb-2019	9:00	COLD	X						
Storm B	GR-19-SB-T8	Water	18-Feb-2019	9:00	COLD			X	X			
Storm B	GR-19-SB-T8	Water	18-Feb-2019	9:00	H ₂ SO ₄					X		
Storm B	GR-19-SB-T8	Water	18-Feb-2019	9:00	COLD						X	Subcontracted
Storm B	GR-19-SB-T9	Water	21-Feb-2019	7:45	COLD	X						
Storm B	GR-19-SB-T9	Water	21-Feb-2019	7:45	COLD			X	X			
Storm B	GR-19-SB-T9	Water	21-Feb-2019	7:45	H ₂ SO ₄					X		
Storm B	GR-19-SB-T9	Water	21-Feb-2019	7:45	COLD						X	Subcontracted

CS-MT FGS

5-8⁰⁰

FedEx

2/22/19

7744 8793 2883

9 of 67

Relinquished by:

[Signature] 2/21/2019

Relinquished by:

Received by:

[Signature] / Brian Wobbe
FGS

Received by:

9B00505

Page 2 of 3

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.
9B00505

Analysis	Comments

Sample ID: GR-19-SB-T9	

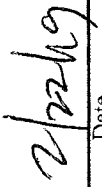
EFGS Lab ID: 9B00505-21	Matrix: Water

Sampled: 21-Feb-19 07:45 (GMT-08:00) Pacific Time (US &	

Due: 18-Mar-19 19:00

Misc. Subcontract 2	TSS Analysis

Containers Supplied:
23_Client Specific Bottle 1

	
Released By	Date
67	2/22/19
Released By	Date
	Received By
	Date



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3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-WB

9B00505-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	0.17	0.08	0.50	ng/L	1	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-EQ

9B00505-02

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	0.14	0.08	0.50	ng/L	1	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T2

9B00505-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	1150	4.17	25.0	ng/L	50	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	1.28	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T2 Dissolved
9B00505-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	8.28	0.08	0.50	ng/L	1	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T3

9B00505-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	1260	4.17	25.0	ng/L	50	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	1.11	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T3 Dissolved
9B00505-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	8.27	0.08	0.50	ng/L	1	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T4

9B00505-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	1830	4.17	25.0	ng/L	50	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	1.06	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	19-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T4 Dissolved
9B00505-08

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	12.0	0.08	0.50	ng/L	1	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T5

9B00505-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	1740	4.17	25.0	ng/L	50	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.885	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	20-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T5 Dissolved
9B00505-10

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	18.9	0.08	0.50	ng/L	1	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T6

9B00505-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	1870	4.17	25.0	ng/L	50	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	1.31	0.026	0.050	ng/L	1.25	F902266	19-Feb-19	9B20005	20-Feb-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T6 Dissolved
9B00505-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	19.1	0.08	0.50	ng/L	1	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

Laboratory Filter Blank

9B00505-13

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	0.19	0.08	0.50	ng/L	1	F902297	15-Feb-19	9B21010	21-Feb-19	EPA 1631E	FB

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-SED1

9B00505-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2807 Cold Aqua Regia Digestion for Hg

Mercury	2140	7.63	69.4	ng/g dry	1000	F902364	27-Feb-19	9B28009	28-Feb-19	EPA 1631B	

Sample Preparation: EFGS SOP5133 Solids Analysis

% Solids	66.8	-	0.1	% by Weight	1	F902365	27-Feb-19		28-Feb-19	SM 2540B	O-04, O-09

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-SED2

9B00505-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2807 Cold Aqua Regia Digestion for Hg

Mercury	2010	7.56	68.8	ng/g dry	1000	F902364	27-Feb-19	9B28009	28-Feb-19	EPA 1631B	

Sample Preparation: EFGS SOP5133 Solids Analysis

% Solids	67.9	-	0.1	% by Weight	1	F902365	27-Feb-19		28-Feb-19	SM 2540B	O-04, O-09

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-SED3

9B00505-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2807 Cold Aqua Regia Digestion for Hg

Mercury	808	1.62	14.8	ng/g dry	250	F902364	27-Feb-19	9B28009	28-Feb-19	EPA 1631B	

Sample Preparation: EFGS SOP5133 Solids Analysis

% Solids	72.5	-	0.1	% by Weight	1	F902365	27-Feb-19		28-Feb-19	SM 2540B	O-04, O-09

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T7

9B00505-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	731	4.17	25.0	ng/L	50	F903313	22-Feb-19	9C08014	08-Mar-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.735	0.026	0.050	ng/L	1.25	F903237	01-Mar-19	9C02006	01-Mar-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T7 Dissolved
9B00505-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	18.9	0.08	0.50	ng/L	1	F903313	22-Feb-19	9C08014	08-Mar-19	EPA 1631E	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T8

9B00505-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	208	4.17	25.0	ng/L	50	F903313	22-Feb-19	9C08014	08-Mar-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.310	0.026	0.050	ng/L	1.25	F903237	01-Mar-19	9C02006	01-Mar-19	EPA 1630	

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T8 Dissolved
9B00505-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	7.97	0.08	0.50	ng/L	1	F903313	22-Feb-19	9C08014	08-Mar-19	EPA 1631E	

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Amy Goodall, Project Manager



Frontier Global Sciences

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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T9

9B00505-21

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes

Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation

Mercury	71.2	4.17	25.0	ng/L	50	F903313	22-Feb-19	9C08014	08-Mar-19	EPA 1631E	

Sample Preparation: EFGS SOP2797 Methyl Hg Distillation for Water

Methyl Mercury (as Mercury)	0.178	0.026	0.050	ng/L	1.25	F903237	01-Mar-19	9C02006	01-Mar-19	EPA 1630	

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Amy Goodall, Project Manager

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

GR-19-SB-T9 Dissolved
9B00505-22

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	3.96	0.08	0.50	ng/L	1	F903313	22-Feb-19	9C08014	08-Mar-19	EPA 1631E	

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Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

Laboratory Filter Blank
9B00505-23

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	ND	0.08	0.50	ng/L	1	F903313	22-Feb-19	9C08014	08-Mar-19	EPA 1631E	U, FB

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F902266 - EFGS SOP2797 Methyl Hg Distillation for Water

Blank (F902266-BLK1)					Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F902266-BLK2)					Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	0.032	0.026	0.050	ng/L							
Blank (F902266-BLK3)					Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
LCS (F902266-BS1)					Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	0.951	0.026	0.050	ng/L	1.0000		95.1	70-130			
LCS Dup (F902266-BSD1)					Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	0.941	0.026	0.050	ng/L	1.0000		94.1	70-130	0.969	35	
Duplicate (F902266-DUP1)					Source: 9B00206-05 Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	0.755	0.026	0.050	ng/L		1.130			39.8	35	QR-07
Matrix Spike (F902266-MS1)					Source: 9B00206-03 Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	0.999	0.026	0.050	ng/L	1.0000	0.899	9.97	65-130			QM-07
Matrix Spike (F902266-MS2)					Source: 9B00505-03 Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	1.762	0.026	0.050	ng/L	1.0000	1.283	47.9	65-130			QM-02
Matrix Spike Dup (F902266-MSD1)					Source: 9B00206-03 Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	1.758	0.026	0.050	ng/L	1.0000	0.899	85.9	65-130	55.1	35	QR-08
Matrix Spike Dup (F902266-MSD2)					Source: 9B00505-03 Prepared & Analyzed: 19-Feb-19						
Methyl Mercury (as Mercury)	2.271	0.026	0.050	ng/L	1.0000	1.283	98.8	65-130	25.2	35	

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Amy Goodall, Project Manager

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Frontier Global Sciences

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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F902297 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F902297-BLK1)					Prepared & Analyzed: 21-Feb-19						
Mercury	0.10	0.08	0.50	ng/L							
Blank (F902297-BLK2)					Prepared & Analyzed: 21-Feb-19						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F902297-BLK3)					Prepared & Analyzed: 21-Feb-19						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F902297-BLK4)					Prepared & Analyzed: 21-Feb-19						
Mercury	ND	0.09	0.52	ng/L							QB-06, U
LCS (F902297-BS1)					Prepared & Analyzed: 21-Feb-19						
Mercury	15.06	0.08	0.50	ng/L	14.688		103	80-120			
LCS Dup (F902297-BSD1)					Prepared & Analyzed: 21-Feb-19						
Mercury	15.52	0.08	0.50	ng/L	14.688		106	80-120	3.04	24	
Duplicate (F902297-DUP1)					Source: 9B00206-21RE1 Prepared & Analyzed: 21-Feb-19						
Mercury	22.38	0.83	5.00	ng/L		22.86			2.10	24	AD
Matrix Spike (F902297-MS1)					Source: 9B00206-21RE1 Prepared & Analyzed: 21-Feb-19						
Mercury	124.7	0.83	5.00	ng/L	101.00	22.86	101	71-125			AS
Matrix Spike (F902297-MS2)					Source: 9B00257-01 Prepared & Analyzed: 21-Feb-19						
Mercury	134.9	0.87	5.20	ng/L	105.00	31.41	98.5	71-125			AS
Matrix Spike Dup (F902297-MSD1)					Source: 9B00206-21RE1 Prepared & Analyzed: 21-Feb-19						
Mercury	125.8	0.83	5.00	ng/L	101.00	22.86	102	71-125	0.855	24	AS

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Amy Goodall, Project Manager

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F902297 - EFGS SOP2796 EPA 1631 Oxidation

Matrix Spike Dup (F902297-MSD2)

Source: 9B00257-01

Prepared & Analyzed: 21-Feb-19

Mercury	136.6	0.87	5.20	ng/L	105.00	31.41	100	71-125	1.24	24	AS

Batch F902364 - EFGS SOP2807 Cold Aqua Regia Digestion for Hg

Blank (F902364-BLK1)

Prepared: 27-Feb-19 Analyzed: 28-Feb-19

Mercury	ND	0.11	1.00	ng/g wet							U

Blank (F902364-BLK2)

Prepared: 27-Feb-19 Analyzed: 28-Feb-19

Mercury	ND	0.11	1.00	ng/g wet							U

Blank (F902364-BLK3)

Prepared: 27-Feb-19 Analyzed: 28-Feb-19

Mercury	ND	0.11	1.00	ng/g wet							U

LCS (F902364-BS1)

Prepared: 27-Feb-19 Analyzed: 28-Feb-19

Mercury	7.95	0.11	1.00	ng/g wet	8.0000		99.4	75-125			

LCS Dup (F902364-BSD1)

Prepared: 27-Feb-19 Analyzed: 28-Feb-19

Mercury	7.88	0.11	1.00	ng/g wet	8.0000		98.5	75-125	0.906	24	

Duplicate (F902364-DUP1)

Source: 9B00505-14RE1

Prepared: 27-Feb-19 Analyzed: 28-Feb-19

Mercury	2468	7.21	65.7	ng/g dry		2144			14.1	24	

Matrix Spike (F902364-MS1)

Source: 9B00505-14RE1

Prepared: 27-Feb-19 Analyzed: 28-Feb-19

Mercury	2212	7.24	65.9	ng/g dry	530.28	2144	12.9	71-125			QM-14

Matrix Spike Dup (F902364-MSD1)

Source: 9B00505-14RE1

Prepared: 27-Feb-19 Analyzed: 28-Feb-19

Mercury	2570	7.11	64.7	ng/g dry	521.10	2144	81.9	71-125	146	24	QM-14, QR-08

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Amy Goodall, Project Manager



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Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F903237 - EFGS SOP2797 Methyl Hg Distillation for Water

Blank (F903237-BLK1)					Prepared & Analyzed: 01-Mar-19						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F903237-BLK2)					Prepared & Analyzed: 01-Mar-19						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
Blank (F903237-BLK3)					Prepared & Analyzed: 01-Mar-19						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
LCS (F903237-BS1)					Prepared & Analyzed: 01-Mar-19						
Methyl Mercury (as Mercury)	1.038	0.026	0.050	ng/L	1.0000		104	70-130			
LCS Dup (F903237-BSD1)					Prepared & Analyzed: 01-Mar-19						
Methyl Mercury (as Mercury)	0.989	0.026	0.050	ng/L	1.0000		98.9	70-130	4.84	35	
Duplicate (F903237-DUP1)					Source: 9B00505-17 Prepared & Analyzed: 01-Mar-19						
Methyl Mercury (as Mercury)	0.372	0.026	0.050	ng/L		0.735			65.7	35	QR-07
Matrix Spike (F903237-MS1)					Source: 9B00505-19 Prepared & Analyzed: 01-Mar-19						
Methyl Mercury (as Mercury)	0.955	0.026	0.050	ng/L	1.0000	0.310	64.6	65-130			QM-07
Matrix Spike Dup (F903237-MSD1)					Source: 9B00505-19 Prepared & Analyzed: 01-Mar-19						
Methyl Mercury (as Mercury)	1.253	0.026	0.050	ng/L	1.0000	0.310	94.4	65-130	27.0	35	

Batch F903313 - EFGS SOP2796 EPA 1631 Oxidation

Blank (F903313-BLK1)					Prepared & Analyzed: 08-Mar-19						
Mercury	ND	0.08	0.50	ng/L							U

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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F903313 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F903313-BLK2)					Prepared & Analyzed: 08-Mar-19						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F903313-BLK3)					Prepared & Analyzed: 08-Mar-19						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F903313-BLK4)					Prepared & Analyzed: 08-Mar-19						
Mercury	ND	0.09	0.52	ng/L							U
LCS (F903313-BS1)					Prepared & Analyzed: 08-Mar-19						
Mercury	14.89	0.08	0.50	ng/L	14.688		101	80-120			
LCS Dup (F903313-BSD1)					Prepared & Analyzed: 08-Mar-19						
Mercury	15.10	0.08	0.50	ng/L	14.688		103	80-120	1.42	24	
Duplicate (F903313-DUP1)					Source: 9B00505-17 Prepared & Analyzed: 08-Mar-19						
Mercury	721.8	8.34	50.0	ng/L		730.6			1.21	24	AD
Matrix Spike (F903313-MS1)					Source: 9B00505-17 Prepared & Analyzed: 08-Mar-19						
Mercury	2693	8.34	50.0	ng/L	2020.0	730.6	97.2	71-125			AS
Matrix Spike (F903313-MS2)					Source: 9B00505-19 Prepared & Analyzed: 08-Mar-19						
Mercury	1206	4.17	25.0	ng/L	1010.0	207.8	98.9	71-125			AS
Matrix Spike Dup (F903313-MSD1)					Source: 9B00505-17 Prepared & Analyzed: 08-Mar-19						
Mercury	2692	8.34	50.0	ng/L	2020.0	730.6	97.1	71-125	0.0433	24	AS
Matrix Spike Dup (F903313-MSD2)					Source: 9B00505-19 Prepared & Analyzed: 08-Mar-19						
Mercury	1188	4.17	25.0	ng/L	1010.0	207.8	97.1	71-125	1.48	24	AS

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Amy Goodall, Project Manager



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Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F902365 - EFGS SOP5133 Solids Analysis

Duplicate (F902365-DUP1)

Source: 9B00505-14

Prepared: 27-Feb-19 Analyzed: 28-Feb-19

% Solids	67.1	-	0.1	% by Weight		66.8			0.448	10	O-04, O-09

Eurofins Frontier Global Sciences, LLC

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Amy Goodall, Project Manager

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: WSRCD
Project Number: Guadalupe R Project
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
15-Mar-19 16:00

Notes and Definitions

U	Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
QR-08	The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
QR-07	The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
QM-14	The MS and/or MSD recoveries outside acceptance limits, due to spike concentration less than 2 times the sample concentration. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
QM-02	The MS and/or MSD recoveries outside acceptance limits, due to spike concentration less than 1 times the sample concentration. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
QB-06	The blank was preserved to 5% BrCl rather than 1%. The control limit for blanks preserved to greater than 1% BrCl is the preservation percentage multiplied by the MRL.
O-09	Total Solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction.
O-04	This sample was analyzed outside of the recommended holding time.
FB	This blank is a filtration blank. Data is reported for informational purposes only.
AS	This MS and/or MSD is an analytical spike and/or an analytical spike duplicate.
AD	This matrix duplicate is an analytical duplicate.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the method detection limit if reported to the MDL or above the reporting limit if reported to the MRL.
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



Analytical Resources, Incorporated
Analytical Chemists and Consultants

22 February 2019

Amy Goodall
Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell, WA 98011

RE: 9B00505

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
19B0184

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclosed Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

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SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.

9B00505

19B0184

SENDING LABORATORY:

Eurofins Frontier Global Sciences, LLC
11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Phone: (425) 686-1996
Fax: (425) 686-3096
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, STE 100
Tukwila, WA 98168
Phone : (206) 621-6490
Fax: (206) 695-6201

Analysis

Comments

Sample ID: GR-19-SB-T2

EFGS Lab ID: 9B00505-03

Matrix: Water

Sampled: 14-Feb-19 03:45 (GMT-08:00) Pacific Time (US &

Due: 18-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

23 Client Specific Bottle

Sample ID: GR-19-SB-T3

EFGS Lab ID: 9B00505-05

Matrix: Water

Sampled: 14-Feb-19 05:00 (GMT-08:00) Pacific Time (US &

Due: 18-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

23 Client Specific Bottle

Sample ID: GR-19-SB-T4

EFGS Lab ID: 9B00505-07

Matrix: Water

Sampled: 14-Feb-19 08:00 (GMT-08:00) Pacific Time (US &

Due: 18-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

23 Client Specific Bottle

Released By

Date

Received By

Date

Released By

Date

Received By

Date

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.

9B00505

19B0184

Analysis	Comments

Sample ID: GR-19-SB-T5

EFGS Lab ID: 9B00505-09

Matrix: Water

Sampled: 14-Feb-19 12:00 (GMT-08:00) Pacific Time (US &

Due: 18-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

23_Client Specific Bottle

Sample ID: GR-19-SB-T6

EFGS Lab ID: 9B00505-11

Matrix: Water

Sampled: 14-Feb-19 14:00 (GMT-08:00) Pacific Time (US &

Due: 18-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

23_Client Specific Bottle

Released By

Date

Received By

Date

Released By

Date

Received By

Date



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 09:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GR-19-SB-T2	19B0184-01	Water	14-Feb-2019 03:45	18-Feb-2019 10:12
GR-19-SB-T3	19B0184-02	Water	14-Feb-2019 05:00	18-Feb-2019 10:12
GR-19-SB-T4	19B0184-03	Water	14-Feb-2019 08:00	18-Feb-2019 10:12
GR-19-SB-T5	19B0184-04	Water	14-Feb-2019 12:00	18-Feb-2019 10:12
GR-19-SB-T6	19B0184-05	Water	14-Feb-2019 14:00	18-Feb-2019 10:12



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 09:00

Work Order Case Narrative

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The LCS percent recoveries were within control limits.



Cooler Receipt Form

ARI Client: Eurofine
COC No(s): _____ (NA)
Assigned ARI Job No: 19B0184

Project Name: 9B00505
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
Tracking No: 1Z86W0504449680691 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO
Were custody papers included with the cooler? YES NO
Were custody papers properly filled out (ink, signed, etc.) YES NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1012 0.3
If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 1207561
Cooler Accepted by: SE Date: 2-18-19 Time: 1012

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? NO YES
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____
Was sufficient ice used (if appropriate)? YES NA NO
Were all bottles sealed in individual plastic bags? YES NO
Did all bottles arrive in good condition (unbroken)? YES NO
Were all bottle labels complete and legible? YES NO
Did the number of containers listed on COC match with the number of containers received? YES NO
Did all bottle labels and tags agree with custody papers? YES NO
Were all bottles used correct for the requested analyses? YES NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES NO
Were all VOC vials free of air bubbles? NA YES NO
Was sufficient amount of sample sent in each bottle? YES NO
Date VOC Trip Blank was made at ARI: NA
Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JBW Date: 02/18/19 Time: 1243 Labels checked by: SE

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 09:00

GR-19-SB-T2
19B0184-01 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/14/2019 03:45

Instrument: BAL2 Analyst: KLE

Analyzed: 02/19/2019 04:28

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0184-01

Preparation Batch: BHB0383

Sample Size: 150 mL

Prepared: 19-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	7	7	215	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 09:00

GR-19-SB-T3
19B0184-02 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/14/2019 05:00

Instrument: BAL2 Analyst: KLE

Analyzed: 02/19/2019 04:28

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0184-02

Preparation Batch: BHB0383

Sample Size: 100 mL

Prepared: 19-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	10	10	339	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 09:00

GR-19-SB-T4
19B0184-03 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/14/2019 08:00

Instrument: BAL2 Analyst: KLE

Analyzed: 02/19/2019 04:28

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0184-03

Preparation Batch: BHB0383

Sample Size: 50 mL

Prepared: 19-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	20	20	450	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 09:00

GR-19-SB-T5
19B0184-04 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/14/2019 12:00

Instrument: BAL2 Analyst: KLE

Analyzed: 02/19/2019 04:28

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0184-04

Preparation Batch: BHB0383

Sample Size: 50 mL

Prepared: 19-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	20	20	406	mg/L	



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11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 09:00

GR-19-SB-T6
19B0184-05 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/14/2019 14:00

Instrument: BAL2 Analyst: KLE

Analyzed: 02/19/2019 04:28

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0184-05

Preparation Batch: BHB0383

Sample Size: 50 mL

Prepared: 19-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	20	20	392	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 09:00

Wet Chemistry - Quality Control

Batch BHB0383 - No Prep Wet Chem

Instrument: BAL2 Analyst: KLE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BHB0383-BLK1)										
Prepared: 19-Feb-2019 Analyzed: 19-Feb-2019 04:28										
Suspended Solids	ND	1	1	mg/L						U
LCS (BHB0383-BS1)										
Prepared: 19-Feb-2019 Analyzed: 19-Feb-2019 04:28										
Suspended Solids	50	1	1	mg/L	50.00		99.2 90-110			



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 09:00

Certified Analyses included in this Report

Analyte	Certifications		
SM 2540 D-97 in Water			
Suspended Solids		DoD-ELAP,WADOE,NELAP	
Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	02/07/2019
CALAP	California Department of Public Health CAELAP	2748	06/30/2019
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	01/01/2021
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-011	05/12/2019
WADOE	WA Dept of Ecology	C558	06/30/2019
WA-DW	Ecology - Drinking Water	C558	06/30/2019



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
22-Feb-2019 09:00

Notes and Definitions

U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.



Analytical Resources, Incorporated
Analytical Chemists and Consultants

11 March 2019

Amy Goodall
Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell, WA 98011

RE: 9B00505

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
19B0268

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.

9B00505

19B0268

Analysis	Comments

Sample ID: ~~GR-19-SB-T5~~

EFGS Lab ID: 9B00505-09

Matrix: Water

Sampled: 14-Feb-19 12:00 (GMT-08:00) Pacific Time (US &

Due: 18-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

23_Client Specific Bottle

Sample ID: GR-19-SB-T6

EFGS Lab ID: 9B00505-11

Matrix: Water

Sampled: 14-Feb-19 14:00 (GMT-08:00) Pacific Time (US &

Due: 18-Mar-19 19:00

BW 2/22/19

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

23_Client Specific Bottle

Sample ID: GR-19-SB-T7

EFGS Lab ID: 9B00505-17

Matrix: Water

Sampled: 15-Feb-19 14:45 (GMT-08:00) Pacific Time (US &

Due: 18-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

23_Client Specific Bottle

Sample ID: GR-19-SB-T8

EFGS Lab ID: 9B00505-19

Matrix: Water

Sampled: 18-Feb-19 09:00 (GMT-08:00) Pacific Time (US &

Due: 18-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

23_Client Specific Bottle

Released By

Date

Received By

Date

Released By

Date

Received By

Date



2/22/19

2/22/19



02/23/19 1136

SUBCONTRACT ORDER
Eurofins Frontier Global Sciences, Inc.

9B00505

19B0268

Analysis	Comments

Sample ID: GR-19-SB-T9

EFGS Lab ID: 9B00505-21

Matrix: Water

Sampled: 21-Feb-19 07:45 (GMT-08:00) Pacific Time (US &

Due: 18-Mar-19 19:00

Misc. Subcontract 2

TSS Analysis

Containers Supplied:

23_Client Specific Bottle

Released By

Date

Received By

Date

Released By

Date

Received By

Date



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
11-Mar-2019 13:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GR-19-SB-T7	19B0268-01	Water	15-Feb-2019 14:45	23-Feb-2019 11:36
GR-19-SB-T8	19B0268-02	Water	18-Feb-2019 09:00	23-Feb-2019 11:36
GR-19-SB-T9	19B0268-03	Water	21-Feb-2019 07:45	23-Feb-2019 11:36



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
11-Mar-2019 13:45

Work Order Case Narrative

Sample receipt

Samples as listed on the preceding page were received February 23, 2019 under ARI work order 19B0268. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Total Suspended Solids-SM2540D-97

Sample GR-19-SB-T7 was received outside of the 7 day recommended holding time, and has been flagged with an "H" qualifier.

The method blank was clean at the reporting limits.

The LCS percent recoveries were within control limits.



Cooler Receipt Form

ARI Client: Eurofins

Project Name: 9B00505

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 19B0268

Tracking No: 1Z86W050444980404 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1136 4.4°C

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: D005206

Cooler Accepted by: JSW

Date: 02/23/19

Time: 1136

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

Were all bottles sealed in individual plastic bags? YES NO

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI... NA

Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JSW Date: 02/23/19 Time: 1145 Labels checked by: JSW

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
11-Mar-2019 13:45

GR-19-SB-T7
19B0268-01 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/15/2019 14:45

Instrument: BAL2 Analyst: KLE

Analyzed: 02/25/2019 06:32

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0268-01

Preparation Batch: BHB0529

Sample Size: 100 mL

Prepared: 25-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	10	10	175	mg/L	H



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
11-Mar-2019 13:45

GR-19-SB-T8
19B0268-02 (Water)

Wet Chemistry

Method: SM 2540 D-97
Instrument: BAL2 Analyst: KLE

Sampled: 02/18/2019 09:00

Analyzed: 02/25/2019 06:32

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BHB0529 Sample Size: 300 mL
Prepared: 25-Feb-2019 Final Volume: 1000 mL

Extract ID: 19B0268-02

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	3	3	58	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
11-Mar-2019 13:45

GR-19-SB-T9
19B0268-03 (Water)

Wet Chemistry

Method: SM 2540 D-97

Sampled: 02/21/2019 07:45

Instrument: BAL2 Analyst: KLE

Analyzed: 02/25/2019 06:32

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 19B0268-03

Preparation Batch: BHB0529

Sample Size: 440 mL

Prepared: 25-Feb-2019

Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Suspended Solids		1	2	2	44	mg/L	



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
11-Mar-2019 13:45

Wet Chemistry - Quality Control

Batch BHB0529 - No Prep Wet Chem

Instrument: BAL2 Analyst: KLE

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BHB0529-BLK1)										
Prepared: 25-Feb-2019 Analyzed: 25-Feb-2019 06:32										
Suspended Solids	ND	1	1	mg/L						U
LCS (BHB0529-BS1)										
Prepared: 25-Feb-2019 Analyzed: 25-Feb-2019 06:32										
Suspended Solids	50	1	1	mg/L	50.00		99.0 90-110			



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
11-Mar-2019 13:45

Certified Analyses included in this Report

Analyte	Certifications		
SM 2540 D-97 in Water			
Suspended Solids		DoD-ELAP,WADOE,NELAP	
Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	01/31/2021
CALAP	California Department of Public Health CAELAP	2748	06/30/2019
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program	66169	01/01/2021
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-011	05/12/2019
WADOE	WA Dept of Ecology	C558	06/30/2019
WA-DW	Ecology - Drinking Water	C558	06/30/2019



Eurofins Frontier Global Sciences
11720 Northcreek Parkway North, Suite 400
Bothell WA, 98011

Project: 9B00505
Project Number: [none]
Project Manager: Amy Goodall

Reported:
11-Mar-2019 13:45

Notes and Definitions

H	Hold time violation - Hold time was exceeded.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.

ANALYTICAL REPORT

PREPARED FOR

Attn: Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, California 94549

Generated 1/20/2023 2:42:03 PM

JOB DESCRIPTION

Guadalupe River

JOB NUMBER

580-121954-1

Eurofins Seattle

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Authorized for release by
Lilly-Anna LaCount, Project Manager
Lilly-Anna.Lacount@et.eurofinsus.com
(253)922-2310

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Case Narrative

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Job ID: 580-121954-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-121954-1

Comments

No additional comments.

Receipt

The samples were received on 1/10/2023 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8° C.

Metals

Method 1630: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 580-415446 and analytical batch 580-415577 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 1630: The method blank for preparation batch 580-415446 and analytical batch 580-415577 contained Methyl Mercury above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank or were below the reporting limit.

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

General Chemistry

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

Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-WB

Lab Sample ID: 580-121954-1

Date Collected: 01/04/23 13:15

Matrix: Water

Date Received: 01/09/23 10:42

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	ND		0.050	0.022	ng/L		01/13/23 11:36	01/13/23 17:11	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.080	J	0.50	0.079	ng/L			01/11/23 20:11	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-EQ

Lab Sample ID: 580-121954-2

Date Collected: 01/04/23 13:20

Matrix: Water

Date Received: 01/09/23 10:42

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	ND		0.050	0.022	ng/L		01/13/23 11:36	01/13/23 17:42	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.18	J	0.50	0.079	ng/L			01/11/23 20:15	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-T1

Lab Sample ID: 580-121954-3

Date Collected: 01/04/23 13:45

Matrix: Water

Date Received: 01/09/23 10:42

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.83		0.050	0.022	ng/L		01/13/23 11:36	01/13/23 18:33	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	210		5.0	0.79	ng/L			01/12/23 17:15	10

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	14		0.50	0.079	ng/L			01/12/23 17:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	28		4.0	4.0	mg/L			01/11/23 08:35	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-T2

Lab Sample ID: 580-121954-4

Date Collected: 01/04/23 16:40

Matrix: Water

Date Received: 01/09/23 10:42

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.76		0.050	0.022	ng/L		01/13/23 11:36	01/13/23 18:43	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	220	B	5.0	0.79	ng/L			01/11/23 17:29	10

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	14	B	0.50	0.079	ng/L			01/11/23 22:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	34		4.0	4.0	mg/L			01/11/23 08:35	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-T3

Lab Sample ID: 580-121954-5

Date Collected: 01/04/23 21:30

Matrix: Water

Date Received: 01/09/23 10:42

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	1.9		0.050	0.022	ng/L		01/13/23 11:36	01/13/23 18:53	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1600	B	25	4.0	ng/L			01/11/23 17:41	50

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	8.2	B	0.50	0.079	ng/L			01/11/23 22:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	260		10	10	mg/L			01/11/23 08:35	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-T4

Lab Sample ID: 580-121954-6

Date Collected: 01/05/23 00:10

Matrix: Water

Date Received: 01/09/23 10:42

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	1.2		0.050	0.022	ng/L		01/13/23 11:36	01/13/23 19:03	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	580	B	25	4.0	ng/L			01/11/23 21:56	50

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	9.3	B	0.50	0.079	ng/L			01/11/23 22:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	160		5.0	5.0	mg/L			01/11/23 08:35	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-T5

Lab Sample ID: 580-121954-7

Date Collected: 01/05/23 05:00

Matrix: Water

Date Received: 01/09/23 10:42

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	2.3	B F1 F2	0.050	0.022	ng/L		01/16/23 11:40	01/16/23 17:19	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	840	B	25	4.0	ng/L			01/11/23 22:00	50

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	11	B	0.50	0.079	ng/L			01/11/23 22:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	270		9.5	9.5	mg/L			01/11/23 08:35	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-T6

Lab Sample ID: 580-121954-8

Date Collected: 01/05/23 18:30

Matrix: Water

Date Received: 01/09/23 10:42

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	1.6	B	0.050	0.022	ng/L		01/16/23 11:40	01/16/23 17:49	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	440	B	25	4.0	ng/L			01/11/23 22:04	50

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	20	B	0.50	0.079	ng/L			01/11/23 22:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	100		4.8	4.8	mg/L			01/11/23 08:35	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-T7

Lab Sample ID: 580-121954-9

Date Collected: 01/06/23 09:45

Matrix: Water

Date Received: 01/09/23 10:42

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	1.0	B	0.050	0.022	ng/L		01/16/23 11:40	01/16/23 18:40	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	240	B	5.0	0.79	ng/L			01/11/23 22:08	10

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	20	B	0.50	0.079	ng/L			01/11/23 22:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	28		4.0	4.0	mg/L			01/11/23 08:35	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-T8

Lab Sample ID: 580-121954-10

Date Collected: 01/06/23 20:00

Matrix: Water

Date Received: 01/09/23 10:42

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.99	B	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 17:50	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	220	B	5.0	0.79	ng/L			01/11/23 22:12	10

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	16	B	0.50	0.079	ng/L			01/11/23 22:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	27		5.0	5.0	mg/L			01/11/23 08:35	1

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Method: 1630 - Methyl Mercury

Lab Sample ID: MB 580-415304/1-A
Matrix: Water
Analysis Batch: 415470

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	ND		0.050	0.022	ng/L		01/13/23 11:36	01/13/23 16:20	1

Lab Sample ID: MB 580-415304/2-A
Matrix: Water
Analysis Batch: 415470

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	ND		0.050	0.022	ng/L		01/13/23 11:36	01/13/23 16:31	1

Lab Sample ID: MB 580-415304/3-A
Matrix: Water
Analysis Batch: 415470

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	ND		0.050	0.022	ng/L		01/13/23 11:36	01/13/23 16:41	1

Lab Sample ID: LCS 580-415304/4-A
Matrix: Water
Analysis Batch: 415470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 415304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl Mercury	1.00	0.936		ng/L		94	65 - 135

Lab Sample ID: LCSD 580-415304/5-A
Matrix: Water
Analysis Batch: 415470

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 415304

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl Mercury	1.00	1.06		ng/L		106	65 - 135	12	35

Lab Sample ID: 580-121954-1 MS
Matrix: Water
Analysis Batch: 415470

Client Sample ID: GR-23-C-WB
Prep Type: Total/NA
Prep Batch: 415304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl Mercury	ND		1.00	0.971		ng/L		97	65 - 135

Lab Sample ID: 580-121954-1 MSD
Matrix: Water
Analysis Batch: 415470

Client Sample ID: GR-23-C-WB
Prep Type: Total/NA
Prep Batch: 415304

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl Mercury	ND		1.00	1.00		ng/L		100	65 - 135	3	35

Lab Sample ID: 580-121954-2 MS
Matrix: Water
Analysis Batch: 415470

Client Sample ID: GR-23-C-EQ
Prep Type: Total/NA
Prep Batch: 415304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl Mercury	ND		1.00	0.912		ng/L		91	65 - 135

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Method: 1630 - Methyl Mercury

Lab Sample ID: 580-121954-2 MSD

Matrix: Water

Analysis Batch: 415470

Client Sample ID: GR-23-C-EQ

Prep Type: Total/NA

Prep Batch: 415304

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl Mercury	ND		1.00	0.920		ng/L		92	65 - 135	1	35

Lab Sample ID: MB 580-415446/1-A

Matrix: Water

Analysis Batch: 415577

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 415446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.0779		0.050	0.022	ng/L		01/16/23 11:40	01/16/23 16:28	1

Lab Sample ID: MB 580-415446/2-A

Matrix: Water

Analysis Batch: 415577

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 415446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.0240	J	0.050	0.022	ng/L		01/16/23 11:40	01/16/23 16:38	1

Lab Sample ID: MB 580-415446/3-A

Matrix: Water

Analysis Batch: 415577

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 415446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.0301	J	0.050	0.022	ng/L		01/16/23 11:40	01/16/23 16:48	1

Lab Sample ID: LCS 580-415446/4-A

Matrix: Water

Analysis Batch: 415577

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 415446

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl Mercury	1.00	1.28		ng/L		128	65 - 135

Lab Sample ID: LCSD 580-415446/5-A

Matrix: Water

Analysis Batch: 415577

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 415446

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl Mercury	1.00	1.25		ng/L		125	65 - 135	3	35

Lab Sample ID: 580-121954-7 MS

Matrix: Water

Analysis Batch: 415577

Client Sample ID: GR-23-C-T5

Prep Type: Total/NA

Prep Batch: 415446

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl Mercury	2.3	B F1 F2	1.00	1.86	F1	ng/L		-43	65 - 135

Lab Sample ID: 580-121954-7 MSD

Matrix: Water

Analysis Batch: 415577

Client Sample ID: GR-23-C-T5

Prep Type: Total/NA

Prep Batch: 415446

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl Mercury	2.3	B F1 F2	1.00	2.79	F1 F2	ng/L		50	65 - 135	40	35

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Method: 1630 - Methyl Mercury

Lab Sample ID: 580-121954-8 MS

Matrix: Water

Analysis Batch: 415577

Client Sample ID: GR-23-C-T6

Prep Type: Total/NA

Prep Batch: 415446

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl Mercury	1.6	B	1.00	2.68		ng/L		111	65 - 135

Lab Sample ID: 580-121954-8 MSD

Matrix: Water

Analysis Batch: 415577

Client Sample ID: GR-23-C-T6

Prep Type: Total/NA

Prep Batch: 415446

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl Mercury	1.6	B	1.00	2.55		ng/L		99	65 - 135	5	35

Lab Sample ID: MB 580-415691/1-A

Matrix: Water

Analysis Batch: 415864

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 415691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.0234	J	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 16:28	1

Lab Sample ID: MB 580-415691/2-A

Matrix: Water

Analysis Batch: 415864

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 415691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.0274	J	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 16:38	1

Lab Sample ID: MB 580-415691/3-A

Matrix: Water

Analysis Batch: 415864

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 415691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	ND		0.050	0.022	ng/L		01/18/23 11:23	01/18/23 16:49	1

Lab Sample ID: LCS 580-415691/4-A

Matrix: Water

Analysis Batch: 415864

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 415691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl Mercury	1.00	0.699		ng/L		70	65 - 135

Lab Sample ID: LCSD 580-415691/5-A

Matrix: Water

Analysis Batch: 415864

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 415691

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl Mercury	1.00	0.776		ng/L		78	65 - 135	10	35

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 580-415211/18
Matrix: Water
Analysis Batch: 415211

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/11/23 13:50	1

Lab Sample ID: MB 580-415211/19
Matrix: Water
Analysis Batch: 415211

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/11/23 13:55	1

Lab Sample ID: MB 580-415211/20
Matrix: Water
Analysis Batch: 415211

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/11/23 13:59	1

Lab Sample ID: MB 580-415211/67
Matrix: Water
Analysis Batch: 415211

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.173	J	0.50	0.079	ng/L			01/11/23 17:46	1

Lab Sample ID: MB 580-415211/68
Matrix: Water
Analysis Batch: 415211

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.150	J	0.50	0.079	ng/L			01/11/23 17:50	1

Lab Sample ID: MB 580-415211/69
Matrix: Water
Analysis Batch: 415211

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.122	J	0.50	0.079	ng/L			01/11/23 17:54	1

Lab Sample ID: LCS 580-415211/27
Matrix: Water
Analysis Batch: 415211

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.52		ng/L		90	77 - 123

Lab Sample ID: LCSD 580-415211/28
Matrix: Water
Analysis Batch: 415211

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.75		ng/L		95	77 - 123	5	24

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: 580-121954-4 MS

Matrix: Water

Analysis Batch: 415211

Client Sample ID: GR-23-C-T2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	220	B	300	503		ng/L		96	71 - 125

Lab Sample ID: 580-121954-4 MSD

Matrix: Water

Analysis Batch: 415211

Client Sample ID: GR-23-C-T2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	220	B	300	534		ng/L		106	71 - 125	6	24

Lab Sample ID: 580-121954-5 MS

Matrix: Water

Analysis Batch: 415211

Client Sample ID: GR-23-C-T3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1600	B	2000	3460		ng/L		93	71 - 125

Lab Sample ID: 580-121954-5 MSD

Matrix: Water

Analysis Batch: 415211

Client Sample ID: GR-23-C-T3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	1600	B	2000	3330		ng/L		87	71 - 125	4	24

Lab Sample ID: MB 580-415327/18

Matrix: Water

Analysis Batch: 415327

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/12/23 13:27	1

Lab Sample ID: MB 580-415327/19

Matrix: Water

Analysis Batch: 415327

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/12/23 13:31	1

Lab Sample ID: MB 580-415327/20

Matrix: Water

Analysis Batch: 415327

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/12/23 13:35	1

Lab Sample ID: LCS 580-415327/25

Matrix: Water

Analysis Batch: 415327

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.84		ng/L		97	77 - 123

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: LCSD 580-415327/26

Matrix: Water

Analysis Batch: 415327

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	5.03		ng/L		101	77 - 123	4	24

Lab Sample ID: MB 580-414923/1-A

Matrix: Water

Analysis Batch: 415211

Client Sample ID: Method Blank

Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/11/23 14:15	1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 580-415064/1

Matrix: Water

Analysis Batch: 415064

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		2.0	2.0	mg/L			01/11/23 08:35	1

Lab Sample ID: LCS 580-415064/2

Matrix: Water

Analysis Batch: 415064

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	500	482		mg/L		96	80 - 120

Lab Sample ID: 580-121954-5 DU

Matrix: Water

Analysis Batch: 415064

Client Sample ID: GR-23-C-T3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	260		262		mg/L		3	20

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-WB

Lab Sample ID: 580-121954-1

Date Collected: 01/04/23 13:15

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415304	AJD	EET SEA	01/13/23 11:36
Total/NA	Analysis	1630		1	415470	V1R	EET SEA	01/13/23 17:11
Total/NA	Analysis	1631E		1	415211	COW	EET SEA	01/11/23 20:11

Client Sample ID: GR-23-C-EQ

Lab Sample ID: 580-121954-2

Date Collected: 01/04/23 13:20

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415304	AJD	EET SEA	01/13/23 11:36
Total/NA	Analysis	1630		1	415470	V1R	EET SEA	01/13/23 17:42
Total/NA	Analysis	1631E		1	415211	COW	EET SEA	01/11/23 20:15

Client Sample ID: GR-23-C-T1

Lab Sample ID: 580-121954-3

Date Collected: 01/04/23 13:45

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415304	AJD	EET SEA	01/13/23 11:36
Total/NA	Analysis	1630		1	415470	V1R	EET SEA	01/13/23 18:33
Dissolved	Filtration	Filtration			414923	LEL	EET SEA	01/10/23 11:50
Dissolved	Analysis	1631E		1	415327	D1C	EET SEA	01/12/23 17:19
Total/NA	Analysis	1631E		10	415327	D1C	EET SEA	01/12/23 17:15
Total/NA	Analysis	SM 2540D		1	415064	AUA	EET SEA	01/11/23 08:35

Client Sample ID: GR-23-C-T2

Lab Sample ID: 580-121954-4

Date Collected: 01/04/23 16:40

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415304	AJD	EET SEA	01/13/23 11:36
Total/NA	Analysis	1630		1	415470	V1R	EET SEA	01/13/23 18:43
Dissolved	Filtration	Filtration			414923	LEL	EET SEA	01/10/23 11:50
Dissolved	Analysis	1631E		1	415211	COW	EET SEA	01/11/23 22:17
Total/NA	Analysis	1631E		10	415211	COW	EET SEA	01/11/23 17:29
Total/NA	Analysis	SM 2540D		1	415064	AUA	EET SEA	01/11/23 08:35

Client Sample ID: GR-23-C-T3

Lab Sample ID: 580-121954-5

Date Collected: 01/04/23 21:30

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415304	AJD	EET SEA	01/13/23 11:36
Total/NA	Analysis	1630		1	415470	V1R	EET SEA	01/13/23 18:53

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-T3

Lab Sample ID: 580-121954-5

Date Collected: 01/04/23 21:30

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Filtration	Filtration			414923	LEL	EET SEA	01/10/23 11:50
Dissolved	Analysis	1631E		1	415211	COW	EET SEA	01/11/23 22:21
Total/NA	Analysis	1631E		50	415211	COW	EET SEA	01/11/23 17:41
Total/NA	Analysis	SM 2540D		1	415064	AUA	EET SEA	01/11/23 08:35

Client Sample ID: GR-23-C-T4

Lab Sample ID: 580-121954-6

Date Collected: 01/05/23 00:10

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415304	AJD	EET SEA	01/13/23 11:36
Total/NA	Analysis	1630		1	415470	V1R	EET SEA	01/13/23 19:03
Dissolved	Filtration	Filtration			414923	LEL	EET SEA	01/10/23 11:50
Dissolved	Analysis	1631E		1	415211	COW	EET SEA	01/11/23 22:25
Total/NA	Analysis	1631E		50	415211	COW	EET SEA	01/11/23 21:56
Total/NA	Analysis	SM 2540D		1	415064	AUA	EET SEA	01/11/23 08:35

Client Sample ID: GR-23-C-T5

Lab Sample ID: 580-121954-7

Date Collected: 01/05/23 05:00

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415446	AJD	EET SEA	01/16/23 11:40
Total/NA	Analysis	1630		1	415577	V1R	EET SEA	01/16/23 17:19
Dissolved	Filtration	Filtration			414923	LEL	EET SEA	01/10/23 11:50
Dissolved	Analysis	1631E		1	415211	COW	EET SEA	01/11/23 22:29
Total/NA	Analysis	1631E		50	415211	COW	EET SEA	01/11/23 22:00
Total/NA	Analysis	SM 2540D		1	415064	AUA	EET SEA	01/11/23 08:35

Client Sample ID: GR-23-C-T6

Lab Sample ID: 580-121954-8

Date Collected: 01/05/23 18:30

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415446	AJD	EET SEA	01/16/23 11:40
Total/NA	Analysis	1630		1	415577	V1R	EET SEA	01/16/23 17:49
Dissolved	Filtration	Filtration			414923	LEL	EET SEA	01/10/23 11:50
Dissolved	Analysis	1631E		1	415211	COW	EET SEA	01/11/23 22:33
Total/NA	Analysis	1631E		50	415211	COW	EET SEA	01/11/23 22:04
Total/NA	Analysis	SM 2540D		1	415064	AUA	EET SEA	01/11/23 08:35

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Client Sample ID: GR-23-C-T7

Lab Sample ID: 580-121954-9

Date Collected: 01/06/23 09:45

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415446	AJD	EET SEA	01/16/23 11:40
Total/NA	Analysis	1630		1	415577	V1R	EET SEA	01/16/23 18:40
Dissolved	Filtration	Filtration			414923	LEL	EET SEA	01/10/23 11:50
Dissolved	Analysis	1631E		1	415211	COW	EET SEA	01/11/23 22:46
Total/NA	Analysis	1631E		10	415211	COW	EET SEA	01/11/23 22:08
Total/NA	Analysis	SM 2540D		1	415064	AUA	EET SEA	01/11/23 08:35

Client Sample ID: GR-23-C-T8

Lab Sample ID: 580-121954-10

Date Collected: 01/06/23 20:00

Matrix: Water

Date Received: 01/09/23 10:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415691	AJD	EET SEA	01/18/23 11:23
Total/NA	Analysis	1630		1	415864	V1R	EET SEA	01/18/23 17:50
Dissolved	Filtration	Filtration			414923	LEL	EET SEA	01/10/23 11:50
Dissolved	Analysis	1631E		1	415211	COW	EET SEA	01/11/23 22:50
Total/NA	Analysis	1631E		10	415211	COW	EET SEA	01/11/23 22:12
Total/NA	Analysis	SM 2540D		1	415064	AUA	EET SEA	01/11/23 08:35

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Laboratory: Eurofins Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2540D		Water	Total Suspended Solids
ANAB	Dept. of Defense ELAP	L2236	01-19-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2540D		Water	Total Suspended Solids
ANAB	Dept. of Energy	L2236	01-19-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2540D		Water	Total Suspended Solids
ANAB	ISO/IEC 17025	L2236	01-19-25
Arkansas DEQ	State	8801526	05-23-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids
California	State	2954	07-07-22 *
Florida	NELAP	E87575	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids
Louisiana (All)	NELAP	03073	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2540D		Water	Total Suspended Solids
Maine	State	WA01273	05-02-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids
Montana (UST)	State	NA	04-14-27

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
1631E		Water	Mercury

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Seattle

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Laboratory: Eurofins Seattle (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
SM 2540D		Water	Total Suspended Solids
New Jersey	NELAP	WA014	06-30-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids
New York	NELAP	11662	04-01-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids
Oregon	NELAP	4167	07-08-23
US Fish & Wildlife	US Federal Programs	A20571	06-30-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
1631E		Water	Mercury
SM 2540D		Water	Total Suspended Solids
USDA	US Federal Programs	525-23-4-22573	01-04-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
1631E		Water	Mercury
SM 2540D		Water	Total Suspended Solids
Washington	State	C788	07-13-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
1631E		Water	Mercury
SM 2540D		Water	Total Suspended Solids
Wisconsin	State	399133460	08-31-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-121954-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-121954-1	GR-23-C-WB	Water	01/04/23 13:15	01/09/23 10:42
580-121954-2	GR-23-C-EQ	Water	01/04/23 13:20	01/09/23 10:42
580-121954-3	GR-23-C-T1	Water	01/04/23 13:45	01/09/23 10:42
580-121954-4	GR-23-C-T2	Water	01/04/23 16:40	01/09/23 10:42
580-121954-5	GR-23-C-T3	Water	01/04/23 21:30	01/09/23 10:42
580-121954-6	GR-23-C-T4	Water	01/05/23 00:10	01/09/23 10:42
580-121954-7	GR-23-C-T5	Water	01/05/23 05:00	01/09/23 10:42
580-121954-8	GR-23-C-T6	Water	01/05/23 18:30	01/09/23 10:42
580-121954-9	GR-23-C-T7	Water	01/06/23 09:45	01/09/23 10:42
580-121954-10	GR-23-C-T8	Water	01/06/23 20:00	01/09/23 10:42

CHAIN OF CUSTODY

Ship To:
Patrick Garcia-Strickland
eurofins Frontier Global Sciences
4430 North Creek Parkway North, Suite 400
Bothell, WA
5755 8th Street East
Tacoma, WA 98424

Report to:
Dr. Ted Donn
Tetra Tech
3746 Mt. Diablo Blvd
Lafayette, CA
ted.donn@tetratech.com

General Notes:

Perform QA analyses on these samples.
Please report all results to the MDL, J-flag results between MDL and RL
Please report results in pdf format with Excel EDD deliverable

Project	SampleID	Medium	Date	Time	Preservation	Hg-total (EPA 1631E)	Hg-dissolved (EPA-1631E) Laboratory filtration	MeHg (EPA 1630/FGS-70)	Total Suspended Solids (EPA 160.2 or SM2540d)	Comments
Storm C	GR-19-C-WB	Water	4-Jan-2023	13:15	HCl	X				
Storm C	GR-19-C-WB	Water	4-Jan-2023	13:35	H ₂ SO ₄			X		
Storm C	GR-19-C-EQ	Water	4-Jan-2023	13:20	HCl	X				
Storm C	GR-19-C-EQ	Water	4-Jan-2023	13:20	H ₂ SO ₄			X		
Storm C	GR-19-C-T1	Water	4-Jan-2023	13:45	HCl	X				
Storm C	GR-19-C-T1	Water	4-Jan-2023	13:45	COLD		X			
Storm C	GR-19-C-T1	Water	4-Jan-2023	13:45	H ₂ SO ₄			X		
Storm C	GR-19-C-T1	Water	4-Jan-2023	13:45	COLD				X	
Storm C	GR-19-C-T2	Water	4-Jan-2023	16:40	HCl	X				
Storm C	GR-19-C-T2	Water	4-Jan-2023	16:40	COLD		X			
Storm C	GR-19-C-T2	Water	4-Jan-2023	16:40	H ₂ SO ₄			X		
Storm C	GR-19-C-T2	Water	4-Jan-2023	16:40	COLD				X	
Storm C	GR-19-C-T3	Water	4-Jan-2023	21:30	HCl	X				
Storm C	GR-19-C-T3	Water	4-Jan-2023	21:30	COLD		X			
Storm C	GR-19-C-T3	Water	4-Jan-2023	21:30	H ₂ SO ₄			X		
Storm C	GR-19-C-T3	Water	4-Jan-2023	21:30	COLD				X	
Storm C	GR-19-C-T4	Water	5-Jan-2023	0:10	HCl	X				
Storm C	GR-19-C-T4	Water	5-Jan-2023	0:10	COLD		X			
Storm C	GR-19-C-T4	Water	5-Jan-2023	0:10	H ₂ SO ₄			X		
Storm C	GR-19-C-T4	Water	5-Jan-2023	0:10	COLD				X	
Storm C	GR-19-C-T5	Water	5-Jan-2023	5:00	HCl	X				
Storm C	GR-19-C-T5	Water	5-Jan-2023	5:00	COLD		X			
Storm C	GR-19-C-T5	Water	5-Jan-2023	5:00	H ₂ SO ₄			X		
Storm C	GR-19-C-T5	Water	5-Jan-2023	5:00	COLD				X	
Storm C	GR-19-C-T6	Water	5-Jan-2023	18:30	HCl	X				
Storm C	GR-19-C-T6	Water	5-Jan-2023	18:30	COLD		X			
Storm C	GR-19-C-T6	Water	5-Jan-2023	18:30	H ₂ SO ₄			X		
Storm C	GR-19-C-T6	Water	5-Jan-2023	18:30	COLD				X	

Relinquished by:

[Signature]
1/8/2023

Relinquished by:



580-121954 Chain of Custody

Received by: WFL, EFLS

Received by:

1-10-23 0925

8468 6995 3717

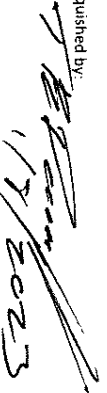
0306 WLC
0306 WLC
0306 WLC

Ship To:
Patrick Garcia-Strickland
eurofins-Frontier Global Sciences
11720 North Creek Parkway North, Suite 400
Bothell, WA

CHAIN OF CUSTODY

Report to
Dr. Ted Donn
Tetra Tech
3746 Mt. Diablo Blvd.
Lafayette, CA
ted.donn@tetratech.com
1/20/2023

Project	SampleID	Medium	Date	Time	Preservation	Hg-total (EPA 1631E)	Hg-dissolved (EPA-1631E) Laboratory filtration	MeHg (EPA 1630/FGS-70)	Total Suspended Solids (EPA 160.2 or SM2540d)	Comments
Storm C	GR-19-C-T7	Water	6-Jan-2023	9:45	HCl	X				
Storm C	GR-19-C-T7	Water	6-Jan-2023	9:45	COLD		X			
Storm C	GR-19-C-T7	Water	6-Jan-2023	9:45	H ₂ SO ₄			X		
Storm C	GR-19-C-T7	Water	6-Jan-2023	9:45	COLD				X	

Relinquished by:

1/17/2023

Received by:

Relinquished by:

Received by:

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 580-121954-1

Login Number: 121954

List Source: Eurofins Seattle

List Number: 1

Creator: LaCount, Lilly-Anna E

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

PREPARED FOR

Attn: Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, California 94549

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JOB DESCRIPTION

Guadalupe River

JOB NUMBER

580-122205-1

Eurofins Seattle

Job Notes

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The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Authorized for release by
Lilly-Anna LaCount, Project Manager
Lilly-Anna.Lacount@et.eurofinsus.com
(253)922-2310

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Case Narrative

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Job ID: 580-122205-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-122205-1

Receipt

The samples were received on 1/13/2023 8:27 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C

Metals

Method 1630_ME: The method blank for preparation batch 580-415446 and analytical batch 580-415577 contained Methyl Mercury above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank or were below the reporting limit.

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

General Chemistry

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

Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-WB
Date Collected: 01/09/23 05:25
Date Received: 01/13/23 08:27

Lab Sample ID: 580-122205-1
Matrix: Water

Method: EPA 1630 - Methyl Mercury										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Methyl Mercury	ND		0.050	0.022	ng/L		01/16/23 11:40	01/16/23 19:01	1	

Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.093	J	0.50	0.079	ng/L			01/16/23 19:13	1	

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-EQ
Date Collected: 01/09/23 05:30
Date Received: 01/13/23 08:27

Lab Sample ID: 580-122205-2
Matrix: Water

Method: EPA 1630 - Methyl Mercury										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Methyl Mercury	ND		0.050	0.022	ng/L		01/16/23 11:40	01/16/23 19:11	1	

Method: EPA 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Mercury	0.14	J	0.50	0.079	ng/L			01/17/23 16:06	1	

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-T1

Lab Sample ID: 580-122205-3

Date Collected: 01/09/23 06:00

Matrix: Water

Date Received: 01/13/23 08:27

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	1.1	B	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 18:00	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	550		9.9	1.6	ng/L			01/17/23 14:14	20

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	8.2		0.50	0.079	ng/L			01/17/23 16:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	150		6.7	6.7	mg/L			01/13/23 14:03	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-T2

Lab Sample ID: 580-122205-4

Date Collected: 01/09/23 07:30

Matrix: Water

Date Received: 01/13/23 08:27

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	1.6	B	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 18:31	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	910		9.9	1.6	ng/L			01/17/23 15:37	20

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	8.0		0.50	0.079	ng/L			01/17/23 16:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	270		10	10	mg/L			01/13/23 14:03	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-T3

Lab Sample ID: 580-122205-5

Date Collected: 01/09/23 11:00

Matrix: Water

Date Received: 01/13/23 08:27

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	2.1	B	0.050	0.022	ng/L		01/16/23 11:40	01/16/23 19:42	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2200		25	4.0	ng/L			01/17/23 14:18	50

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	14		0.50	0.079	ng/L			01/17/23 16:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	480		10	10	mg/L			01/13/23 14:03	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-T4

Lab Sample ID: 580-122205-6

Date Collected: 01/09/23 11:15

Matrix: Water

Date Received: 01/13/23 08:27

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	2.4	B	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 18:41	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2000		25	4.0	ng/L			01/17/23 15:54	50

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	15		0.50	0.079	ng/L			01/17/23 16:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	430		20	20	mg/L			01/13/23 14:03	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-T5

Lab Sample ID: 580-122205-7

Date Collected: 01/09/23 14:05

Matrix: Water

Date Received: 01/13/23 08:27

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.89	B	0.050	0.022	ng/L		01/16/23 11:40	01/16/23 20:02	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1800		25	4.0	ng/L			01/17/23 15:58	50

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	19		0.50	0.079	ng/L			01/17/23 16:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	320		19	19	mg/L			01/13/23 14:03	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-T6

Lab Sample ID: 580-122205-8

Date Collected: 01/10/23 09:45

Matrix: Water

Date Received: 01/13/23 08:27

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	1.4	B	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 18:51	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	990		9.9	1.6	ng/L			01/17/23 15:41	20

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	14		0.50	0.079	ng/L			01/17/23 16:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	190		6.7	6.7	mg/L			01/16/23 09:10	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-T7

Lab Sample ID: 580-122205-9

Date Collected: 01/11/23 09:30

Matrix: Water

Date Received: 01/13/23 08:27

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	1.1	B	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 19:01	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	370		2.5	0.40	ng/L			01/17/23 15:29	5

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	13		0.50	0.079	ng/L			01/17/23 16:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	59		10	10	mg/L			01/16/23 09:10	1

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-T8

Lab Sample ID: 580-122205-10

Date Collected: 01/12/23 09:40

Matrix: Water

Date Received: 01/13/23 08:27

Method: EPA 1630 - Methyl Mercury

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.69	B	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 19:11	1

Method: EPA 1631E - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	210		2.5	0.40	ng/L			01/17/23 15:33	5

Method: EPA 1631E - Mercury, Low Level (CVAFS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	9.8		0.50	0.079	ng/L			01/17/23 16:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (SM 2540D)	54		10	10	mg/L			01/16/23 09:10	1

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Method: 1630 - Methyl Mercury

Lab Sample ID: MB 580-415446/1-A
Matrix: Water
Analysis Batch: 415577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.0779		0.050	0.022	ng/L		01/16/23 11:40	01/16/23 16:28	1

Lab Sample ID: MB 580-415446/2-A
Matrix: Water
Analysis Batch: 415577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.0240	J	0.050	0.022	ng/L		01/16/23 11:40	01/16/23 16:38	1

Lab Sample ID: MB 580-415446/3-A
Matrix: Water
Analysis Batch: 415577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.0301	J	0.050	0.022	ng/L		01/16/23 11:40	01/16/23 16:48	1

Lab Sample ID: LCS 580-415446/4-A
Matrix: Water
Analysis Batch: 415577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 415446

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl Mercury	1.00	1.28		ng/L		128	65 - 135

Lab Sample ID: LCSD 580-415446/5-A
Matrix: Water
Analysis Batch: 415577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 415446

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl Mercury	1.00	1.25		ng/L		125	65 - 135	3	35

Lab Sample ID: MB 580-415691/1-A
Matrix: Water
Analysis Batch: 415864

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.0234	J	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 16:28	1

Lab Sample ID: MB 580-415691/2-A
Matrix: Water
Analysis Batch: 415864

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	0.0274	J	0.050	0.022	ng/L		01/18/23 11:23	01/18/23 16:38	1

Lab Sample ID: MB 580-415691/3-A
Matrix: Water
Analysis Batch: 415864

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 415691

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Mercury	ND		0.050	0.022	ng/L		01/18/23 11:23	01/18/23 16:49	1

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Method: 1630 - Methyl Mercury

Lab Sample ID: LCS 580-415691/4-A
Matrix: Water
Analysis Batch: 415864

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 415691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methyl Mercury	1.00	0.699		ng/L		70	65 - 135

Lab Sample ID: LCSD 580-415691/5-A
Matrix: Water
Analysis Batch: 415864

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 415691

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methyl Mercury	1.00	0.776		ng/L		78	65 - 135	10	35

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 580-415608/24
Matrix: Water
Analysis Batch: 415608

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/16/23 13:44	1

Lab Sample ID: MB 580-415608/25
Matrix: Water
Analysis Batch: 415608

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/16/23 13:48	1

Lab Sample ID: MB 580-415608/45
Matrix: Water
Analysis Batch: 415608

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/16/23 15:20	1

Lab Sample ID: LCS 580-415608/32
Matrix: Water
Analysis Batch: 415608

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	4.81		ng/L		96	77 - 123

Lab Sample ID: LCSD 580-415608/34
Matrix: Water
Analysis Batch: 415608

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	4.82		ng/L		96	77 - 123	0	24

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Method: 1631E - Mercury, Low Level (CVAFS) (Continued)

Lab Sample ID: MB 580-415709/15

Matrix: Water

Analysis Batch: 415709

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/17/23 14:31	1

Lab Sample ID: MB 580-415709/16

Matrix: Water

Analysis Batch: 415709

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/17/23 14:35	1

Lab Sample ID: MB 580-415709/17

Matrix: Water

Analysis Batch: 415709

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/17/23 14:39	1

Lab Sample ID: LCS 580-415709/24

Matrix: Water

Analysis Batch: 415709

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	5.00	5.12		ng/L		102	77 - 123

Lab Sample ID: LCSD 580-415709/25

Matrix: Water

Analysis Batch: 415709

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	5.00	5.02		ng/L		100	77 - 123	2	24

Lab Sample ID: 580-122205-3 MS

Matrix: Water

Analysis Batch: 415709

Client Sample ID: GR-23-D-T1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	550		750	1220		ng/L		90	71 - 125

Lab Sample ID: 580-122205-3 MSD

Matrix: Water

Analysis Batch: 415709

Client Sample ID: GR-23-D-T1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	550		750	1300		ng/L		100	71 - 125	6	24

Lab Sample ID: 580-122205-5 MS

Matrix: Water

Analysis Batch: 415709

Client Sample ID: GR-23-D-T3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	2200		3000	4880		ng/L		89	71 - 125

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: 580-122205-5 MSD

Matrix: Water

Analysis Batch: 415709

Client Sample ID: GR-23-D-T3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	2200		3000	4900		ng/L		89	71 - 125	0	24

Lab Sample ID: MB 580-415335/1-A

Matrix: Water

Analysis Batch: 415608

Client Sample ID: Method Blank

Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.50	0.079	ng/L			01/16/23 13:53	1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 580-415303/1

Matrix: Water

Analysis Batch: 415303

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		2.0	2.0	mg/L			01/13/23 08:41	1

Lab Sample ID: LCS 580-415303/2

Matrix: Water

Analysis Batch: 415303

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	500	486		mg/L		97	80 - 120

Lab Sample ID: MB 580-415447/1

Matrix: Water

Analysis Batch: 415447

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		2.0	2.0	mg/L			01/16/23 09:10	1

Lab Sample ID: LCS 580-415447/2

Matrix: Water

Analysis Batch: 415447

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	500	404		mg/L		81	80 - 120

Lab Sample ID: 580-122205-8 DU

Matrix: Water

Analysis Batch: 415447

Client Sample ID: GR-23-D-T6

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	190		189		mg/L		1	20

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: 580-122205-9 DU				Client Sample ID: GR-23-D-T7			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 415447							
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD Limit
Total Suspended Solids	59		50.0		mg/L		17 20

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-WB

Lab Sample ID: 580-122205-1

Date Collected: 01/09/23 05:25

Matrix: Water

Date Received: 01/13/23 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415446	AJD	EET SEA	01/16/23 11:40
Total/NA	Analysis	1630		1	415577	V1R	EET SEA	01/16/23 19:01
Total/NA	Analysis	1631E		1	415608	D1C	EET SEA	01/16/23 19:13

Client Sample ID: GR-23-D-EQ

Lab Sample ID: 580-122205-2

Date Collected: 01/09/23 05:30

Matrix: Water

Date Received: 01/13/23 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415446	AJD	EET SEA	01/16/23 11:40
Total/NA	Analysis	1630		1	415577	V1R	EET SEA	01/16/23 19:11
Total/NA	Analysis	1631E		1	415709	COW	EET SEA	01/17/23 16:06

Client Sample ID: GR-23-D-T1

Lab Sample ID: 580-122205-3

Date Collected: 01/09/23 06:00

Matrix: Water

Date Received: 01/13/23 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415691	AJD	EET SEA	01/18/23 11:23
Total/NA	Analysis	1630		1	415864	V1R	EET SEA	01/18/23 18:00
Dissolved	Filtration	Filtration			415335	LEL	EET SEA	01/13/23 10:46
Dissolved	Analysis	1631E		1	415709	COW	EET SEA	01/17/23 16:10
Total/NA	Analysis	1631E		20	415709	COW	EET SEA	01/17/23 14:14
Total/NA	Analysis	SM 2540D		1	415303	AUA	EET SEA	01/13/23 14:03

Client Sample ID: GR-23-D-T2

Lab Sample ID: 580-122205-4

Date Collected: 01/09/23 07:30

Matrix: Water

Date Received: 01/13/23 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415691	AJD	EET SEA	01/18/23 11:23
Total/NA	Analysis	1630		1	415864	V1R	EET SEA	01/18/23 18:31
Dissolved	Filtration	Filtration			415335	LEL	EET SEA	01/13/23 10:46
Dissolved	Analysis	1631E		1	415709	COW	EET SEA	01/17/23 16:14
Total/NA	Analysis	1631E		20	415709	COW	EET SEA	01/17/23 15:37
Total/NA	Analysis	SM 2540D		1	415303	AUA	EET SEA	01/13/23 14:03

Client Sample ID: GR-23-D-T3

Lab Sample ID: 580-122205-5

Date Collected: 01/09/23 11:00

Matrix: Water

Date Received: 01/13/23 08:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415446	AJD	EET SEA	01/16/23 11:40
Total/NA	Analysis	1630		1	415577	V1R	EET SEA	01/16/23 19:42

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-T3

Date Collected: 01/09/23 11:00

Date Received: 01/13/23 08:27

Lab Sample ID: 580-122205-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Filtration	Filtration			415335	LEL	EET SEA	01/13/23 10:46
Dissolved	Analysis	1631E		1	415709	COW	EET SEA	01/17/23 16:18
Total/NA	Analysis	1631E		50	415709	COW	EET SEA	01/17/23 14:18
Total/NA	Analysis	SM 2540D		1	415303	AUA	EET SEA	01/13/23 14:03

Client Sample ID: GR-23-D-T4

Date Collected: 01/09/23 11:15

Date Received: 01/13/23 08:27

Lab Sample ID: 580-122205-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415691	AJD	EET SEA	01/18/23 11:23
Total/NA	Analysis	1630		1	415864	V1R	EET SEA	01/18/23 18:41
Dissolved	Filtration	Filtration			415335	LEL	EET SEA	01/13/23 10:46
Dissolved	Analysis	1631E		1	415709	COW	EET SEA	01/17/23 16:23
Total/NA	Analysis	1631E		50	415709	COW	EET SEA	01/17/23 15:54
Total/NA	Analysis	SM 2540D		1	415303	AUA	EET SEA	01/13/23 14:03

Client Sample ID: GR-23-D-T5

Date Collected: 01/09/23 14:05

Date Received: 01/13/23 08:27

Lab Sample ID: 580-122205-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415446	AJD	EET SEA	01/16/23 11:40
Total/NA	Analysis	1630		1	415577	V1R	EET SEA	01/16/23 20:02
Dissolved	Filtration	Filtration			415335	LEL	EET SEA	01/13/23 10:46
Dissolved	Analysis	1631E		1	415709	COW	EET SEA	01/17/23 16:27
Total/NA	Analysis	1631E		50	415709	COW	EET SEA	01/17/23 15:58
Total/NA	Analysis	SM 2540D		1	415303	AUA	EET SEA	01/13/23 14:03

Client Sample ID: GR-23-D-T6

Date Collected: 01/10/23 09:45

Date Received: 01/13/23 08:27

Lab Sample ID: 580-122205-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415691	AJD	EET SEA	01/18/23 11:23
Total/NA	Analysis	1630		1	415864	V1R	EET SEA	01/18/23 18:51
Dissolved	Filtration	Filtration			415335	LEL	EET SEA	01/13/23 10:46
Dissolved	Analysis	1631E		1	415709	COW	EET SEA	01/17/23 16:31
Total/NA	Analysis	1631E		20	415709	COW	EET SEA	01/17/23 15:41
Total/NA	Analysis	SM 2540D		1	415447	AUA	EET SEA	01/16/23 09:10

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Client Sample ID: GR-23-D-T7

Date Collected: 01/11/23 09:30

Date Received: 01/13/23 08:27

Lab Sample ID: 580-122205-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415691	AJD	EET SEA	01/18/23 11:23
Total/NA	Analysis	1630		1	415864	V1R	EET SEA	01/18/23 19:01
Dissolved	Filtration	Filtration			415335	LEL	EET SEA	01/13/23 10:46
Dissolved	Analysis	1631E		1	415709	COW	EET SEA	01/17/23 16:43
Total/NA	Analysis	1631E		5	415709	COW	EET SEA	01/17/23 15:29
Total/NA	Analysis	SM 2540D		1	415447	AUA	EET SEA	01/16/23 09:10

Client Sample ID: GR-23-D-T8

Date Collected: 01/12/23 09:40

Date Received: 01/13/23 08:27

Lab Sample ID: 580-122205-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	1630			415691	AJD	EET SEA	01/18/23 11:23
Total/NA	Analysis	1630		1	415864	V1R	EET SEA	01/18/23 19:11
Dissolved	Filtration	Filtration			415335	LEL	EET SEA	01/13/23 10:46
Dissolved	Analysis	1631E		1	415709	COW	EET SEA	01/17/23 16:48
Total/NA	Analysis	1631E		5	415709	COW	EET SEA	01/17/23 15:33
Total/NA	Analysis	SM 2540D		1	415447	AUA	EET SEA	01/16/23 09:10

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Laboratory: Eurofins Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2540D		Water	Total Suspended Solids
ANAB	Dept. of Defense ELAP	L2236	01-19-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2540D		Water	Total Suspended Solids
ANAB	Dept. of Energy	L2236	01-19-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2540D		Water	Total Suspended Solids
ANAB	ISO/IEC 17025	L2236	01-19-25
Arkansas DEQ	State	8801526	05-23-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids
California	State	2954	07-07-22 *
Florida	NELAP	E87575	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids
Louisiana (All)	NELAP	03073	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 2540D		Water	Total Suspended Solids
Maine	State	WA01273	05-02-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids
Montana (UST)	State	NA	04-14-27

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
1631E		Water	Mercury

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Laboratory: Eurofins Seattle (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
SM 2540D		Water	Total Suspended Solids
New Jersey	NELAP	WA014	06-30-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids
New York	NELAP	11662	04-01-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids
Oregon	NELAP	4167	07-08-23
US Fish & Wildlife	US Federal Programs	A20571	06-30-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
1631E		Water	Mercury
SM 2540D		Water	Total Suspended Solids
USDA	US Federal Programs	525-23-4-22573	01-04-26
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
1631E		Water	Mercury
SM 2540D		Water	Total Suspended Solids
Washington	State	C788	07-13-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
1631E		Water	Mercury
SM 2540D		Water	Total Suspended Solids
Wisconsin	State	399133460	08-31-23
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
1630	1630	Water	Methyl Mercury
SM 2540D		Water	Total Suspended Solids

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-122205-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-122205-1	GR-23-D-WB	Water	01/09/23 05:25	01/13/23 08:27
580-122205-2	GR-23-D-EQ	Water	01/09/23 05:30	01/13/23 08:27
580-122205-3	GR-23-D-T1	Water	01/09/23 06:00	01/13/23 08:27
580-122205-4	GR-23-D-T2	Water	01/09/23 07:30	01/13/23 08:27
580-122205-5	GR-23-D-T3	Water	01/09/23 11:00	01/13/23 08:27
580-122205-6	GR-23-D-T4	Water	01/09/23 11:15	01/13/23 08:27
580-122205-7	GR-23-D-T5	Water	01/09/23 14:05	01/13/23 08:27
580-122205-8	GR-23-D-T6	Water	01/10/23 09:45	01/13/23 08:27
580-122205-9	GR-23-D-T7	Water	01/11/23 09:30	01/13/23 08:27
580-122205-10	GR-23-D-T8	Water	01/12/23 09:40	01/13/23 08:27

Ship To:
Patrick Garcia-Strickland
Eurofins Frontier Global Sciences
5755 8th Street East
Tacoma, WA 98424

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech
3697 Mt. Diablo Blvd, Ste 150
Lafayette, CA
ted.donn@tetratech.com

General Notes:

Perform QA analyses on these samples.
Please report all results to the MDL, J-flag results between MDL and RL
Please report results in pdf format with Excel EDO deliverable

Project	SampleID	Medium	Date	Time	Preservation	Hg-total (EPA 1631E)	Hg-dissolved (EPA-1631E) Laboratory filtration	MeHg (EPA 1630/FGS-70)	Total Suspended Solids (EPA 160.2 or SM2540d)	Comments
Storm D	GR-23-D-WB	Water	9-Jan-2023	5:25	HCl	X				
Storm D	GR-23-D-WB	Water	9-Jan-2023	5:25	H ₂ SO ₄			X		
Storm D	GR-23-D-EQ	Water	9-Jan-2023	5:30	cold	X				
Storm D	GR-23-D-EQ	Water	9-Jan-2023	5:30	H ₂ SO ₄			X		
Storm D										
Storm D	GR-23-D-T1	Water	9-Jan-2023	6:00	HCl	X				
Storm D	GR-23-D-T1	Water	9-Jan-2023	6:00	COLD		X			
Storm D	GR-23-D-T1	Water	9-Jan-2023	6:00	H ₂ SO ₄			X		
Storm D	GR-23-D-T1	Water	9-Jan-2023	6:00	COLD				X	
Storm D										
Storm D	GR-23-D-T2	Water	9-Jan-2023	7:30	HCl	X				
Storm D	GR-23-D-T2	Water	9-Jan-2023	7:30	COLD		X			
Storm D	GR-23-D-T2	Water	9-Jan-2023	7:30	H ₂ SO ₄			X		
Storm D	GR-23-D-T2	Water	9-Jan-2023	7:30	COLD				X	
Storm D										
Storm D	GR-23-D-T3	Water	9-Jan-2023	11:00	HCl	X				
Storm D	GR-23-D-T3	Water	9-Jan-2023	11:00	COLD		X			
Storm D	GR-23-D-T3	Water	9-Jan-2023	11:00	H ₂ SO ₄			X		
Storm D	GR-23-D-T3	Water	9-Jan-2023	11:00	COLD				X	
Storm D										
Storm D	GR-23-D-T4	Water	9-Jan-2023	11:15	HCl	X				
Storm D	GR-23-D-T4	Water	9-Jan-2023	11:15	COLD		X			
Storm D	GR-23-D-T4	Water	9-Jan-2023	11:15	H ₂ SO ₄			X		
Storm D	GR-23-D-T4	Water	9-Jan-2023	11:15	COLD				X	
Storm D										
Storm D	GR-23-D-T5	Water	9-Jan-2023	14:05	HCl	X				
Storm D	GR-23-D-T5	Water	9-Jan-2023	14:05	COLD		X			
Storm D	GR-23-D-T5	Water	9-Jan-2023	14:05	H ₂ SO ₄			X		
Storm D	GR-23-D-T5	Water	9-Jan-2023	14:05	COLD				X	



580-122205 Chain of Custody

Relinquished by:

Relinquished by:

Received by:

Received by:

1-13-23
1/13/23

EFHS Sec dig 3 CF=40.12
2/10/23

Ship To:
Patrick Garcia-Strickland
Eurofins Frontier Global Sciences
5755 8th Street East
Tacoma, WA 98424

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech
3697 Mt. Diablo Blvd. Ste 150
Lafayette, CA
ted.donn@tetratech.com

Project	SampleID	Medium	Date	Time	Preservation	Hg-total (EPA 1631E)	Hg-dissolved (EPA-1631E) Laboratory filtration	MeHg (EPA 1630/FGS-70)	Total Suspended Solids (EPA 160.2 or SM2540d)	Comments
Storm D	GR-23-D-T6	Water	10-Jan-2023	9:45	HCl	X				
Storm D	GR-23-D-T6	Water	10-Jan-2023	9:45	COLD		X			
Storm D	GR-23-D-T6	Water	10-Jan-2023	9:45	H ₂ SO ₄			X		
Storm D	GR-23-D-T6	Water	10-Jan-2023	9:45	COLD				X	
Storm D	GR-23-D-T7	Water	11-Jan-2023	9:30	HCl	X				
Storm D	GR-23-D-T7	Water	11-Jan-2023	9:30	COLD		X			
Storm D	GR-23-D-T7	Water	11-Jan-2023	9:30	H ₂ SO ₄			X		
Storm D	GR-23-D-T7	Water	11-Jan-2023	9:30	COLD				X	
Storm D	GR-23-D-T8	Water	12-Jan-2023	9:40	HCl	X				
Storm D	GR-23-D-T8	Water	12-Jan-2023	9:40	COLD		X			
Storm D	GR-23-D-T8	Water	12-Jan-2023	9:40	H ₂ SO ₄			X		
Storm D	GR-23-D-T8	Water	12-Jan-2023	9:40	COLD				X	

Relinquished by:

1/12/2023

Relinquished by:

Received by:

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 580-122205-1

Login Number: 122205

List Source: Eurofins Seattle

List Number: 1

Creator: LaCount, Lilly-Anna E

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX B

FISH SURVEY FIELD REPORTS

Memorandum

To: Ted Donn, Tetra Tech
Ted.Donn@tetratech.com

From: Stewart DesMeules
desmeules@wra-ca.com
415-578-3182

Date: December 12th, 2019

Subject: 2019 Guadalupe TMDL Sampling Summary Memo

This purpose of this memorandum is to provide a summary of the 2019 sampling efforts conducted by WRA biologists in support of the Guadalupe Watershed Mercury TMDL project between August and October 2019. Fish sampling was conducted under two permits, a California Department of Fish and Wildlife Scientific Collecting Permit (SCP), and a National Marine Fisheries Service (NMFS) 4(d) permit. Methods, a summary of sampling constraints, and sampling results are presented below.

Fieldwork Summary

Fish sampling was conducted across four sampling dates, August 22nd, October 16th, 17th, and 29th. For each sampling date, a crew of 2-3 biologists utilized primarily seine nets to capture target fish at each sample location. Dip nets and minnow traps were also utilized as a method of fish collection. While electrofishing was an anticipated and permitted method of capturing target fish, it was not utilized as a method due to unforeseen temperature constraints. At all sites, water quality parameters were collected, including temperature, salinity, conductivity, dissolved oxygen, and pH. Sampling was generally conducted starting soon after sunrise, and continued as long as conditions stayed within the limits of associated project permits.

Sampling Conditions

General conditions and water quality information collected during sampling efforts are summarized in Tables 1-4 below. If sampling wasn't conducted at a sample site on a given day, it is noted in the tables. Where thermal conditions prevented sampling, temperatures were still collected and provided in the tables. Sample sites included Alamitos Creek at Harry Road (ACR), Guadalupe Creek at Singletree Way (GCR), Lake Almaden (LAL), Guadalupe River at Foxworthy Avenue (GRF), Guadalupe River at Coleman Avenue (GRC), and Gatos Creek at Lincoln Avenue (GCL).

Table 1. Water quality: 8/22/2019

Site	Temperature (C)	Salinity (PPT)	Conductivity (uS)	Dissolved Oxygen (mg/L)	pH
ACR	20.3	0.2	408.8	11.4	8.47
GCR	20.3	0.2	338.9	11.7	8.4
LAL	23.8	no sampling occurred			
GRF	25.4	no sampling occurred			
GRC	24.9	no sampling occurred			
GCL	25.4	no sampling occurred			

Table 2. Water quality: 10/16/2019

Site	Temperature (C)	Salinity (PPT)	Conductivity (uS)	Dissolved Oxygen (mg/L)	pH
ACR	no sampling occurred				
GCR	14.2	0.2	433.7	9.48	8.55
LAL	18.3	0.3	472	7.9	8.85
GRF	17.7	0.3	444	8.55	9.42
GRC	no sampling occurred				
GCL	16.6	0.2	285.1	10.57	9.1

Table 3. Water quality: 10/17/2019

Site	Temperature (C)	Salinity (PPT)	Conductivity (uS)	Dissolved Oxygen (mg/L)	pH
ACR	no sampling occurred				
GCR	no sampling occurred				
LAL	no sampling occurred				
GRF	no sampling occurred				
GRC	17.0	0.6	1040	12.7	8
GCL	17.3	0.2	1000	12.2	8

Table 4. Water quality: 10/29/2019

Site	Temperature (C)	Salinity (PPT)	Conductivity (uS)	Dissolved Oxygen (mg/L)	pH
ACR	no sampling occurred				
GCR	no sampling occurred				
LAL	16.6	0.2	425	not collected	8.9
GRF	12.97	0.3	526	6.44	8.28
GRC	no sampling occurred				
GCL	16.1	0.3	334	not collected	8.2

Project Constraints

The Guadalupe River watershed is a dynamic aquatic system, and challenges were encountered during the 2019 efforts. Temperature exceedances were the primary constraint to sampling. Additionally, limitations on bycatch of protected steelhead (*Oncorhynchus mykiss*) represented a constraint on sampling in some locations. Lastly, general scarcity of target species and sizes necessitated a higher level effort than anticipated.

Temperature Constraints

Permit conditions limited electrofishing in waters temperatures at or below 18C, and precluded all sampling methods when water temperatures exceeded 21C. On the first day of sampling (August 22nd), biologists encountered water temperatures of approximately 20C early in the morning, thereby preventing sampling with an electrofisher. Instead, seine nets were used until temperature conditions exceeded the 21C threshold, and all further sampling was ceased. A prolonged period of elevated water temps, the permits were amended to extend the sampling window to November 1st, 2019 to allow for temperatures to drop below thermal thresholds.

Steelhead Avoidance and Constraints

Sampling dates were selected based on the CDFW and NMFS environmental work window for steelhead (June 1 through November 30a period when steelhead are least likely to be present. Furthermore, the selected sampling dates correspond to a period that favored the presence of target species (i.e. California roach [*Hesperoleucus symmetricus*]) which are more tolerant of warm water, and reducing the chance of steelhead bycatch.

Biologists encountered steelhead at Guadalupe Creek at Singletree Way, and stopped sampling as to avoid exceeding permitted take limits. An additional amendment was required to both permits to re-allocate steelhead take to seining, after temperatures exceeded the allowable limits for electrofishing.

Target Species Constraints

The goal of this effort was to secure 20 individuals of the target species within a particular size class at each sampling location. California roach were the target species at all sites except for Lake Almaden, where largemouth bass (*Micropterus salmoides*) were targeted. Due to the restricted use of the electrofisher because of thermal constraints, seining proved to require higher sampling effort to fulfill sampling quotas.

Sampling quotas were not met at all sites due to restrictions on sampling methods, timing and miscellaneous site conditions including: refuse and obstacles, low water levels, and general scarcity of target species.

Initial sampling performed at Lake Almaden yielded no catch of target species (largemouth bass). However, a subsequent visit yielded nearly the entire quota of target species and was subsidized with two individuals of bluegill (*Lepomis macrochirus*), a previously approved alternate.

Results Summary

Table 5 provides a summary of collected samples from the 2019 sampling efforts. The majority of the sites were fully sampled, however in some instances, the full quota was unable to be fulfilled.

Site	Target size California roach	Outside target size California roach	Target size Largemouth Bass	Alternative species retained	Total samples
ACR	20	-	-	-	20
GCR	20	-	--	-	20
LAL	-	-	18	2 (bluegill)	20
GRF	-	6	-	1 (bluegill)	7
GRC	20	-	-	-	20
GCL	2	12	-	1 (bluegill)	15

Attachments

Attachment A: Photo Appendix



Overview of the Guadalupe River at Coleman Avenue sampling site.



Overview of the Los Gatos (reference) sampling site.



Overview of the Lake Almaden sampling site.



Overview of the Guadalupe River at Foxworthy Avenue sampling site.



WRA biologists collecting water quality data at the Guadalupe Creek at Singletree Way sampling site.



WRA biologists conducting seining.



Guadalupe River at Foxworthy Avenue sampling site.



Overview of the Alamitos Creek at Harry Road sampling site.



Overview of the Guadalupe Creek at Singletree Way sampling site.



Steelhead encountered during sampling.



California roach encountered during sampling.



Sacramento sucker encountered during sampling.

MEMORANDUM

TO:	Ted Donn, Tetrattech Ted.Donn@tetrattech.com	FROM:	Nicholas Brinton-McBean (WRA) brinton@wra-ca.com
CC:			
DATE:	October 30, 2023		
SUBJECT:	2021 Guadalupe TMDL Sampling Summary Memo		

The purpose of this memorandum is to provide a summary of the 2021 sampling efforts conducted by WRA biologists in support of the Guadalupe Watershed Mercury Total Maximum Daily Load Monitoring Project (Project). Fish sampling was conducted on July 6, 2021 at two of the seven locations (Table 1). Sites are listed in the order which they were sampled in 2021. Sites which were not sampled due to temperature exceedances are also included for completeness.

Table 1. Fish Sample Sites in 2021

Sample Site	Abbreviation	Target Water Body Sampled	Latitude	Longitude	Target Species
Sampled					
Guadalupe Creek at Singletree Way	GC	Guadalupe Creek	37.233111	-121.898727	Age 1+ California roach
Guadalupe River at Coleman Avenue	GRC	Guadalupe River	37.334536	-121.899469	Age 1+ California roach
Not Sampled					
Los Gatos Creek at Lincoln Ave	GCL	Los Gatos Creek	37.18457	-121.541514	Age 1+ California roach
Guadalupe River at Foxworthy Avenue	GRF	Guadalupe River	37.278207	-121.877991	Age 1+ California roach
Alamitos Creek at Harry Road	ACH	Alamitos Creek	37.201529	-121.829007	Age 1+ California roach
Alamitos Creek at Graystone Lane	ACG	Alamitos Creek	37.222467	-121.850808	Age 1+ California roach
Lake Almaden	LA	Lake Almaden	37.24015	-121.869773	Age 0+ largemouth bass

Sampling was conducted under two permits, a California Department of Fish and Wildlife, Specific Use Scientific Collecting Permit (S-183100007-18311-001-01), and a National Marine Fisheries Service Section 4(d) permit (24212). A summary of sampling methods, discussion of constraints, and sampling results are presented below.

1.0 FIELDWORK SUMMARY

Fish sampling was conducted across two sample sites on one day: July 6, 2021. For each sampling site a crew of 2 biologists utilized seine nets to capture target fish at each sample

location. Dip nets and minnow traps were also utilized as a method of fish collection. While electrofishing was an anticipated and permitted method of capturing target fish, it was not utilized as a method due to temperature constraints. At all sites, water quality parameters were collected, including temperature, salinity, conductivity, dissolved oxygen, and pH. Sampling was generally conducted starting soon after sunrise and continued as long as conditions stayed within the limits of associated project permits.

1.1 Sampling Conditions

General conditions and water quality information were collected during sampling efforts and are summarized in Table 2 below.

Table 2. Water Quality for all Sample Sites

Site	Sample Time	Temperature (°C)	Salinity (PPT)	Conductivity (µS)	Dissolved Oxygen (mg/L)	pH
July 6, 2021						
GC	07:51	19.9	0.3	636	3.35	9.5
	10:30	20.9	0.3	710	3.40	9.3
GRC	11:35	19.7	0.5	962	6.47	9.7
	14:31	19.6	0.5	962	6.47	9.45

2.0 PROJECT CONSTRAINTS

The Guadalupe River watershed is a dynamic aquatic system, and challenges were expected to be encountered based on how sampling proceeded in 2021. Constraints which limited sampling in previous years were more prevalent and after sampling on July 6, temperatures were prohibitively high such that no additional sampling could be conducted in 2021.

2.1 Temperature and Low Water Constraints

Permit conditions limited electrofishing to water temperatures at or below 18°C and precludes all sampling when water temperatures exceed 21°C. On the first day of sampling (July 6), biologists encountered water temperatures exceeding 18°C but were slightly below the 21°C cutoff during sampling of both sites. Sampling occurred with seines and samples from two sites were collected.

Subsequent sampling at remaining sites could not be conducted as temperatures were either above the 21°C cutoff or water was entirely absent. At the Lake Almaden site water was present but temperatures were 24.6°C, which precluded all sampling. Alamitos Creek at Harry Road, Alamitos Creek at Graystone Lane, Guadalupe River at Foxworthy, and Los Gatos Creek at Lincoln were all dry in July 2021.

Later in the year, the ongoing drought coupled with high summer temperatures continued to preclude sampling through October. As such no further sampling occurred in 2021.

3.0 RESULTS SUMMARY

The goal of this sampling effort was to secure 20 individuals of the target species at each sampling location. Age 1+ California roach (*Hesperoleucus symmetricus*) were the target species

at all sites except for Lake Almaden which targeted Age 0 largemouth bass (*Micropterus salmoides*). In the event target species were not encountered at a site, sampling efforts had been approved to collect alternatives species, including Age 0 largemouth bass or other Age 0 centrarchids (e.g. black crappie [*Pomoxis nigromaculatus*], bluegill [*Lepomis macrochirus*] etc.).

Sampling quotas and ideal target species were collected at both sites in 2021. Table 3 provides a summary of collected samples from the 2021 sampling efforts. At the conclusion of sampling efforts, the two sites which were able to be surveyed prior to temperature exceedances had been successfully sampled within the survey sample window, using approved methods, and capturing a full allotment of target fish.

Table 3. Summary of 2021 Sampling Efforts

Site	Target Size California Roach	Outside Target Size California Roach	Target Size Largemouth Bass	Alternative Species Retained	Total Samples Collected
GC	20	-	-	-	20
GRC	20	-	-	-	20

Attachments

Attachment A. Photo Appendix

Attachment A.

Photo Appendix





Photo 1. Biologist collecting water quality at one of two sites where water was present.



Photo 2: Processing fish at the Guadalupe River at Coleman.



Photo 3. Dry section of Guadalupe River at Foxworthy.



Photo 4. Dry section of Alamitos Creek



Photo 5. Dry section of Guadalupe Creek at Singletree.



Photo 6. While water was present at Lake Almaden, temperatures were at least 3°C above the threshold allowed in permits. As such no sampling occurred in 2021.

MEMORANDUM

TO:	Ted Donn, Tetrattech Ted.Donn@tetrattech.com	FROM:	Nicholas Brinton-McBean (WRA) brinton@wra-ca.com
CC:			
DATE:	October 3, 2023		
SUBJECT:	2023 Guadalupe TMDL Sampling Summary Memo		

The purpose of this memorandum is to provide a summary of the 2023 sampling efforts conducted by WRA biologists in support of the Guadalupe Watershed Mercury Total Maximum Daily Load Monitoring Project (Project). Fish sampling was conducted in June 2023 at seven locations (Table 1). Sites are listed in the order which they were sampled in 2023.

Table 1. Fish Sample Sites in 2023

Sample Site	Abbreviation	Target Water Body Sampled	Latitude	Longitude	Target Species
Los Gatos Creek at Lincoln Ave	GCL	Los Gatos Creek	37.18457	-121.541514	Age 1+ California roach
Guadalupe River at Foxworthy Avenue	GRF	Guadalupe River	37.278207	-121.877991	Age 1+ California roach
Guadalupe River at Coleman Avenue	GRC	Guadalupe River	37.334536	-121.899469	Age 1+ California roach
Alamitos Creek at Harry Road	ACH	Alamitos Creek	37.201529	-121.829007	Age 1+ California roach
Alamitos Creek at Graystone Lane	ACG	Alamitos Creek	37.222467	-121.850808	Age 1+ California roach
Guadalupe Creek at Singletree Way	GC	Guadalupe Creek	37.233111	-121.898727	Age 1+ California roach
Lake Almaden	LA	Lake Almaden	37.24015	-121.869773	Age 0+ largemouth bass

Sampling was conducted under two permits, a California Department of Fish and Wildlife, Specific Use Scientific Collecting Permit (S-183100007-18311-001-02), and a National Marine Fisheries Service 10(a)1(A) permit (16417-3M). A summary of sampling methods, discussion of constraints, and sampling results are presented below.

1.0 FIELDWORK SUMMARY

Fish sampling was conducted across seven sample sites on three dates: June 21, 22, and 26, 2023. For each sampling date, a crew of two to three biologists primarily utilized an electrofishing backpack and dipnets to capture target fish at each sample location. Seine nets and minnow traps were also utilized as a method of fish collection. Per permit parameters, electrofishing was not utilized when temperatures rose above the threshold of 18°C. At all sites,

water quality parameters were collected, including temperature, salinity, conductivity, and dissolved oxygen. PH was not collected as the pH meter failed and could not be repaired before the completion of sampling. Sampling was generally conducted starting in the early morning and continued as long as conditions remained within the limits stated in sampling permits.

1.1 Sampling Conditions

General conditions and water quality information were collected during sampling efforts and are summarized in Table 2 below.

Table 2. Water Quality for all Sample Sites

Site	Sample Time	Temperature (°C)	Salinity (PPT)	Conductivity (µS)	Dissolved Oxygen (mg/L)	pH
June 21, 2023						
GCL	08:20	17	0.1	261.3	7.49	--
GRF	09:54	17.8	0.2	445	7.01	--
	11:57	19.1	0.2	454	6.85	--
GRC	12:43	19.5	0.2	614	5.50	--
	13:15	19.8	0.3	623	5.35	--
June 22, 2023						
ACH	08:16	15.0	0.2	431	5.21	--
	09:30	15.0	0.2	435	5.10	--
ACG	10:22	15.5	0.2	443	5.78	--
	11:45	16.1	0.2	444	5.56	--
GC	13:05	15.2	0.2	379	4.78	--
	13:45	15.5	0.2	379	4.70	--
June 26, 2023						
LA	08:40	20.8	0.2	489.8	5.70	--

2.0 PROJECT CONSTRAINTS

The Guadalupe River watershed is a dynamic aquatic system, and challenges were expected to be encountered; however, constraints which prevented sampling in previous years were able to be avoided by working earlier in the season. Conducting work in June meant that the primary constraint (temperature) was never high enough to fully prevent sampling. Temperature is discussed in more detail below.

2.1 Temperature Constraints

Permit conditions limited electrofishing to water temperatures at or below 18°C and precludes all sampling when water temperatures exceed 21°C. On the first day of sampling (June 21), biologists encountered water temperatures near 18°C during sampling of the second site, Guadalupe River at Fremont (GRF). Sampling began with electrofishing but switched to seining after the first pass when temperatures reached the 18°C threshold. Sampling continued with seines for the remainder of the day and water temperatures at subsequent sampling locations never surpassed the 21°C threshold.

On June 26, temperatures within Lake Almaden were over 18°C therefore electrofishing was prohibited, and seining was required. Sampling within Lake Almaden was completed with a final water temperature just below the 21°C threshold, allowing for the final samples of the year to be

collected. As such sampling never had to fully cease due to water temperature restrictions as had been the case in previous years when sampling either took additional days or had to be avoided entirely.

2.2 Steelhead Avoidance and Constraints

Sampling dates were restricted based on the CDFW and NMFS environmental window for steelhead (June 1 through November 30). This period of time corresponds to the times when steelhead are least likely to be present. Furthermore, WRA worked with Santa Clara Valley Water to select the sampling site order and dates to correspond to conditions that favored the presence of target species while simultaneously minimizing the potential presence of steelhead. No steelhead were encountered during sampling in 2023.

3.0 RESULTS SUMMARY

The goal of this sampling effort was to secure 20 individuals of the target species at each sampling location. Age 1+ California roach (*Hesperoleucus symmetricus*) were the target species at all sites except for Lake Almaden which targeted Age 0 largemouth bass (*Micropterus salmoides*). In the event target species were not encountered at a site, sampling efforts had been approved to collect alternative species, including Age 0 largemouth bass or other Age 0 centrarchids (e.g. black crappie [*Pomoxis nigromaculatus*], bluegill [*Lepomis macrochirus*] etc.).

Sampling quotas and ideal target species were collected at all sites with the exception of GRF. While sampling at GRF, general scarcity of target species necessitated the collection of alternative species. Sampling at GRF yielded only two California roach but was supplemented with 14 largemouth bass, and one black crappie.

Table 3 provides a summary of collected samples from the 2023 sampling efforts. At the conclusion of sampling efforts, all sites had been successfully sampled within the survey sample window, using approved methods, and capturing a full allotment of target fish. Photographs of sampling sites and fish are included with Attachment A.

Table 3. Summary of 2023 Sampling Efforts

Site	Target Size California Roach	Outside Target Size California Roach	Target Size Largemouth Bass	Alternative Species Retained	Total Samples Collected
GCL	20	-	-	-	20
GRF	2	-		14 Largemouth bass 1 black crappie	17
GRC	20	-	-	-	20
ACH	20	-	-	-	20
ACG	20	-	-	-	20
GC	20	-	-	-	20
LA	-	-	20	-	20

Attachments

Attachment A. Photo Appendix

Attachment A.

Photo Appendix





Overview of Guadalupe River at Foxworthy Ave sampling site.



Overview of Guadalupe River at Coleman Ave sampling site.



Overview of Los Gatos Creek (reference site) at Lincoln Ave sampling site.



Overview of Alamitos Creek at Harry Road sampling site.



Overview of Alamitos Creek at Greystone sampling site.



Biologists processing and collecting samples.



Overview of Guadalupe Creek sampling site.



Sacramento sucker encountered during sampling efforts.



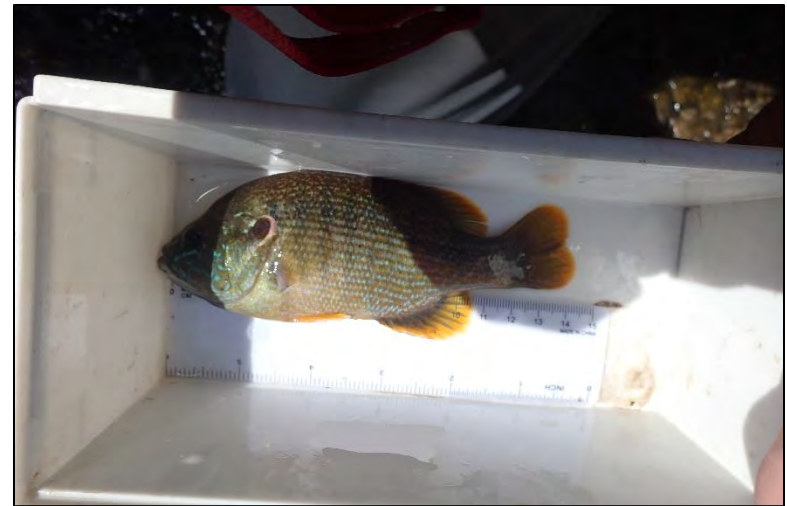
Overview of Lake Almaden sampling site and seine set up.



A bluegill and several bass encountered during sampling at Lake Almaden.



A large California roach encountered during sampling.



A redear sunfish (*Lepomis* sp.) encountered during sampling.

APPENDIX C

FISH COLLECTION (LENGTH-WEIGHT) DATA

2019 Fish Collection

Location	Species	Fish ID	Date	Species	Fork Length (mm)	Weight (g)	Collection method	Mercury Analysis?	Notes
ACR	CR	19-ACR-01	22-Aug-2019	California roach	49	1.59	Seine	Yes	
ACR	CR	19-ACR-02	22-Aug-2019	California roach	43	0.95	Seine	Yes	
ACR	CR	19-ACR-03	22-Aug-2019	California roach	39	0.72	Seine	Yes	
ACR	CR	19-ACR-04	22-Aug-2019	California roach	41	0.92	Seine	Yes	
ACR	CR	19-ACR-05	22-Aug-2019	California roach	39	0.73	Seine	Yes	
ACR	CR	19-ACR-06	22-Aug-2019	California roach	39	0.74	Seine	Yes	
ACR	CR	19-ACR-07	22-Aug-2019	California roach	37	0.65	Seine	Yes	
ACR	CR	19-ACR-08	22-Aug-2019	California roach	34	0.53	Seine	Yes	
ACR	CR	19-ACR-09	22-Aug-2019	California roach	35	0.62	Seine	Yes	
ACR	CR	19-ACR-10	22-Aug-2019	California roach	39	0.76	Seine	Yes	
ACR	CR	19-ACR-11	22-Aug-2019	California roach	36	0.58	Seine	Yes	
ACR	CR	19-ACR-12	22-Aug-2019	California roach	36	0.67	Seine	Yes	
ACR	CR	19-ACR-13	22-Aug-2019	California roach	29	0.38	Seine	Yes	
ACR	CR	19-ACR-14	22-Aug-2019	California roach	28	0.33	Seine	Yes	
ACR	CR	19-ACR-15	22-Aug-2019	California roach	31	0.32	Seine	Yes	
ACR	CR	19-ACR-16	22-Aug-2019	California roach	38	0.65	Seine	Yes	
ACR	CR	19-ACR-17	22-Aug-2019	California roach	38	0.72	Seine	Yes	
ACR	CR	19-ACR-18	22-Aug-2019	California roach	34	0.5	Seine	Yes	
ACR	CR	19-ACR-19	22-Aug-2019	California roach	33	0.53	Seine	Yes	
ACR	CR	19-ACR-20	22-Aug-2019	California roach	33	0.61	Seine	Yes	
GCR	CR	19-GCR-01	22-Aug-2019	California roach	26	0.33	Seine	Yes	
GCR	CR	19-GCR-02	22-Aug-2019	California roach	35	0.64	Seine	Yes	
GCR	CR	19-GCR-03	22-Aug-2019	California roach	42	1.07	Seine	Yes	
GCR	CR	19-GCR-04	22-Aug-2019	California roach	46	1.27	Seine	Yes	
GCR	CR	19-GCR-05	22-Aug-2019	California roach	54	2.38	Seine	Yes	
GCR	CR	19-GCR-06	16-Oct-2019	California roach	45	0.85	Seine	Yes	
GCR	CR	19-GCR-07	16-Oct-2019	California roach	44	1.17	Seine	Yes	
GCR	CR	19-GCR-08	16-Oct-2019	California roach	54	1.86	Seine	Yes	
GCR	CR	19-GCR-09	16-Oct-2019	California roach	32	0.33	Seine	Yes	

2019 Fish Collection

Location	Species	Fish ID	Date	Species	Fork Length (mm)	Weight (g)	Collection method	Mercury Analysis?	Notes
GCR	CR	19-GCR-10	16-Oct-2019	California roach	37	0.63	Seine	Yes	
GCR	CR	19-GCR-11	16-Oct-2019	California roach	46	1.18	Seine	Yes	
GCR	CR	19-GCR-12	16-Oct-2019	California roach	27	0.25	Seine	Yes	
GCR	CR	19-GCR-13	16-Oct-2019	California roach	39	0.74	Seine	Yes	
GCR	CR	19-GCR-14	16-Oct-2019	California roach	51	1.87	Seine	Yes	
GCR	CR	19-GCR-15	16-Oct-2019	California roach	50	1.68	Seine	Yes	
GCR	CR	19-GCR-16	16-Oct-2019	California roach	52	1.91	Seine	Yes	
GCR	CR	19-GCR-17	16-Oct-2019	California roach	37	0.72	Seine	Yes	
GCR	CR	19-GCR-18	16-Oct-2019	California roach	42	0.87	Seine	Yes	
GCR	CR	19-GCR-19	16-Oct-2019	California roach	40	0.71	Seine	Yes	
GCR	CR	19-GCR-20	16-Oct-2019	California roach	33	0.61	Seine	Yes	
GRF	CR	19-GRF-01	29-Oct-2019	California roach	83	8.45	Seine	Yes	fish over target size
GRF	CR	19-GRF-02	29-Oct-2019	California roach	67	3.92	Seine	Yes	fish over target size
GRF	CR	19-GRF-03	29-Oct-2019	California roach	63	3.51	Seine	Yes	fish over target size
GRF	CR	19-GRF-04	29-Oct-2019	California roach	77	6.01	Seine	Yes	fish over target size
GRF	CR	19-GRF-05	29-Oct-2019	California roach	72	5.42	Seine	Yes	fish over target size
GRF	CR	19-GRF-06	29-Oct-2019	California roach	76	5.44	Seine	Yes	fish over target size
GRF	BG	19-GRF-07	29-Oct-2019	Bluegill	30	0.6	Seine	Yes	Alternative species retained: Bluegill
GRC	CR	19-GRC-01	17-Oct-2019	California roach	51	1.96	Seine	Yes	
GRC	CR	19-GRC-02	17-Oct-2019	California roach	47	1.56	Seine	Yes	
GRC	CR	19-GRC-03	17-Oct-2019	California roach	49	1.48	Seine	Yes	
GRC	CR	19-GRC-04	17-Oct-2019	California roach	50	1.57	Seine	Yes	
GRC	CR	19-GRC-05	17-Oct-2019	California roach	55	2.08	Seine	Yes	
GRC	CR	19-GRC-06	17-Oct-2019	California roach	47	0.85	Seine	Yes	
GRC	CR	19-GRC-07	17-Oct-2019	California roach	49	1.68	Seine	Yes	
GRC	CR	19-GRC-08	17-Oct-2019	California roach	49	1.53	Seine	Yes	
GRC	CR	19-GRC-09	17-Oct-2019	California roach	54	2.07	Seine	Yes	
GRC	CR	19-GRC-10	17-Oct-2019	California roach	55	2.7	Seine	Yes	
GRC	CR	19-GRC-11	17-Oct-2019	California roach	53	1.8	Seine	Yes	
GRC	CR	19-GRC-12	17-Oct-2019	California roach	54	2.2	Seine	Yes	
GRC	CR	19-GRC-13	17-Oct-2019	California roach	49	1.55	Seine	Yes	
GRC	CR	19-GRC-14	17-Oct-2019	California roach	50	1.66	Seine	Yes	
GRC	CR	19-GRC-15	17-Oct-2019	California roach	53	2.07	Seine	Yes	
GRC	CR	19-GRC-16	17-Oct-2019	California roach	55	2.4	Seine	Yes	
GRC	CR	19-GRC-17	17-Oct-2019	California roach	49	1.53	Seine	Yes	
GRC	CR	19-GRC-18	17-Oct-2019	California roach	58	1.32	Seine	Yes	

2019 Fish Collection

Location	Species	Fish ID	Date	Species	Fork Length (mm)	Weight (g)	Collection method	Mercury Analysis?	Notes
GRC	CR	19-GRC-19	17-Oct-2019	California roach	40	0.77	Seine	Yes	
GRC	CR	19-GRC-20	17-Oct-2019	California roach	33	0.49	Seine	Yes	
GCL	CR	19-GCL-01	29-Oct-2019	California roach	60	2.88	Seine	Yes	fish over target size
GCL	CR	19-GCL-02	29-Oct-2019	California roach	71	4.7	Seine	Yes	fish over target size
GCL	CR	19-GCL-03	29-Oct-2019	California roach	63	1.92	Seine	Yes	fish over target size
GCL	CR	19-GCL-04	29-Oct-2019	California roach	67	3.03	Seine	Yes	fish over target size
GCL	CR	19-GCL-05	29-Oct-2019	California roach	67	3.66	Seine	Yes	fish over target size
GCL	CR	19-GCL-06	29-Oct-2019	California roach	50	1.57	Seine	Yes	
GCL	CR	19-GCL-07	29-Oct-2019	California roach	58	2.28	Seine	Yes	fish over target size
GCL	CR	19-GCL-08	29-Oct-2019	California roach	55	1.94	Seine	Yes	
GCL	CR	19-GCL-09	29-Oct-2019	California roach	58	2.31	Seine	Yes	fish over target size
GCL	CR	19-GCL-10	29-Oct-2019	California roach	62	2.73	Seine	Yes	fish over target size
GCL	CR	19-GCL-11	29-Oct-2019	California roach	58	2.45	Seine	Yes	fish over target size
GCL	CR	19-GCL-12	29-Oct-2019	California roach	64	3.43	Seine	Yes	fish over target size
GCL	CR	19-GCL-13	29-Oct-2019	California roach	58	2.35	Seine	Yes	fish over target size
GCL	CR	19-GCL-14	29-Oct-2019	California roach	62	2.89	Seine	Yes	fish over target size
GCL	BG	19-GCL-15	29-Oct-2019	Bluegill	50	2.29	Seine	Yes	Alternative species retained: Bluegill
LAL	LMB	19-LAL-01	29-Oct-2019	Largemouth bass	71	4.52	Seine	Yes	
LAL	LMB	19-LAL-02	29-Oct-2019	Largemouth bass	68	4.04	Seine	Yes	
LAL	LMB	19-LAL-03	29-Oct-2019	Largemouth bass	72	5.1	Seine	Yes	
LAL	LMB	19-LAL-04	29-Oct-2019	Largemouth bass	63	3.31	Seine	Yes	
LAL	LMB	19-LAL-05	29-Oct-2019	Largemouth bass	64	3.27	Seine	Yes	
LAL	LMB	19-LAL-06	29-Oct-2019	Largemouth bass	73	4.98	Seine	Yes	
LAL	LMB	19-LAL-07	29-Oct-2019	Largemouth bass	98	13.28	Seine	Yes	
LAL	LMB	19-LAL-08	29-Oct-2019	Largemouth bass	84	7.56	Seine	Yes	
LAL	LMB	19-LAL-09	29-Oct-2019	Largemouth bass	63	3.39	Seine	Yes	
LAL	LMB	19-LAL-10	29-Oct-2019	Largemouth bass	68	4	Seine	Yes	
LAL	LMB	19-LAL-11	29-Oct-2019	Largemouth bass	55	2.52	Seine	Yes	
LAL	LMB	19-LAL-12	29-Oct-2019	Largemouth bass	69	3.94	Seine	Yes	
LAL	LMB	19-LAL-13	29-Oct-2019	Largemouth bass	97	12.53	Seine	Yes	
LAL	LMB	19-LAL-14	29-Oct-2019	Largemouth bass	60	3.12	Seine	Yes	
LAL	LMB	19-LAL-15	29-Oct-2019	Largemouth bass	89	10.03	Seine	Yes	
LAL	LMB	19-LAL-16	29-Oct-2019	Largemouth bass	93	9.55	Seine	Yes	
LAL	LMB	19-LAL-17	29-Oct-2019	Largemouth bass	83	6.23	Seine	Yes	
LAL	LMB	19-LAL-18	29-Oct-2019	Largemouth bass	66	4.27	Seine	Yes	

2019 Fish Collection

Location	Species	Fish ID	Date	Species	Fork Length (mm)	Weight (g)	Collection method	Mercury Analysis?	Notes
LAL	BG	19-LAL-19	29-Oct-2019	Bluegill	45	1.75	Seine	Yes	Alternative species retained: Bluegill
LAL	BG	19-LAL-20	29-Oct-2019	Bluegill	58	3.23	Seine	Yes	Alternative species retained: Bluegill

2019 Guadalupe Mercury Sampling results. All fish collected between 8/22/2019 and 10/29/2019 by WRA biologists.

Location Code Key

ACR Alamitos creek at Harry Road
GCR Guadalupe Creek at Singletree way
LAL Lake Almaden
GRF Guadalupe River at Foxworthy Avenue
GRC Guadalupe River at Coleman Avenue
GCL Gatos Creek at Lincoln Avenue (Reference site)

2021 Fish Collection

Guadalupe Watershed - 2021 Collections for Mercury Testing

Site Codes

GRC Guadalupe River at Coleman

GC Guadalupe Creek

Species	2021.07.06
Prickly sculpin	3
Sacramento sucker	62
California Roach	75
Bluegill	1

Site Name	Date	Fish ID	Species	Length (mm)	Weight (g)	Time	Mercury Analysis?	Number of Individuals
GC	2021.07.06	21-GC-001	California Roach	54	1.68	7:51	Yes	1
GC	2021.07.06	21-GC-002	California Roach	52	1.80	7:51	Yes	1
GC	2021.07.06	21-GC-003	California Roach	34	0.45	7:51	Yes	1
GC	2021.07.06	21-GC-004	California Roach	50	1.41	7:51	Yes	1
GC	2021.07.06	21-GC-005	California Roach	37	0.62	7:51	Yes	1
GC	2021.07.06	21-GC-006	California Roach	35	0.44	7:51	Yes	1
GC	2021.07.06	21-GC-007	California Roach	31	0.39	7:51	Yes	1
GC	2021.07.06	21-GC-008	California Roach	34	0.55	7:51	Yes	1
GC	2021.07.06	21-GC-009	California Roach	35	0.47	7:51	Yes	1
GC	2021.07.06	21-GC-010	California Roach	34	0.43	7:51	Yes	1
GC	2021.07.06	21-GC-011	California Roach	38	0.57	7:51	Yes	1
GC	2021.07.06	21-GC-012	California Roach	55	2.20	7:51	Yes	1
GC	2021.07.06	21-GC-013	California Roach	43	0.97	7:51	Yes	1
GC	2021.07.06	21-GC-014	California Roach	54	2.10	7:51	Yes	1
GC	2021.07.06	21-GC-015	California Roach	54	1.86	7:51	Yes	1
GC	2021.07.06	21-GC-016	California Roach	53	1.65	7:51	Yes	1
GC	2021.07.06	21-GC-017	California Roach	36	0.65	7:51	Yes	1
GC	2021.07.06	21-GC-018	California Roach	54	1.90	7:51	Yes	1
GC	2021.07.06	21-GC-019	California Roach	54	1.77	7:51	Yes	1
GC	2021.07.06	21-GC-020	California Roach	37	0.47	7:51	Yes	1
GC	2021.07.06	21-GC-021	Prickly sculpin	27-100		7:51	No	2
GC	2021.07.06	21-GC-022	Bluegill	18		7:51	No	1
GC	2021.07.06	21-GC-023	California Roach	23-39		7:51	No	31
GC	2021.07.06	21-GC-024	Sacramento sucker	25-55		7:51	No	4
GRC	2021.07.06	21-GRC-001	California Roach	55	2.27	11:35	Yes	1
GRC	2021.07.06	21-GRC-002	California Roach	27	0.28	11:35	Yes	1
GRC	2021.07.06	21-GRC-003	California Roach	28	0.25	11:35	Yes	1
GRC	2021.07.06	21-GRC-004	California Roach	32	0.33	11:35	Yes	1
GRC	2021.07.06	21-GRC-005	California Roach	28	0.25	11:35	Yes	1
GRC	2021.07.06	21-GRC-006	California Roach	34	0.49	11:35	Yes	1

2021 Fish Collection

<u>Site Name</u>	<u>Date</u>	<u>Fish ID</u>	<u>Species</u>	<u>Length (mm)</u>	<u>Weight (g)</u>	<u>Time</u>	<u>Mercury Analysis?</u>	<u>Number of Individuals</u>
GRC	2021.07.06	21-GRC-007	California Roach	34	0.35	11:35	Yes	1
GRC	2021.07.06	21-GRC-008	California Roach	28	0.23	11:35	Yes	1
GRC	2021.07.06	21-GRC-009	California Roach	27	0.27	11:35	Yes	1
GRC	2021.07.06	21-GRC-010	California Roach	29	0.31	11:35	Yes	1
GRC	2021.07.06	21-GRC-011	California Roach	29	0.28	11:35	Yes	1
GRC	2021.07.06	21-GRC-012	California Roach	27	0.27	11:35	Yes	1
GRC	2021.07.06	21-GRC-013	California Roach	27	0.26	11:35	Yes	1
GRC	2021.07.06	21-GRC-014	California Roach	28	0.27	11:35	Yes	1
GRC	2021.07.06	21-GRC-015	California Roach	29	0.29	11:35	Yes	1
GRC	2021.07.06	21-GRC-016	California Roach	27	0.22	11:35	Yes	1
GRC	2021.07.06	21-GRC-017	California Roach	42	0.84	11:35	Yes	1
GRC	2021.07.06	21-GRC-018	California Roach	39	0.74	11:35	Yes	1
GRC	2021.07.06	21-GRC-019	California Roach	42	0.89	11:35	Yes	1
GRC	2021.07.06	21-GRC-020	California Roach	43	0.99	11:35	Yes	1
GRC	2021.07.06	21-GRC-021	Sacramento sucker	30-50		11:35	No	58
GRC	2021.07.06	21-GRC-022	Prickly sculpin	120		11:35	No	1
GRC	2021.07.06	21-GRC-023	California Roach	22-24		11:35	No	4

2023 Fish Collection

Guadalupe Watershed - 2023 Collections for Mercury Testing

Site Codes		Species	All Days	2023.06.21	2023.06.22	2023.06.26
GCL	Los Gatos Creek	Prickly sculpin	15	11	2	2
GRF	Guadalupe River at Foxworthy	Sacramento sucker	88	51	24	13
GRC	Guadalupe River at Coleman	California Roach	140	67	71	0
LA - LAL	Lake Almaden	Largemouth bass	89	14	0	75
ACH	Alamitos Creek at Harry Road	Bluegill	5	0	0	5
ACG	Alamitos Creek at Graystone	Pumpkinseed	1	1	0	0
GC	Guadalupe Creek	Black crappie	1	1	0	0

Site Name	Date	Fish ID	Species	Length (mm)	Weight (g)	Mercury Analysis?	Number of Individuals
GCL	2023.06.21	23-GCL-001	California Roach	35	0.50	Yes	1
GCL	2023.06.21	23-GCL-002	California Roach	35	0.50	Yes	1
GCL	2023.06.21	23-GCL-003	California Roach	37	0.50	Yes	1
GCL	2023.06.21	23-GCL-004	California Roach	37	0.50	Yes	1
GCL	2023.06.21	23-GCL-005	California Roach	35	0.50	Yes	1
GCL	2023.06.21	23-GCL-006	California Roach	48	1.00	Yes	1
GCL	2023.06.21	23-GCL-007	California Roach	35	0.50	Yes	1
GCL	2023.06.21	23-GCL-008	California Roach	60	3.00	Yes	1
GCL	2023.06.21	23-GCL-009	California Roach	34	0.50	Yes	1
GCL	2023.06.21	23-GCL-010	California Roach	34	0.50	Yes	1
GCL	2023.06.21	23-GCL-011	California Roach	34	0.50	Yes	1
GCL	2023.06.21	23-GCL-012	California Roach	40	0.50	Yes	1
GCL	2023.06.21	23-GCL-013	California Roach	40	0.50	Yes	1
GCL	2023.06.21	23-GCL-014	California Roach	35	0.50	Yes	1
GCL	2023.06.21	23-GCL-015	California Roach	37	0.50	Yes	1
GCL	2023.06.21	23-GCL-016	California Roach	80	5.00	Yes	1
GCL	2023.06.21	23-GCL-017	California Roach	33	0.50	Yes	1
GCL	2023.06.21	23-GCL-018	California Roach	32	0.50	Yes	1
GCL	2023.06.21	23-GCL-019	California Roach	35	0.50	Yes	1
GCL	2023.06.21	23-GCL-020	California Roach	35	0.50	Yes	1
GCL	2023.06.21	23-GCL-021	Sacramento sucker	50		No	1
GCL	2023.06.21	23-GCL-022	Sacramento sucker	81		No	1
GCL	2023.06.21	23-GCL-023	Sacramento sucker	39		No	1
GCL	2023.06.21	23-GCL-024	Sacramento sucker	48		No	1
GCL	2023.06.21	23-GCL-025	Sacramento sucker	60		No	1
GCL	2023.06.21	23-GCL-026	Sacramento sucker	50		No	1

2023 Fish Collection

<u>Site Name</u>	<u>Date</u>	<u>Fish ID</u>	<u>Species</u>	<u>Length (mm)</u>	<u>Weight (g)</u>	<u>Mercury Analysis?</u>	<u>Number of Individuals</u>
GCL	2023.06.21	23-GCL-027	Prickly sculpin	55		No	1
GCL	2023.06.21	23-GCL-028	Prickly sculpin	64		No	1
GCL	2023.06.21	23-GCL-029	Prickly sculpin	55		No	1
GCL	2023.06.21	23-GCL-030	Prickly sculpin	45		No	1
GCL	2023.06.21	23-GCL-031	Prickly sculpin	55		No	1
GCL	2023.06.21	23-GCL-032	Sacramento sucker	60		No	1
GCL	2023.06.21	23-GCL-033	Sacramento sucker	58		No	1
GCL	2023.06.21	23-GCL-034	Sacramento sucker	65		No	1
GCL	2023.06.21	23-GCL-035	Prickly sculpin	64		No	1
GCL	2023.06.21	23-GCL-036	Sacramento sucker	50		No	1
GCL	2023.06.21	23-GCL-037	Sacramento sucker	64		No	1
GCL	2023.06.21	23-GCL-038	Prickly sculpin	55		No	1
GCL	2023.06.21	23-GCL-039	Sacramento sucker	65		No	1
GCL	2023.06.21	23-GCL-040	Prickly sculpin	55		No	1
GCL	2023.06.21	23-GCL-041	Sacramento sucker	55		No	1
GCL	2023.06.21	23-GCL-042	California Roach	70		No	1
GCL	2023.06.21	23-GCL-043	Prickly sculpin	65		No	1
GCL	2023.06.21	23-GCL-044	Sacramento sucker	75		No	1
GCL	2023.06.21	23-GCL-045	Prickly sculpin	53		No	1
GCL	2023.06.21	23-GCL-046	Sacramento sucker	45		No	1
GCL	2023.06.21	23-GCL-047	Sacramento sucker	59		No	1
GCL	2023.06.21	23-GCL-048	Prickly sculpin	54		No	1
GCL	2023.06.21	23-GCL-049	Sacramento sucker	50		No	1
GRC	2023.06.21	23-GRC-001	California Roach	33	0.25	Yes	1
GRC	2023.06.21	23-GRC-002	California Roach	31	0.25	Yes	1
GRC	2023.06.21	23-GRC-003	California Roach	30	0.25	Yes	1
GRC	2023.06.21	23-GRC-004	California Roach	30	0.25	Yes	1
GRC	2023.06.21	23-GRC-005	California Roach	33	0.25	Yes	1
GRC	2023.06.21	23-GRC-006	California Roach	28	0.25	Yes	1
GRC	2023.06.21	23-GRC-007	California Roach	31	0.25	Yes	1
GRC	2023.06.21	23-GRC-008	California Roach	29	0.25	Yes	1
GRC	2023.06.21	23-GRC-009	California Roach	29	0.25	Yes	1
GRC	2023.06.21	23-GRC-010	California Roach	29	0.25	Yes	1
GRC	2023.06.21	23-GRC-011	California Roach	28	0.25	Yes	1
GRC	2023.06.21	23-GRC-012	California Roach	27	0.25	Yes	1
GRC	2023.06.21	23-GRC-013	California Roach	26	0.25	Yes	1

2023 Fish Collection

<u>Site Name</u>	<u>Date</u>	<u>Fish ID</u>	<u>Species</u>	<u>Length (mm)</u>	<u>Weight (g)</u>	<u>Mercury Analysis?</u>	<u>Number of Individuals</u>
GRC	2023.06.21	23-GRC-014	California Roach	29	0.25	Yes	1
GRC	2023.06.21	23-GRC-015	California Roach	27	0.25	Yes	1
GRC	2023.06.21	23-GRC-016	California Roach	28	0.25	Yes	1
GRC	2023.06.21	23-GRC-017	California Roach	26	0.25	Yes	1
GRC	2023.06.21	23-GRC-018	California Roach	31	0.25	Yes	1
GRC	2023.06.21	23-GRC-019	California Roach	28	0.25	Yes	1
GRC	2023.06.21	23-GRC-020	California Roach	27	0.25	Yes	1
GRC	2023.06.21	23-GRC-021	California Roach	22		No	2
GRC	2023.06.21	23-GRC-022	California Roach	25		No	7
GRC	2023.06.21	23-GRC-023	California Roach	<20		No	15
GRF	2023.06.21	23-GRF-001	Black crappie	44	1.00	Yes	1
GRF	2023.06.21	23-GRF-002	California Roach	45	0.50	Yes	1
GRF	2023.06.21	23-GRF-003	Largemouth bass	45	0.50	Yes	1
GRF	2023.06.21	23-GRF-004	Largemouth bass	45	0.50	Yes	1
GRF	2023.06.21	23-GRF-005	Largemouth bass	45	0.50	Yes	1
GRF	2023.06.21	23-GRF-006	Largemouth bass	53	1.50	Yes	1
GRF	2023.06.21	23-GRF-007	Largemouth bass	60	2.50	Yes	1
GRF	2023.06.21	23-GRF-008	Largemouth bass	46	0.50	Yes	1
GRF	2023.06.21	23-GRF-009	Largemouth bass	55	1.50	Yes	1
GRF	2023.06.21	23-GRF-010	Largemouth bass	52	2.00	Yes	1
GRF	2023.06.21	23-GRF-011	Largemouth bass	44	1.00	Yes	1
GRF	2023.06.21	23-GRF-012	Largemouth bass	45	1.00	Yes	1
GRF	2023.06.21	23-GRF-013	Largemouth bass	45	1.00	Yes	1
GRF	2023.06.21	23-GRF-014	Largemouth bass	40	1.00	Yes	1
GRF	2023.06.21	23-GRF-015	Largemouth bass	51	1.00	Yes	1
GRF	2023.06.21	23-GRF-016	Largemouth bass	42	1.50	Yes	1
GRF	2023.06.21	23-GRF-017	California Roach	42	1.00	Yes	1
GRF	2023.06.21	23-GRF-018	Pumpkinseed	135		Yes	1
GRF	2023.06.21	23-GRF-019	Sacramento sucker	68		No	1
GRF	2023.06.21	23-GRF-020	Sacramento sucker	67		No	1
GRF	2023.06.21	23-GRF-021	Sacramento sucker	38		No	1
GRF	2023.06.21	23-GRF-022	Sacramento sucker	69		No	1
GRF	2023.06.21	23-GRF-023	Sacramento sucker	65		No	4
GRF	2023.06.21	23-GRF-024	Sacramento sucker	76		No	1
GRF	2023.06.21	23-GRF-025	Sacramento sucker	90		No	1
GRF	2023.06.21	23-GRF-026	Sacramento sucker	70		No	3

2023 Fish Collection

<u>Site Name</u>	<u>Date</u>	<u>Fish ID</u>	<u>Species</u>	<u>Length (mm)</u>	<u>Weight (g)</u>	<u>Mercury Analysis?</u>	<u>Number of Individuals</u>
GRF	2023.06.21	23-GRF-027	Sacramento sucker	72		No	1
GRF	2023.06.21	23-GRF-028	Sacramento sucker	60		No	1
GRF	2023.06.21	23-GRF-029	Sacramento sucker	45		No	6
GRF	2023.06.21	23-GRF-030	Sacramento sucker	80		No	1
GRF	2023.06.21	23-GRF-031	Sacramento sucker	55		No	5
GRF	2023.06.21	23-GRF-032	Sacramento sucker	50		No	4
GRF	2023.06.21	23-GRF-033	Sacramento sucker	40		No	1
GRF	2023.06.21	23-GRF-034	Sacramento sucker	73		No	1
GRF	2023.06.21	23-GRF-035	Sacramento sucker	47		No	1
ACG	2023.06.22	23-ACG-001	California Roach	27	0.25	Yes	1
ACG	2023.06.22	23-ACG-002	California Roach	29	0.20	Yes	1
ACG	2023.06.22	23-ACG-003	California Roach	25	0.20	Yes	1
ACG	2023.06.22	23-ACG-004	California Roach	28	0.30	Yes	1
ACG	2023.06.22	23-ACG-005	California Roach	30	0.30	Yes	1
ACG	2023.06.22	23-ACG-006	California Roach	27	0.20	Yes	1
ACG	2023.06.22	23-ACG-007	California Roach	29	0.30	Yes	1
ACG	2023.06.22	23-ACG-008	California Roach	25	0.20	Yes	1
ACG	2023.06.22	23-ACG-009	California Roach	27	0.20	Yes	1
ACG	2023.06.22	23-ACG-010	California Roach	25	0.20	Yes	1
ACG	2023.06.22	23-ACG-011	California Roach	25	0.20	Yes	1
ACG	2023.06.22	23-ACG-012	California Roach	25	0.20	Yes	1
ACG	2023.06.22	23-ACG-013	California Roach	26	0.20	Yes	1
ACG	2023.06.22	23-ACG-014	California Roach	29	0.30	Yes	1
ACG	2023.06.22	23-ACG-015	California Roach	25	0.20	Yes	1
ACG	2023.06.22	23-ACG-016	California Roach	28	0.30	Yes	1
ACG	2023.06.22	23-ACG-017	California Roach	28	0.30	Yes	1
ACG	2023.06.22	23-ACG-018	California Roach	26	0.20	Yes	1
ACG	2023.06.22	23-ACG-019	California Roach	25	0.20	Yes	1
ACG	2023.06.22	23-ACG-020	California Roach	25	0.20	Yes	1
ACG	2023.06.22	23-ACG-021	Sacramento sucker	75		No	1
ACG	2023.06.22	23-ACG-022	Prickly sculpin	50		No	1
ACG	2023.06.22	23-ACG-023	Sacramento sucker	58		No	1
ACG	2023.06.22	23-ACG-024	Sacramento sucker	49		No	1
ACG	2023.06.22	23-ACG-025	Sacramento sucker	45		No	1
ACG	2023.06.22	23-ACG-026	Prickly sculpin	51		No	1
ACG	2023.06.22	23-ACG-027	Sacramento sucker	30		No	15

2023 Fish Collection

<u>Site Name</u>	<u>Date</u>	<u>Fish ID</u>	<u>Species</u>	<u>Length (mm)</u>	<u>Weight (g)</u>	<u>Mercury Analysis?</u>	<u>Number of Individuals</u>
ACG	2023.06.22	23-ACG-028	Larval Sacramento Sucker	<25		No	20
ACG	2023.06.22	23-ACG-029	Larval California Roach	<25		No	20
ACH	2023.06.22	23-ACH-001	California Roach	43	1.10	Yes	1
ACH	2023.06.22	23-ACH-002	California Roach	39	0.60	Yes	1
ACH	2023.06.22	23-ACH-003	California Roach	52	1.70	Yes	1
ACH	2023.06.22	23-ACH-004	California Roach	49	1.50	Yes	1
ACH	2023.06.22	23-ACH-005	California Roach	45	1.10	Yes	1
ACH	2023.06.22	23-ACH-006	California Roach	54	1.90	Yes	1
ACH	2023.06.22	23-ACH-007	California Roach	52	2.20	Yes	1
ACH	2023.06.22	23-ACH-008	California Roach	50	1.90	Yes	1
ACH	2023.06.22	23-ACH-009	California Roach	44	0.90	Yes	1
ACH	2023.06.22	23-ACH-010	California Roach	64	3.50	Yes	1
ACH	2023.06.22	23-ACH-011	California Roach	55	2.80	Yes	1
ACH	2023.06.22	23-ACH-012	California Roach	52	2.10	Yes	1
ACH	2023.06.22	23-ACH-013	California Roach	64	3.30	Yes	1
ACH	2023.06.22	23-ACH-014	California Roach	55	2.70	Yes	1
ACH	2023.06.22	23-ACH-015	California Roach	50	1.70	Yes	1
ACH	2023.06.22	23-ACH-016	California Roach	61	3.30	Yes	1
ACH	2023.06.22	23-ACH-017	California Roach	51	2.00	Yes	1
ACH	2023.06.22	23-ACH-018	California Roach	46	1.40	Yes	1
ACH	2023.06.22	23-ACH-019	California Roach	61	2.70	Yes	1
ACH	2023.06.22	23-ACH-020	California Roach	44	1.00	Yes	1
ACH	2023.06.22	23-ACH-021	California Roach	10		No	4
ACH	2023.06.22	23-ACH-022	Sacramento sucker	40		No	1
ACH	2023.06.22	23-ACH-023	California Roach	66		No	1
ACH	2023.06.22	23-ACH-024	Sacramento sucker	48		No	1
ACH	2023.06.22	23-ACH-025	Sacramento sucker	92		No	1
ACH	2023.06.22	23-ACH-026	California Roach	82		No	1
ACH	2023.06.22	23-ACH-027	Sacramento sucker	40		No	1
ACH	2023.06.22	23-ACH-028	Sacramento sucker	35		No	1
GC	2023.06.22	23-GC-001	California Roach	34	0.60	Yes	1
GC	2023.06.22	23-GC-002	California Roach	34	0.70	Yes	1
GC	2023.06.22	23-GC-003	California Roach	31	0.70	Yes	1
GC	2023.06.22	23-GC-004	California Roach	36	0.80	Yes	1
GC	2023.06.22	23-GC-005	California Roach	39	1.20	Yes	1
GC	2023.06.22	23-GC-006	California Roach	36	1.10	Yes	1

2023 Fish Collection

<u>Site Name</u>	<u>Date</u>	<u>Fish ID</u>	<u>Species</u>	<u>Length (mm)</u>	<u>Weight (g)</u>	<u>Mercury Analysis?</u>	<u>Number of Individuals</u>
GC	2023.06.22	23-GC-007	California Roach	32	0.70	Yes	1
GC	2023.06.22	23-GC-008	California Roach	32	0.70	Yes	1
GC	2023.06.22	23-GC-009	California Roach	38	1.10	Yes	1
GC	2023.06.22	23-GC-010	California Roach	38	1.10	Yes	1
GC	2023.06.22	23-GC-011	California Roach	30	0.70	Yes	1
GC	2023.06.22	23-GC-012	California Roach	34	0.80	Yes	1
GC	2023.06.22	23-GC-013	California Roach	35	0.80	Yes	1
GC	2023.06.22	23-GC-014	California Roach	31	0.50	Yes	1
GC	2023.06.22	23-GC-015	California Roach	42	1.30	Yes	1
GC	2023.06.22	23-GC-016	California Roach	41	1.10	Yes	1
GC	2023.06.22	23-GC-017	California Roach	41	1.20	Yes	1
GC	2023.06.22	23-GC-018	California Roach	38	1.00	Yes	1
GC	2023.06.22	23-GC-019	California Roach	38	1.00	Yes	1
GC	2023.06.22	23-GC-020	California Roach	30	0.40	Yes	1
GC	2023.06.22	23-GC-021	California Roach	27		No	1
GC	2023.06.22	23-GC-022	California Roach	39		No	1
GC	2023.06.22	23-GC-023	California Roach	35		No	1
GC	2023.06.22	23-GC-024	California Roach	31		No	1
GC	2023.06.22	23-GC-025	California Roach	31		No	1
GC	2023.06.23	23-GC-026	California Roach	33		No	1
GC	2023.06.23	23-GC-027	California Roach	27		No	1
LA	2023.06.26	23-LA-001	Largemouth bass	72	5.20	Yes	1
LA	2023.06.26	23-LA-002	Largemouth bass	88	11.40	Yes	1
LA	2023.06.26	23-LA-003	Largemouth bass	82	8.40	Yes	1
LA	2023.06.26	23-LA-004	Largemouth bass	85	8.80	Yes	1
LA	2023.06.26	23-LA-005	Largemouth bass	76	6.50	Yes	1
LA	2023.06.26	23-LA-006	Largemouth bass	64	3.00	Yes	1
LA	2023.06.26	23-LA-007	Largemouth bass	82	7.80	Yes	1
LA	2023.06.26	23-LA-008	Largemouth bass	65	3.90	Yes	1
LA	2023.06.26	23-LA-009	Largemouth bass	71	5.30	Yes	1
LA	2023.06.26	23-LA-010	Largemouth bass	77	6.70	Yes	1
LA	2023.06.26	23-LA-011	Largemouth bass	83	8.60	Yes	1
LA	2023.06.26	23-LA-012	Largemouth bass	61	3.00	Yes	1
LA	2023.06.26	23-LA-013	Largemouth bass	69	4.90	Yes	1
LA	2023.06.26	23-LA-014	Largemouth bass	86	9.20	Yes	1
LA	2023.06.26	23-LA-015	Largemouth bass	66	4.10	Yes	1

2023 Fish Collection

<u>Site Name</u>	<u>Date</u>	<u>Fish ID</u>	<u>Species</u>	<u>Length (mm)</u>	<u>Weight (g)</u>	<u>Mercury Analysis?</u>	<u>Number of Individuals</u>
LA	2023.06.26	23-LA-016	Largemouth bass	72	5.30	Yes	1
LA	2023.06.26	23-LA-017	Largemouth bass	61	2.90	Yes	1
LA	2023.06.26	23-LA-018	Largemouth bass	64	3.70	Yes	1
LA	2023.06.26	23-LA-019	Largemouth bass	68	4.50	Yes	1
LA	2023.06.26	23-LA-020	Largemouth bass	72	5.70	Yes	1
LA	2023.06.26	23-LA-021	Sacramento sucker	80		No	1
LA	2023.06.26	23-LA-022	Sacramento sucker	72		No	1
LA	2023.06.26	23-LA-023	Largemouth bass	47		No	1
LA	2023.06.26	23-LA-024	Largemouth bass	50		No	1
LA	2023.06.26	23-LA-025	Largemouth bass	44		No	1
LA	2023.06.26	23-LA-026	Largemouth bass	35		No	1
LA	2023.06.26	23-LA-027	Bluegill	61		No	1
LA	2023.06.26	23-LA-028	Largemouth bass	53		No	1
LA	2023.06.26	23-LA-029	Largemouth bass	47		No	1
LA	2023.06.26	23-LA-030	Largemouth bass	40		No	1
LA	2023.06.26	23-LA-031	Largemouth bass	40		No	1
LA	2023.06.26	23-LA-032	Largemouth bass	40		No	1
LA	2023.06.26	23-LA-033	Sacramento sucker	85		No	1
LA	2023.06.26	23-LA-034	Sacramento sucker	65		No	1
LA	2023.06.26	23-LA-035	Largemouth bass	44		No	1
LA	2023.06.26	23-LA-036	Sacramento sucker	62		No	1
LA	2023.06.26	23-LA-037	Largemouth bass	43		No	1
LA	2023.06.26	23-LA-038	Largemouth bass	39		No	1
LA	2023.06.26	23-LA-039	Largemouth bass	39		No	1
LA	2023.06.26	23-LA-040	Sacramento sucker	72		No	1
LA	2023.06.26	23-LA-041	Largemouth bass	60		No	1
LA	2023.06.26	23-LA-042	Largemouth bass	60		No	1
LA	2023.06.26	23-LA-043	Largemouth bass	55		No	1
LA	2023.06.26	23-LA-044	Largemouth bass	55		No	1
LA	2023.06.26	23-LA-045	Largemouth bass	52		No	1
LA	2023.06.26	23-LA-046	Largemouth bass	50		No	1
LA	2023.06.26	23-LA-047	Largemouth bass	52		No	1
LA	2023.06.26	23-LA-048	Largemouth bass	31		No	1
LA	2023.06.26	23-LA-049	Largemouth bass	44		No	1
LA	2023.06.26	23-LA-050	Bluegill	46		No	1
LA	2023.06.26	23-LA-051	Largemouth bass	54		No	1

2023 Fish Collection

<u>Site Name</u>	<u>Date</u>	<u>Fish ID</u>	<u>Species</u>	<u>Length (mm)</u>	<u>Weight (g)</u>	<u>Mercury Analysis?</u>	<u>Number of Individuals</u>
LA	2023.06.26	23-LA-052	Largemouth bass	44		No	1
LA	2023.06.26	23-LA-053	Largemouth bass	57		No	1
LA	2023.06.26	23-LA-054	Largemouth bass	54		No	1
LA	2023.06.26	23-LA-055	Largemouth bass	57		No	1
LA	2023.06.26	23-LA-056	Bluegill	56		No	1
LA	2023.06.26	23-LA-057	Largemouth bass	43		No	1
LA	2023.06.26	23-LA-058	Largemouth bass	44		No	1
LA	2023.06.26	23-LA-059	Largemouth bass	32		No	1
LA	2023.06.26	23-LA-060	Largemouth bass	41		No	1
LA	2023.06.26	23-LA-061	Largemouth bass	40		No	1
LA	2023.06.26	23-LA-062	Largemouth bass	37		No	1
LA	2023.06.26	23-LA-063	Sacramento sucker	62		No	1
LA	2023.06.26	23-LA-064	Largemouth bass	42		No	1
LA	2023.06.26	23-LA-065	Largemouth bass	55		No	1
LA	2023.06.26	23-LA-066	Sacramento sucker	70		No	1
LA	2023.06.26	23-LA-067	Largemouth bass	50		No	1
LA	2023.06.26	23-LA-068	Largemouth bass	50		No	1
LA	2023.06.26	23-LA-069	Largemouth bass	35		No	1
LA	2023.06.26	23-LA-070	Largemouth bass	50		No	1
LA	2023.06.26	23-LA-071	Largemouth bass	53		No	1
LA	2023.06.26	23-LA-072	Largemouth bass	71		No	1
LA	2023.06.26	23-LA-073	Largemouth bass	43		No	1
LA	2023.06.26	23-LA-074	Largemouth bass	42		No	1
LA	2023.06.26	23-LA-075	Largemouth bass	38		No	1
LA	2023.06.26	23-LA-076	Largemouth bass	61		No	1
LA	2023.06.26	23-LA-077	Bluegill	45		No	1
LA	2023.06.26	23-LA-078	Sacramento sucker	70		No	1
LA	2023.06.26	23-LA-079	Sacramento sucker	70		No	1
LA	2023.06.26	23-LA-080	Largemouth bass	52		No	1
LA	2023.06.26	23-LA-081	Largemouth bass	46		No	1
LA	2023.06.26	23-LA-082	Largemouth bass	55		No	1
LA	2023.06.26	23-LA-083	Largemouth bass	60		No	1
LA	2023.06.26	23-LA-084	Sacramento sucker	55		No	1
LA	2023.06.26	23-LA-085	Largemouth bass	42		No	1
LA	2023.06.26	23-LA-086	Largemouth bass	50		No	1
LA	2023.06.26	23-LA-087	Largemouth bass	42		No	1

2023 Fish Collection

<u>Site Name</u>	<u>Date</u>	<u>Fish ID</u>	<u>Species</u>	<u>Length (mm)</u>	<u>Weight (g)</u>	<u>Mercury Analysis?</u>	<u>Number of Individuals</u>
LA	2023.06.26	23-LA-088	Bluegill	40		No	1
LA	2023.06.26	23-LA-089	Prickly sculpin	35		No	1
LA	2023.06.26	23-LA-090	Sacramento sucker	64		No	1
LA	2023.06.26	23-LA-091	Largemouth bass	67		No	1
LA	2023.06.26	23-LA-092	Prickly sculpin	32		No	1
LA	2023.06.26	23-LA-093	Largemouth bass	51		No	1
LA	2023.06.26	23-LA-094	Largemouth bass	38		No	1
LA	2023.06.26	23-LA-095	Sacramento sucker	60		No	1

APPENDIX D FISH TISSUE ANALYTICAL LABORATORY REPORTS



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400
Bothell, WA 98011
425.686.1996 Phone
425.686.3096 Fax

29 January 2020

Theodore E. Donn, Jr, PhD
Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette, CA 94549
RE: Guadalupe River

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

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

Sincerely,

A handwritten signature in black ink that reads "Patrick Strickland". The signature is written in a cursive, flowing style.

Patrick Garcia-Strickland
Business Unit Manager



Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
19-GCR-06	9K00070-01	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-07	9K00070-02	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-08	9K00070-03	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-09	9K00070-04	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-10	9K00070-05	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-11	9K00070-06	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-12	9K00070-07	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-13	9K00070-08	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-14	9K00070-09	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-15	9K00070-10	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-16	9K00070-11	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-17	9K00070-12	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-18	9K00070-13	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-19	9K00070-14	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GCR-20	9K00070-15	Tissue	16-Oct-19 09:00	07-Nov-19 17:30
19-GRC-01	9K00070-16	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-02	9K00070-17	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-03	9K00070-18	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-04	9K00070-19	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-05	9K00070-20	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-06	9K00070-21	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-07	9K00070-22	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-08	9K00070-23	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-09	9K00070-24	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-10	9K00070-25	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-11	9K00070-26	Tissue	17-Oct-19 12:00	07-Nov-19 17:30

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Patrick Garcia-Strickland, Business Unit Manager

Page 2 of 119

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
19-GRC-12	9K00070-27	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-13	9K00070-28	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-14	9K00070-29	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-15	9K00070-30	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-16	9K00070-31	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-17	9K00070-32	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-18	9K00070-33	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-19	9K00070-34	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GRC-20	9K00070-35	Tissue	17-Oct-19 12:00	07-Nov-19 17:30
19-GCL-01	9K00070-36	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-02	9K00070-37	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-03	9K00070-38	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-04	9K00070-39	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-05	9K00070-40	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-06	9K00070-41	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-07	9K00070-42	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-08	9K00070-43	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-09	9K00070-44	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-10	9K00070-45	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-11	9K00070-46	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-12	9K00070-47	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-13	9K00070-48	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-14	9K00070-49	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-GCL-15	9K00070-50	Tissue	29-Oct-19 01:00	07-Nov-19 17:30
19-LAL-01	9K00070-51	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-02	9K00070-52	Tissue	29-Oct-19 03:00	07-Nov-19 17:30

Eurofins Frontier Global Sciences, LLC

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Patrick Garcia-Strickland, Business Unit Manager



Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
19-LAL-03	9K00070-53	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-04	9K00070-54	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-05	9K00070-55	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-06	9K00070-56	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-07	9K00070-57	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-08	9K00070-58	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-09	9K00070-59	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-10	9K00070-60	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-11	9K00070-61	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-12	9K00070-62	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-13	9K00070-63	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-14	9K00070-64	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-15	9K00070-65	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-16	9K00070-66	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-17	9K00070-67	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-18	9K00070-68	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-19	9K00070-69	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-LAL-20	9K00070-70	Tissue	29-Oct-19 03:00	07-Nov-19 17:30
19-GRF-01	9K00070-71	Tissue	29-Oct-19 08:00	07-Nov-19 17:30
19-GRF-02	9K00070-72	Tissue	29-Oct-19 08:00	07-Nov-19 17:30
19-GRF-03	9K00070-73	Tissue	29-Oct-19 08:00	07-Nov-19 17:30
19-GRF-04	9K00070-74	Tissue	29-Oct-19 08:00	07-Nov-19 17:30
19-GRF-05	9K00070-75	Tissue	29-Oct-19 08:00	07-Nov-19 17:30
19-GRF-06	9K00070-76	Tissue	29-Oct-19 08:00	07-Nov-19 17:30
19-GRF-07	9K00070-77	Tissue	29-Oct-19 08:00	07-Nov-19 17:30
19-GCR-01	9K00070-78	Tissue	22-Aug-19 11:00	07-Nov-19 17:30

Eurofins Frontier Global Sciences, LLC

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Patrick Garcia-Strickland, Business Unit Manager



Frontier Global Sciences

5755 8th Street East
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Phone: (253) 922-2310

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
19-GCR-02	9K00070-79	Tissue	22-Aug-19 11:00	07-Nov-19 17:30
19-GCR-03	9K00070-80	Tissue	22-Aug-19 11:00	07-Nov-19 17:30
19-GCR-04	9K00070-81	Tissue	22-Aug-19 11:00	07-Nov-19 17:30
19-GCR-05	9K00070-82	Tissue	22-Aug-19 11:00	07-Nov-19 17:30
19-ACR-01	9K00070-83	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-02	9K00070-84	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-03	9K00070-85	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-04	9K00070-86	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-05	9K00070-87	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-06	9K00070-88	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-07	9K00070-89	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-08	9K00070-90	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-09	9K00070-91	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-10	9K00070-92	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-11	9K00070-93	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-12	9K00070-94	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-13	9K00070-95	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-14	9K00070-96	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-15	9K00070-97	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-16	9K00070-98	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-17	9K00070-99	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-18	9K00070-AA	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-19	9K00070-AB	Tissue	22-Aug-19 08:00	07-Nov-19 17:30
19-ACR-20	9K00070-AC	Tissue	22-Aug-19 08:00	07-Nov-19 17:30

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Patrick Garcia-Strickland, Business Unit Manager



Frontier Global Sciences

5755 8th Street East
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Phone: (253) 922-2310

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 07-Nov-19 17:30. The samples were received intact, on-ice within a sealed cooler at

Cooler	Temp C°
Default Cooler	-19.0

SAMPLE PREPARATION AND ANALYSIS

Total mercury preparation and analysis was performed by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631B.

ANALYTICAL AND QUALITY CONTROL ISSUES

Method blanks were prepared for every preparation to assess possible blank contribution from the sample preparation procedure. The method blanks were carried through the entire analytical procedure. All blanks fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

Liquid spikes, certified reference material (CRM) or a quality control samples (QCS) were prepared for every preparation as a measure of accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

A reasonable measure of the precision of the analytical methods is the relative percent difference (RPD) between a matrix spike recovery and a matrix spike duplicate recovery and between laboratory control sample recovery and laboratory control sample duplicate recoveries. All of the relative percent differences fell within established acceptance criteria with the exception of any items flagged and described in the notes and definitions section of the report.

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Sample Receipt Checklist

Client: Tetra TechDate & Time Received: 11/7/19 11:30Date Labeled: 11/11/19 Labeled By: [Signature]Matrix: TissueReceived By: MFSLabel Verified By: [Signature]# of Coolers Received: 1Samples Arrived By: ☒ Shipping Service _____ Courier _____ Hand _____ Other (Specify: _____)Coolant: ☐ None/Ambient ☐ Loose Ice ☐ Gel Ice ☒ Dry Ice Coolant Required: (Y/N) Temp Blank Used: (Y/N) for Cooler(s): _____

Notify Project Manager if packages/coolers are received without coolant or with thawed coolant and at a temperature in excess of 6°C. PM notified: Y/N

Samples from Wisconsin have special requirements. Shipment received includes samples from Wisconsin: (Y/N)

Cooler Information:	Y/N/NA	Comments
The coolers do not appear to be tampered with:	<u>Y</u>	
Custody Seals are present and intact:	<u>N</u>	
Custody seals signed:	<u>N</u>	

TID: <u>1130804</u> CF: <u>108</u> °C	Date/time: <u>11/7/19 1200</u>	By: <u>MFS</u>
Cooler 1: <u>-19.8</u> °C w/ CF: <u>-19</u> °C	Cooler 4: _____ °C w/ CF: _____ °C	
Cooler 2: _____ °C w/ CF: _____ °C	Cooler 5: _____ °C w/ CF: _____ °C	
Cooler 3: _____ °C w/ CF: _____ °C	Cooler 6: _____ °C w/ CF: _____ °C	

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>N</u>	
Preservation type:	<u>Y</u>	
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>N</u>	

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:	<u>Y</u>	
Sample labels are present and legible:	<u>Y</u>	
Sample ID on container/bag matches COC:	<u>Y</u>	
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>NA</u>	

Anomalies/Non-conformances (attach additional pages if needed):

9K00070



CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech
3746 Mt. Diablo Blvd.
Lafayette, CA
ted.donn@tetratech.com

Ship To:
Amy Goodall
eurofins-Frontier Global Sciences
5755 8th Street E
Tacoma, WA 98424
USA

9160070

General Notes:
Please report all results to the MDL, J-flag results between MDL and RL
Please report results and invoice separately for each Project ID
Please report results in pdf format with Excel EDD deliverable

Method1					Method2				
Project	SampleID	Medium	Date	Time	Preservation	Hg-CVAFS-T-7030	Homogenize-T	Comments	
T38272	19-ACR-01	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-02	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-03	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-04	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-05	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-06	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-07	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-08	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-09	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-10	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-11	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-12	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-13	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-14	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-15	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-16	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-17	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-18	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-19	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-ACR-20	Tissue	22-Aug-2019	8:45	Freeze	1	1		
T38272	19-GCR-01	Tissue	22-Aug-2019	11:55	Freeze	1	1		
T38272	19-GCR-02	Tissue	22-Aug-2019	11:55	Freeze	1	1		
T38272	19-GCR-03	Tissue	22-Aug-2019	11:55	Freeze	1	1		
T38272	19-GCR-04	Tissue	22-Aug-2019	11:55	Freeze	1	1		
T38272	19-GCR-05	Tissue	22-Aug-2019	11:55	Freeze	1	1		
T38272	19-GCR-06	Tissue	22-Aug-2019	11:55	Freeze	1	1		
T38272	19-GCR-07	Tissue	16-Oct-2019	9:03	Freeze	1	1		
T38272	19-GCR-08	Tissue	16-Oct-2019	9:03	Freeze	1	1		
T38272	19-GCR-09	Tissue	16-Oct-2019	9:03	Freeze	1	1		
T38272	19-GCR-10	Tissue	16-Oct-2019	9:03	Freeze	1	1		
T38272	19-GCR-11	Tissue	16-Oct-2019	9:03	Freeze	1	1		

Relinquished by: *Stewart DesMeules* *Shipped*
WRA, Inc, 2169-G 11/06/19
Francisco Blvd E.
San Rafael, CA 94901
MSD J. Remy
EFGS 11/19/19
-19-06 MFS

Relinquished by:

Received by:

FedEx 7807 8235 2550

Ship To:
Amy Goodall
eurofins-Frontier Global Sciences
5755 8th Street E
Tacoma, WA 98424
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech
3746 Mt. Diablo Blvd.
Lafayette, CA
ted.donn@tetratech.com

Project	SampleID	Medium	Date	Time	Preservation	Hg-CVAFS-T-7030	Homogenize-T	Comments
T38272	19-GCL-01	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-02	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-03	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-04	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-05	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-06	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-07	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-08	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-09	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-10	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-11	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-12	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-13	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-14	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-GCL-15	Tissue	29-Oct-2019	13:45	Freeze	1	1	
T38272	19-LAL-01	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-02	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-03	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-04	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-05	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-06	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-07	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-08	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-09	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-10	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-11	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-12	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-13	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-14	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-15	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-16	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-17	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-18	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-19	Tissue	29-Oct-2019	15:00	Freeze	1	1	
T38272	19-LAL-20	Tissue	29-Oct-2019	15:00	Freeze	1	1	



Relinquished by:

Relinquished by:

Received by:

Received by:



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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-06

9K00070-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	352	4.10	36.6	ng/g	1000	F912275	27-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-07

9K00070-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	336	3.18	28.4	ng/g	1000	F912275	27-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Tetra Tech, Inc. Lafayette
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Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-08

9K00070-03

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	408	4.28	38.2	ng/g	1000	F912275	27-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-09

9K00070-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	348	4.44	39.6	ng/g	1000	F912275	27-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-10

9K00070-05

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	403	4.09	36.5	ng/g	1000	F912275	27-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Tetra Tech, Inc. Lafayette
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Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-11

9K00070-06

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	546	3.83	34.2	ng/g	1000	F912275	27-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Patrick Garcia-Strickland, Business Unit Manager

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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-12

9K00070-07

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	232	5.20	46.4	ng/g	1000	F912275	27-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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5755 8th Street East
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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-13

9K00070-08

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	408	3.75	33.4	ng/g	1000	F912275	27-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-14

9K00070-09

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	419	4.21	37.6	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	

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Patrick Garcia-Strickland, Business Unit Manager

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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-15

9K00070-10

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	512	3.55	31.7	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	

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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-16

9K00070-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	221	4.27	38.2	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	

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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-17

9K00070-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	326	4.12	36.8	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-18

9K00070-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	436	3.51	31.3	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-19

9K00070-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	395	4.06	36.2	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-20

9K00070-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	284	3.84	34.3	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-01

9K00070-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	44.1	4.11	36.7	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	

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Reported:
29-Jan-20 10:41

19-GRC-02

9K00070-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	50.9	0.325	2.91	ng/g	100	F912265	26-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Reported:
29-Jan-20 10:41

19-GRC-03

9K00070-18

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	51.5	0.369	3.30	ng/g	100	F912265	26-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
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Reported:
29-Jan-20 10:41

19-GRC-04

9K00070-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	45.9	0.424	3.79	ng/g	100	F912265	26-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Reported:
29-Jan-20 10:41

19-GRC-05

9K00070-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	82.4	3.91	131	ng/g	1000	F912275	27-Dec-19	0A28009	27-Jan-20	EPA 1631B	J

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-06

9K00070-21

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	48.9	0.411	3.67	ng/g	100	F912265	26-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-07

9K00070-22

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	47.0	0.364	3.25	ng/g	100	F912265	26-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-08

9K00070-23

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	52.8	0.367	3.28	ng/g	100	F912265	26-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-09

9K00070-24

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	60.3	0.435	3.89	ng/g	100	F912265	26-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-10

9K00070-25

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	83.0	4.25	38.0	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-11

9K00070-26

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	75.8	0.328	2.93	ng/g	100	F912265	26-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-12

9K00070-27

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	35.6	4.24	37.8	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	J

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-13

9K00070-28

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	42.3	0.443	3.95	ng/g	100	F912265	26-Dec-19	0A28012	24-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-14

9K00070-29

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	41.9	4.14	37.0	ng/g	1000	F912265	26-Dec-19	0A23002	22-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-15

9K00070-30

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	41.1	3.89	34.7	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-16

9K00070-31

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	52.7	3.36	30.0	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRC-17

9K00070-32

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	44.0	4.06	36.3	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project Number: T38272
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Reported:
29-Jan-20 10:41

19-GRC-18

9K00070-33

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	67.1	3.71	33.2	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Reported:
29-Jan-20 10:41

19-GRC-19

9K00070-34

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	65.7	3.70	33.1	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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29-Jan-20 10:41

19-GRC-20

9K00070-35

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	54.0	3.93	35.1	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Reported:
29-Jan-20 10:41

19-GCL-01

9K00070-36

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	70.7	4.32	38.6	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Reported:
29-Jan-20 10:41

19-GCL-02

9K00070-37

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	50.0	3.70	33.0	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project Number: T38272
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Reported:
29-Jan-20 10:41

19-GCL-03

9K00070-38

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	68.0	3.95	35.2	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-04

9K00070-39

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	55.0	3.24	28.9	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-05

9K00070-40

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	51.3	4.03	35.9	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-06

9K00070-41

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	43.5	3.83	34.2	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-07

9K00070-42

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	52.6	3.75	33.5	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-08

9K00070-43

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	41.5	4.40	39.2	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-09

9K00070-44

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	53.4	4.11	36.7	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-10

9K00070-45

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	54.1	3.32	29.6	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-11

9K00070-46

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	46.5	3.77	33.6	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-12

9K00070-47

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	92.5	3.16	28.2	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-13

9K00070-48

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	37.0	3.53	31.5	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-14

9K00070-49

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	40.2	4.19	37.4	ng/g	1000	F912252	23-Dec-19	0A28011	23-Jan-20	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCL-15

9K00070-50

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	76.3	4.28	38.2	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-01

9K00070-51

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	1030	3.94	35.2	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-02

9K00070-52

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	869	3.32	29.6	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-03

9K00070-53

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	1200	3.17	28.3	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-04

9K00070-54

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	653	4.16	37.1	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-05

9K00070-55

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	795	3.68	32.9	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-06

9K00070-56

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	1300	4.14	36.9	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-07

9K00070-57

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	1220	4.05	36.2	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-08

9K00070-58

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	1410	3.90	34.9	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-09

9K00070-59

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	910	4.01	35.8	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-10

9K00070-60

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	655	3.24	29.0	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-11

9K00070-61

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	705	3.54	31.6	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-12

9K00070-62

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	967	3.19	28.5	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-13

9K00070-63

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	1720	3.83	34.2	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-14

9K00070-64

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	805	2.96	26.4	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-15

9K00070-65

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	1230	4.40	39.3	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-16

9K00070-66

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	1010	4.22	37.6	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-17

9K00070-67

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	861	3.16	28.2	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-18

9K00070-68

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	755	3.09	27.6	ng/g	1000	F912199	12-Dec-19	9L13005	13-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-19

9K00070-69

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	497	3.26	29.1	ng/g	1000	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-LAL-20

9K00070-70

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	606	4.39	39.2	ng/g	1000	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRF-01

9K00070-71

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	81.2	0.444	3.96	ng/g	100	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRF-02

9K00070-72

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	194	0.434	3.87	ng/g	100	F911246	27-Nov-19	9L05005	04-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRF-03

9K00070-73

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	162	0.430	3.84	ng/g	100	F911246	27-Nov-19	9L05005	04-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRF-04

9K00070-74

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	197	0.448	4.00	ng/g	100	F911246	27-Nov-19	9L05005	04-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRF-05

9K00070-75

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	134	0.437	3.90	ng/g	100	F911246	27-Nov-19	9L05005	04-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRF-06

9K00070-76

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	174	0.317	2.83	ng/g	100	F911246	27-Nov-19	9L05005	04-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GRF-07

9K00070-77

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	270	0.416	3.71	ng/g	100	F911246	27-Nov-19	9L05005	04-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-01

9K00070-78

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	188	2.01	17.9	ng/g	100	F911246	27-Nov-19	9L05005	04-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-02

9K00070-79

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	256	0.580	5.18	ng/g	100	F911246	27-Nov-19	9L05005	04-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-03

9K00070-80

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	281	0.427	3.82	ng/g	100	F911246	27-Nov-19	9L05005	04-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-04

9K00070-81

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	507	4.37	39.0	ng/g	1000	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-GCR-05

9K00070-82

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	335	4.05	36.1	ng/g	1000	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-01

9K00070-83

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	353	3.67	32.8	ng/g	1000	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-02

9K00070-84

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	ND	4.38	39.1	ng/g	1000	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	U

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-03

9K00070-85

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	377	4.80	42.8	ng/g	1000	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-04

9K00070-86

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	917	3.62	32.4	ng/g	1000	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-05

9K00070-87

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	957	3.94	35.2	ng/g	1000	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-06

9K00070-88

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	297	0.461	4.12	ng/g	100	F911246	27-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-07

9K00070-89

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	674	6.35	56.7	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-08

9K00070-90

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	803	6.14	54.8	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-09

9K00070-91

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	704	4.27	38.1	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-10

9K00070-92

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	559	4.39	39.2	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-11

9K00070-93

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	389	4.90	43.7	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Tetra Tech, Inc. Lafayette
3746 Mt. Diablo Blvd., Suite 300
Lafayette CA, 94549

Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-12

9K00070-94

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	641	4.43	39.6	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-13

9K00070-95

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	505	1.24	11.0	ng/g	100	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-14

9K00070-96

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	527	1.44	12.9	ng/g	100	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-15

9K00070-97

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	481	3.80	33.9	ng/g	100	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-16

9K00070-98

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	487	4.29	38.3	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-17

9K00070-99

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	946	4.47	39.9	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-18

9K00070-AA

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	586	5.40	48.2	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

19-ACR-19

9K00070-AB

Analyte	Detection		Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
	Result	Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	492	5.36	47.9	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Reported:
29-Jan-20 10:41

19-ACR-20

9K00070-AC

Analyte	Result	Detection	Reporting	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
		Limit	Limit								
Sample Preparation: EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Mercury	630	5.92	52.9	ng/g	1000	F911233	22-Nov-19	9L10009	09-Dec-19	EPA 1631B	

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Tetra Tech, Inc. Lafayette
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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F911233 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion											
Blank (F911233-BLK1)					Prepared: 22-Nov-19 Analyzed: 03-Dec-19						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F911233-BLK2)					Prepared: 22-Nov-19 Analyzed: 03-Dec-19						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F911233-BLK3)					Prepared: 22-Nov-19 Analyzed: 03-Dec-19						
Mercury	ND	0.090	0.800	ng/g							U
Blank (F911233-BLK4)					Prepared: 22-Nov-19 Analyzed: 03-Dec-19						
Mercury	ND	0.089	0.793	ng/g							U
Blank (F911233-BLK5)					Prepared: 22-Nov-19 Analyzed: 03-Dec-19						
Mercury	ND	0.089	0.796	ng/g							U
Blank (F911233-BLK6)					Prepared: 22-Nov-19 Analyzed: 03-Dec-19						
Mercury	ND	0.089	0.798	ng/g							U
LCS (F911233-BS1)					Prepared: 22-Nov-19 Analyzed: 03-Dec-19						
Mercury	7.832	0.085	0.760	ng/g	7.6046		103	75-125			
LCS Dup (F911233-BSD1)					Prepared: 22-Nov-19 Analyzed: 03-Dec-19						
Mercury	8.623	0.085	0.760	ng/g	7.6017		113	75-125	9.66	24	
Duplicate (F911233-DUP1)					Prepared: 22-Nov-19 Analyzed: 03-Dec-19						
Mercury	6.706	0.065	0.577	ng/g		3.997			50.6	24	QR-07
Matrix Spike (F911233-MS6)					Prepared: 22-Nov-19 Analyzed: 09-Dec-19						
Mercury	306.5	1.40	12.5	ng/g	313.38	11.58	94.1	71-125			

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Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F911233 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F911233-MSD6)

Source: 9I00267-01RE2 Prepared: 22-Nov-19 Analyzed: 09-Dec-19

Mercury	331.5	1.46	13.0	ng/g	325.20	11.58	98.4	71-125	4.46	24	

Batch F911246 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion

Blank (F911246-BLK1)

Prepared: 27-Nov-19 Analyzed: 04-Dec-19

Mercury	0.114	0.090	0.800	ng/g							J

Blank (F911246-BLK2)

Prepared: 27-Nov-19 Analyzed: 04-Dec-19

Mercury	0.099	0.090	0.800	ng/g							J

Blank (F911246-BLK3)

Prepared: 27-Nov-19 Analyzed: 04-Dec-19

Mercury	0.151	0.090	0.800	ng/g							J

LCS (F911246-BS1)

Prepared: 27-Nov-19 Analyzed: 04-Dec-19

Mercury	8.170	0.090	0.800	ng/g	8.0000		102	75-125			

LCS Dup (F911246-BSD1)

Prepared: 27-Nov-19 Analyzed: 04-Dec-19

Mercury	8.008	0.090	0.800	ng/g	8.0000		100	75-125	2.00	24	

Duplicate (F911246-DUP1)

Source: 9K00070-76 Prepared: 27-Nov-19 Analyzed: 04-Dec-19

Mercury	154.8	0.383	3.42	ng/g		174.3			11.9	24	

Matrix Spike (F911246-MS3)

Source: 9K00070-76 Prepared: 27-Nov-19 Analyzed: 09-Dec-19

Mercury	583.1	4.36	39.0	ng/g	389.71	174.3	105	71-125			QR-08

Matrix Spike (F911246-MS4)

Source: 9K00070-75 Prepared: 27-Nov-19 Analyzed: 09-Dec-19

Mercury	417.6	4.28	38.2	ng/g	382.12	133.7	74.3	71-125			QR-08

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F911246 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F911246-MSD3)		Source: 9K00070-76			Prepared: 27-Nov-19 Analyzed: 09-Dec-19						
Mercury	683.8	4.17	37.2	ng/g	372.16	174.3	137	71-125	26.5	24	QM-07, QR-08

Matrix Spike Dup (F911246-MSD4)		Source: 9K00070-75			Prepared: 27-Nov-19 Analyzed: 09-Dec-19						
Mercury	524.8	4.30	38.4	ng/g	384.02	133.7	102	71-125	31.3	24	QR-08

Batch F912199 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion

Blank (F912199-BLK1)		Prepared & Analyzed: 12-Dec-19									
Mercury	0.223	0.090	0.800	ng/g							J

Blank (F912199-BLK2)		Prepared & Analyzed: 12-Dec-19									
Mercury	1.340	0.090	0.800	ng/g							QB-01

Blank (F912199-BLK3)		Prepared & Analyzed: 12-Dec-19									
Mercury	0.163	0.090	0.800	ng/g							J

LCS (F912199-BS1)		Prepared & Analyzed: 12-Dec-19									
Mercury	7.810	0.090	0.800	ng/g	8.0000		97.6	75-125			

LCS Dup (F912199-BSD1)		Prepared & Analyzed: 12-Dec-19									
Mercury	8.244	0.090	0.800	ng/g	8.0000		103	75-125	5.40	24	

Duplicate (F912199-DUP2)		Source: 9K00070-57RE1			Prepared: 12-Dec-19 Analyzed: 13-Dec-19						
Mercury	1228	4.51	40.3	ng/g		1220			0.633	24	

Matrix Spike (F912199-MS3)		Source: 9K00070-57RE1			Prepared: 12-Dec-19 Analyzed: 13-Dec-19						
Mercury	1744	8.73	77.9	ng/g	313.80	1220	167	71-125			QM-05

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F912199 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion

Matrix Spike (F912199-MS4)		Source: 9K00070-63RE1		Prepared: 12-Dec-19 Analyzed: 13-Dec-19							
Mercury	2216	10.2	90.9	ng/g	366.18	1722	135	71-125			QM-05
Matrix Spike Dup (F912199-MSD3)		Source: 9K00070-57RE1		Prepared: 12-Dec-19 Analyzed: 13-Dec-19							
Mercury	1800	9.49	84.8	ng/g	341.47	1220	170	71-125	1.81	24	QM-05
Matrix Spike Dup (F912199-MSD4)		Source: 9K00070-63RE1		Prepared: 12-Dec-19 Analyzed: 13-Dec-19							
Mercury	1755	8.23	73.5	ng/g	295.92	1722	11.2	71-125	169	24	QM-05

Batch F912252 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion

Blank (F912252-BLK1)		Prepared: 23-Dec-19 Analyzed: 23-Jan-20									
Mercury	0.261	0.090	0.800	ng/g							J
Blank (F912252-BLK2)		Prepared: 23-Dec-19 Analyzed: 23-Jan-20									
Mercury	0.212	0.090	0.800	ng/g							J
Blank (F912252-BLK3)		Prepared: 23-Dec-19 Analyzed: 23-Jan-20									
Mercury	0.177	0.090	0.800	ng/g							J
LCS (F912252-BS1)		Prepared: 23-Dec-19 Analyzed: 23-Jan-20									
Mercury	9.024	0.090	0.800	ng/g	8.0000		113	75-125			
LCS Dup (F912252-BSD1)		Prepared: 23-Dec-19 Analyzed: 23-Jan-20									
Mercury	9.176	0.090	0.800	ng/g	8.0000		115	75-125	1.67	24	
Duplicate (F912252-DUP1)		Source: 9K00070-37		Prepared: 23-Dec-19 Analyzed: 23-Jan-20							
Mercury	44.41	3.28	29.3	ng/g		50.00			11.8	24	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F912252 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion

Matrix Spike (F912252-MS1)		Source: 9K00070-37			Prepared: 23-Dec-19 Analyzed: 23-Jan-20						
Mercury	363.9	3.61	32.2	ng/g	321.96	50.00	97.5	71-125			
Matrix Spike (F912252-MS2)		Source: 9K00070-40			Prepared: 23-Dec-19 Analyzed: 23-Jan-20						
Mercury	386.1	3.84	34.3	ng/g	342.94	51.25	97.6	71-125			
Matrix Spike Dup (F912252-MSD1)		Source: 9K00070-37			Prepared: 23-Dec-19 Analyzed: 23-Jan-20						
Mercury	388.5	3.77	33.7	ng/g	336.93	50.00	100	71-125	3.02	24	
Matrix Spike Dup (F912252-MSD2)		Source: 9K00070-40			Prepared: 23-Dec-19 Analyzed: 23-Jan-20						
Mercury	440.0	4.42	39.5	ng/g	394.94	51.25	98.4	71-125	0.823	24	

Batch F912265 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion

Blank (F912265-BLK1)					Prepared: 27-Dec-19 Analyzed: 22-Jan-20						
Mercury	0.541	0.090	0.800	ng/g							J
Blank (F912265-BLK2)					Prepared: 27-Dec-19 Analyzed: 22-Jan-20						
Mercury	0.412	0.090	0.800	ng/g							J
Blank (F912265-BLK3)					Prepared: 27-Dec-19 Analyzed: 22-Jan-20						
Mercury	0.288	0.090	0.800	ng/g							J
LCS (F912265-BS1)					Prepared: 27-Dec-19 Analyzed: 22-Jan-20						
Mercury	8.942	0.090	0.800	ng/g	8.0000		112	75-125			
LCS Dup (F912265-BSD1)					Prepared: 27-Dec-19 Analyzed: 22-Jan-20						
Mercury	8.781	0.090	0.800	ng/g	8.0000		110	75-125	1.82	24	

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Project: Guadalupe River
Project Number: T38272
Project Manager: Theodore E. Donn, Jr, PhD

Reported:
29-Jan-20 10:41

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

Batch F912265 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion

Duplicate (F912265-DUP1)		Source: 9K00070-25			Prepared: 27-Dec-19 Analyzed: 22-Jan-20						
Mercury	82.53	4.22	37.7	ng/g		82.97			0.540	24	
Matrix Spike (F912265-MS1)		Source: 9K00070-25			Prepared: 27-Dec-19 Analyzed: 22-Jan-20						
Mercury	421.0	4.34	38.7	ng/g	387.30	82.97	87.3	71-125			
Matrix Spike (F912265-MS2)		Source: 9K00070-27			Prepared: 27-Dec-19 Analyzed: 22-Jan-20						
Mercury	369.5	3.92	35.0	ng/g	350.39	35.59	95.3	71-125			
Matrix Spike Dup (F912265-MSD1)		Source: 9K00070-25			Prepared: 27-Dec-19 Analyzed: 22-Jan-20						
Mercury	369.9	3.66	32.7	ng/g	326.58	82.97	87.9	71-125	0.687	24	
Matrix Spike Dup (F912265-MSD2)		Source: 9K00070-27			Prepared: 27-Dec-19 Analyzed: 22-Jan-20						
Mercury	388.8	3.97	35.4	ng/g	354.36	35.59	99.7	71-125	4.48	24	

Batch F912275 - EFGS SOP2795 Nitric/Sulfuric Hg Digestion

Blank (F912275-BLK4)		Prepared: 27-Dec-19 Analyzed: 24-Jan-20									
Mercury	0.323	0.090	0.800	ng/g							J
Blank (F912275-BLK5)		Prepared: 27-Dec-19 Analyzed: 24-Jan-20									
Mercury	0.324	0.090	0.800	ng/g							J
LCS (F912275-BS2)		Prepared: 27-Dec-19 Analyzed: 24-Jan-20									
Mercury	9.082	0.090	0.800	ng/g	8.0000		114	75-125			
LCS Dup (F912275-BSD2)		Prepared: 27-Dec-19 Analyzed: 24-Jan-20									
Mercury	9.246	0.090	0.800	ng/g	8.0000		116	75-125	1.80	24	

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29-Jan-20 10:41

Notes and Definitions

U	Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
QR-08	The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
QR-07	The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
QM-05	The spike recovery was outside acceptance limits for the MS/MSD and or AS/ASD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QB-01	The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. However, the blank concentration(s) are less than 10% of the sample result.
J	The result is an estimated concentration.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the method detection limit if reported to the MDL or above the reporting limit if reported to the MRL.
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



ANALYTICAL REPORT

PREPARED FOR

Attn: Ted Donn
Tetra Tech, Inc.
3697 Mt. Diablo Blvd.
Suite 150
Lafayette, California 94549

Generated 7/31/2023 12:24:13 PM

JOB DESCRIPTION

Guadalupe River

JOB NUMBER

580-129149-1

Eurofins Seattle

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Generated
7/31/2023 12:24:13 PM

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Case Narrative

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Job ID: 580-129149-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-129149-1

Receipt

The samples were received on 7/7/2023 9:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -29.8°C

Metals

Method 1631B: The continuing calibration blank (CCB) for analytical batch 580-432707 contained Mercury above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method 1631B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 580-430974, 580-432379, 580-432408, 580-432417 and 580-432452 and analytical batch 580-432914 were outside control limits: (580-129149-A-127-C MS), (580-129149-A-127-D MSD), (580-129149-A-130-D MSD), (580-129149-A-162-C MS), (580-129149-A-162-D MSD), (580-129149-A-165-C MS), (580-129149-A-165-D MSD), (580-129149-A-166-C MS), (580-129149-A-166-D MSD), (580-129149-A-167-C MS) and (580-129149-A-167-D MSD). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 1631B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with preparation batch 580-430970 and 580-432291 and analytical batch 580-433049 were outside control limits: (580-129149-A-87-C MS), (580-129149-A-87-D MSD) and (580-129149-A-90-C MS). The associated laboratory control sample (LCS) recovery met acceptance criteria.

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

Definitions/Glossary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-001

Lab Sample ID: 580-129149-1

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	31	H H3	0.97	0.45	ng/g		07/21/23 13:30	07/27/23 12:39	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-002

Lab Sample ID: 580-129149-2

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	20	H H3	5.8	2.7	ng/g		07/21/23 13:30	07/27/23 12:52	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-003

Lab Sample ID: 580-129149-3

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	25	H H3	3.8	1.8	ng/g		07/21/23 13:30	07/27/23 13:08	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-004

Lab Sample ID: 580-129149-4

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	35	H H3	2.5	1.2	ng/g		07/21/23 13:30	07/27/23 13:46	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-005

Lab Sample ID: 580-129149-5

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	26	H H3	3.2	1.5	ng/g		07/21/23 13:30	07/27/23 14:35	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-006

Lab Sample ID: 580-129149-6

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	18	H H3	1.9	0.87	ng/g		07/21/23 13:30	07/27/23 14:52	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-007

Lab Sample ID: 580-129149-7

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	16	H H3	1.9	0.90	ng/g		07/21/23 13:30	07/27/23 14:56	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-008

Lab Sample ID: 580-129149-8

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	23	H H3	4.2	2.0	ng/g		07/21/23 13:30	07/27/23 15:00	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-009
Date Collected: 07/06/21 11:35
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-9
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	20	H H3	4.0	1.9	ng/g		07/21/23 13:30	07/27/23 15:04	20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-010

Lab Sample ID: 580-129149-10

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	51	H H3	3.1	1.4	ng/g		07/21/23 13:30	07/27/23 11:54	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-011

Lab Sample ID: 580-129149-11

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	17	H H3	3.6	1.7	ng/g		07/21/23 13:30	07/27/23 11:58	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-012

Lab Sample ID: 580-129149-12

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	29	H H3	5.1	2.4	ng/g		07/21/23 13:30	07/27/23 12:02	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-013

Lab Sample ID: 580-129149-13

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	38	H H3	3.8	1.8	ng/g		07/21/23 13:30	07/27/23 12:06	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-014
Date Collected: 07/06/21 11:35
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-14
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	18	H H3	2.3	1.1	ng/g		07/21/23 13:30	07/27/23 12:18	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-015

Lab Sample ID: 580-129149-15

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	27	H H3	2.7	1.3	ng/g		07/21/23 13:30	07/27/23 12:23	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-016

Lab Sample ID: 580-129149-16

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	44	H H3	4.9	2.3	ng/g		07/21/23 13:30	07/27/23 12:27	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-017

Lab Sample ID: 580-129149-17

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	17	H H3	1.0	0.47	ng/g		07/21/23 13:30	07/27/23 12:31	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-018

Lab Sample ID: 580-129149-18

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	200	H H3	5.0	2.3	ng/g		07/24/23 16:04	07/28/23 15:33	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-019

Lab Sample ID: 580-129149-19

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	15	H H3	0.95	0.45	ng/g		07/21/23 13:30	07/27/23 12:35	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-020

Lab Sample ID: 580-129149-20

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	21	H H3	0.93	0.44	ng/g		07/21/23 13:30	07/27/23 12:43	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-001

Lab Sample ID: 580-129149-21

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	200	H H3	20	9.2	ng/g		07/21/23 13:30	07/25/23 17:46	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-002

Lab Sample ID: 580-129149-22

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	180	H H3	23	11	ng/g		07/21/23 13:30	07/25/23 12:20	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-003

Lab Sample ID: 580-129149-23

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	160	H H3	23	11	ng/g		07/21/23 13:30	07/25/23 17:38	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-004

Lab Sample ID: 580-129149-24

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	190	H H3	20	9.3	ng/g		07/21/23 13:30	07/25/23 17:50	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-005

Lab Sample ID: 580-129149-25

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	210	H H3	20	9.3	ng/g		07/21/23 13:30	07/25/23 17:54	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-006

Lab Sample ID: 580-129149-26

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	180	H H3	20	9.4	ng/g		07/21/23 13:30	07/25/23 17:58	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-007

Lab Sample ID: 580-129149-27

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	160	H H3	3.4	1.6	ng/g		07/21/23 13:30	07/27/23 12:47	50

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-008

Lab Sample ID: 580-129149-28

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	200	H H3	25	12	ng/g		07/21/23 13:30	07/25/23 18:07	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-009

Lab Sample ID: 580-129149-29

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	200	H H3	25	12	ng/g		07/21/23 13:30	07/25/23 17:42	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-010

Lab Sample ID: 580-129149-30

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	210	H H3	26	12	ng/g		07/21/23 13:30	07/25/23 18:19	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-011

Lab Sample ID: 580-129149-31

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	260	H H3	4.8	2.2	ng/g		07/21/23 13:30	07/27/23 12:56	50

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-012

Lab Sample ID: 580-129149-32

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	340	H H3	23	11	ng/g		07/21/23 13:30	07/25/23 12:24	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-013

Lab Sample ID: 580-129149-33

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	290	H H3	20	9.2	ng/g		07/21/23 13:30	07/25/23 18:28	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-014

Lab Sample ID: 580-129149-34

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	290	H H3	20	9.4	ng/g		07/21/23 13:30	07/25/23 18:32	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-015

Lab Sample ID: 580-129149-35

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	160	H H3	20	9.3	ng/g		07/21/23 13:30	07/25/23 18:36	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-016

Lab Sample ID: 580-129149-36

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	230	H H3	20	9.3	ng/g		07/21/23 13:30	07/25/23 18:40	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-017

Lab Sample ID: 580-129149-37

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	170	H H3	19	9.1	ng/g		07/21/23 13:30	07/25/23 18:44	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-018

Lab Sample ID: 580-129149-38

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	190	H H3	20	9.4	ng/g		07/21/23 13:30	07/25/23 18:49	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-019
Date Collected: 07/06/21 07:51
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-39
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	230	H H3	20	9.3	ng/g		07/21/23 13:30	07/25/23 18:53	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-020

Lab Sample ID: 580-129149-40

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	160	H H3	3.7	1.8	ng/g		07/21/23 13:30	07/27/23 13:12	50

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-001

Lab Sample ID: 580-129149-41

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	18		0.91	0.43	ng/g		07/21/23 13:30	07/27/23 13:17	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-002

Lab Sample ID: 580-129149-42

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	16		1.4	0.64	ng/g		07/21/23 13:30	07/27/23 13:21	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-003
Date Collected: 06/21/23 08:20
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-43
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	20		0.97	0.46	ng/g		07/21/23 13:30	07/27/23 13:25	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-004
Date Collected: 06/21/23 08:20
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-44
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	20		0.89	0.42	ng/g		07/21/23 13:30	07/27/23 13:29	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-005

Lab Sample ID: 580-129149-45

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	310		20	9.3	ng/g		07/21/23 13:30	07/25/23 19:26	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-006

Lab Sample ID: 580-129149-46

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	21		0.93	0.44	ng/g		07/21/23 13:30	07/27/23 13:33	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-007

Lab Sample ID: 580-129149-47

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	23		1.2	0.56	ng/g		07/21/23 13:30	07/27/23 13:37	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-008

Lab Sample ID: 580-129149-48

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	410		23	11	ng/g		07/21/23 13:30	07/25/23 12:28	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-009

Lab Sample ID: 580-129149-49

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	20		1.1	0.52	ng/g		07/21/23 13:30	07/27/23 13:41	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-010

Lab Sample ID: 580-129149-50

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	23		1.2	0.57	ng/g		07/21/23 13:30	07/27/23 13:58	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-011

Lab Sample ID: 580-129149-51

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	22		1.0	0.47	ng/g		07/21/23 13:30	07/27/23 14:02	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-012

Lab Sample ID: 580-129149-52

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	16		0.98	0.46	ng/g		07/21/23 13:30	07/27/23 14:06	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-013
Date Collected: 06/21/23 08:20
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-53
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	15		0.98	0.46	ng/g		07/21/23 13:30	07/27/23 14:10	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-014
Date Collected: 06/21/23 08:20
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-54
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	16		0.99	0.47	ng/g		07/21/23 13:30	07/27/23 14:15	20

- 1
- 2
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- 8
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- 10
- 11

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-015

Lab Sample ID: 580-129149-55

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	12		0.91	0.43	ng/g		07/21/23 13:30	07/27/23 14:19	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-016

Lab Sample ID: 580-129149-56

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	55		2.4	1.1	ng/g		07/21/23 13:30	07/25/23 13:19	50

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-017

Lab Sample ID: 580-129149-57

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	27		1.1	0.53	ng/g		07/21/23 13:30	07/27/23 14:23	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-018

Lab Sample ID: 580-129149-58

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	18		1.2	0.55	ng/g		07/21/23 13:30	07/27/23 14:27	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-019

Lab Sample ID: 580-129149-59

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	24		1.1	0.52	ng/g		07/21/23 13:30	07/27/23 14:31	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-020

Lab Sample ID: 580-129149-60

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	21		1.0	0.47	ng/g		07/21/23 13:30	07/27/23 14:48	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-001

Lab Sample ID: 580-129149-61

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	54		2.5	1.2	ng/g		07/21/23 13:30	07/28/23 15:21	50

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-002

Lab Sample ID: 580-129149-62

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	94		2.4	1.1	ng/g		07/21/23 13:30	07/27/23 20:03	30

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-003

Lab Sample ID: 580-129149-63

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	83		2.6	1.2	ng/g		07/21/23 13:30	07/27/23 20:07	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-004

Lab Sample ID: 580-129149-64

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	84		2.8	1.3	ng/g		07/21/23 13:30	07/27/23 20:11	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-005
Date Collected: 06/21/23 12:43
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-65
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	66		2.3	1.1	ng/g		07/21/23 13:30	07/27/23 20:16	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-006

Lab Sample ID: 580-129149-66

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	73		2.4	1.1	ng/g		07/21/23 13:30	07/27/23 20:20	30

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-007

Lab Sample ID: 580-129149-67

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	69		9.9	4.7	ng/g		07/21/23 13:30	07/27/23 11:45	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-008

Lab Sample ID: 580-129149-68

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	77		2.7	1.3	ng/g		07/21/23 13:30	07/27/23 20:24	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-009

Lab Sample ID: 580-129149-69

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	61		1.9	0.90	ng/g		07/21/23 13:30	07/27/23 20:36	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-010

Lab Sample ID: 580-129149-70

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	60		2.3	1.1	ng/g		07/21/23 13:30	07/27/23 20:40	30

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-011

Lab Sample ID: 580-129149-71

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	84		2.8	1.3	ng/g		07/21/23 13:30	07/27/23 20:45	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-012

Lab Sample ID: 580-129149-72

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	65		2.9	1.3	ng/g		07/21/23 13:30	07/27/23 20:49	30

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-013

Lab Sample ID: 580-129149-73

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	52		2.0	0.95	ng/g		07/21/23 13:30	07/27/23 20:53	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-014

Lab Sample ID: 580-129149-74

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	50		2.9	1.4	ng/g		07/21/23 13:30	07/27/23 20:57	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-015

Lab Sample ID: 580-129149-75

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	82		2.0	0.92	ng/g		07/21/23 13:30	07/27/23 21:01	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-016

Lab Sample ID: 580-129149-76

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	58		2.4	1.2	ng/g		07/21/23 13:30	07/27/23 21:05	30

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-017

Lab Sample ID: 580-129149-77

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	66		3.0	1.4	ng/g		07/21/23 13:30	07/27/23 21:10	20

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Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-018

Lab Sample ID: 580-129149-78

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	49		2.3	1.1	ng/g		07/21/23 13:30	07/27/23 21:14	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-019

Lab Sample ID: 580-129149-79

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	38		1.5	0.69	ng/g		07/24/23 16:04	07/28/23 15:25	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-020

Lab Sample ID: 580-129149-80

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	32		1.9	0.88	ng/g		07/24/23 16:04	07/28/23 15:29	20

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-001

Lab Sample ID: 580-129149-81

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	550		24	11	ng/g		07/24/23 10:54	07/27/23 21:30	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-002

Lab Sample ID: 580-129149-82

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	420		23	11	ng/g		07/24/23 10:54	07/27/23 21:34	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-003

Lab Sample ID: 580-129149-83

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	770		23	11	ng/g		07/24/23 10:54	07/27/23 21:39	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-004
Date Collected: 06/21/23 09:54
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-84
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	420		25	12	ng/g		07/24/23 10:54	07/27/23 21:43	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-005

Lab Sample ID: 580-129149-85

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	590		24	11	ng/g		07/24/23 10:54	07/27/23 21:47	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-006

Lab Sample ID: 580-129149-86

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	610		25	12	ng/g		07/24/23 10:54	07/27/23 21:51	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-007

Lab Sample ID: 580-129149-87

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	710	F1	47	22	ng/g		07/24/23 10:54	07/27/23 11:41	1000

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-008

Lab Sample ID: 580-129149-88

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	530		25	12	ng/g		07/24/23 10:54	07/27/23 21:55	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-009

Lab Sample ID: 580-129149-89

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	620		23	11	ng/g		07/24/23 10:54	07/27/23 21:59	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-010

Lab Sample ID: 580-129149-90

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	670	F1	50	23	ng/g		07/24/23 10:54	07/27/23 11:37	1000

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-011

Lab Sample ID: 580-129149-91

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	680		24	11	ng/g		07/24/23 10:54	07/27/23 22:03	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-012

Lab Sample ID: 580-129149-92

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	600		24	11	ng/g		07/24/23 10:54	07/27/23 22:16	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-013

Lab Sample ID: 580-129149-93

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	550		23	11	ng/g		07/24/23 10:54	07/27/23 22:20	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-014
Date Collected: 06/21/23 09:54
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-94
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	700		23	11	ng/g		07/24/23 10:54	07/27/23 22:24	500

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-015

Lab Sample ID: 580-129149-95

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	560		23	11	ng/g		07/24/23 10:54	07/27/23 22:28	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-016

Lab Sample ID: 580-129149-96

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	500		24	12	ng/g		07/24/23 10:54	07/27/23 21:26	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-017

Lab Sample ID: 580-129149-97

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	400		23	11	ng/g		07/24/23 10:54	07/27/23 22:33	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-001

Lab Sample ID: 580-129149-98

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	190		11	5.1	ng/g		07/24/23 10:54	07/27/23 11:49	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-002

Lab Sample ID: 580-129149-99

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	350		7.5	3.5	ng/g		07/24/23 10:54	07/27/23 22:37	50

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-003

Lab Sample ID: 580-129149-100

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	180		11	5.3	ng/g		07/24/23 10:54	07/27/23 22:41	50

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-004

Lab Sample ID: 580-129149-101

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	230	B	21	9.7	ng/g		07/24/23 10:54	07/26/23 15:12	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-005

Lab Sample ID: 580-129149-102

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	150	B	7.7	3.6	ng/g		07/24/23 10:54	07/26/23 16:56	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-006

Lab Sample ID: 580-129149-103

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	150	B	9.7	4.6	ng/g		07/24/23 10:54	07/26/23 17:29	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-007

Lab Sample ID: 580-129149-104

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	200	B	8.0	3.8	ng/g		07/24/23 10:54	07/26/23 17:33	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-008

Lab Sample ID: 580-129149-105

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	150	B	12	5.6	ng/g		07/24/23 10:54	07/26/23 17:37	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-009

Lab Sample ID: 580-129149-106

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	270	B	15	7.0	ng/g		07/24/23 10:54	07/26/23 17:41	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-010

Lab Sample ID: 580-129149-107

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	190	B	9.2	4.3	ng/g		07/24/23 10:54	07/26/23 17:46	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-011

Lab Sample ID: 580-129149-108

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	200	B	5.9	2.8	ng/g		07/24/23 10:54	07/26/23 17:58	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-012

Lab Sample ID: 580-129149-109

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	370	B	7.4	3.5	ng/g		07/24/23 10:54	07/26/23 18:02	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-013

Lab Sample ID: 580-129149-110

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	210	B	5.1	2.4	ng/g		07/24/23 10:54	07/26/23 18:06	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-014

Lab Sample ID: 580-129149-111

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	130	B	4.7	2.2	ng/g		07/24/23 10:54	07/26/23 18:10	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-015

Lab Sample ID: 580-129149-112

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	140	B	5.1	2.4	ng/g		07/24/23 10:54	07/26/23 20:27	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-016

Lab Sample ID: 580-129149-113

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	130	B	3.3	1.6	ng/g		07/24/23 10:54	07/26/23 20:32	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-017

Lab Sample ID: 580-129149-114

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	120	B	5.5	2.6	ng/g		07/24/23 10:54	07/26/23 20:36	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-018

Lab Sample ID: 580-129149-115

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	140	B	6.8	3.2	ng/g		07/24/23 10:54	07/26/23 20:40	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-019

Lab Sample ID: 580-129149-116

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	180	B	5.4	2.5	ng/g		07/24/23 10:54	07/26/23 20:44	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-020

Lab Sample ID: 580-129149-117

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	210	B	6.6	3.1	ng/g		07/24/23 10:54	07/26/23 20:48	40

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-001

Lab Sample ID: 580-129149-118

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	300	B	4.9	2.3	ng/g		07/24/23 10:54	07/27/23 15:09	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-002

Lab Sample ID: 580-129149-119

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	310		20	9.2	ng/g		07/24/23 16:04	07/27/23 19:34	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-003

Lab Sample ID: 580-129149-120

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	530		18	8.5	ng/g		07/24/23 16:04	07/27/23 19:30	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-004

Lab Sample ID: 580-129149-121

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	350		4.8	2.2	ng/g		07/24/23 16:04	07/27/23 15:13	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-005

Lab Sample ID: 580-129149-122

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	410		4.8	2.3	ng/g		07/24/23 16:04	07/26/23 21:01	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-006

Lab Sample ID: 580-129149-123

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	480		4.8	2.2	ng/g		07/24/23 16:04	07/26/23 21:05	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-007

Lab Sample ID: 580-129149-124

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	410		4.6	2.1	ng/g		07/24/23 16:04	07/26/23 21:17	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-008

Lab Sample ID: 580-129149-125

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	520		4.7	2.2	ng/g		07/24/23 16:04	07/26/23 21:21	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-009

Lab Sample ID: 580-129149-126

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	530		4.7	2.2	ng/g		07/24/23 16:04	07/26/23 21:25	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-010

Lab Sample ID: 580-129149-127

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	690	F1	7.3	3.4	ng/g		07/24/23 16:04	07/26/23 13:57	150

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-011

Lab Sample ID: 580-129149-128

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	340		9.6	4.5	ng/g		07/24/23 16:04	07/26/23 21:30	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-012

Lab Sample ID: 580-129149-129

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	390		9.2	4.3	ng/g		07/24/23 16:04	07/26/23 15:29	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-013

Lab Sample ID: 580-129149-130

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	620	F1	9.4	4.4	ng/g		07/24/23 16:04	07/26/23 14:01	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-014

Lab Sample ID: 580-129149-131

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	580		9.3	4.4	ng/g		07/24/23 16:04	07/26/23 21:38	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-015

Lab Sample ID: 580-129149-132

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	870		9.9	4.6	ng/g		07/24/23 16:04	07/26/23 21:42	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-016

Lab Sample ID: 580-129149-133

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	630		9.7	4.5	ng/g		07/24/23 16:04	07/26/23 21:46	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-017
Date Collected: 06/22/23 08:16
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-134
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	470		9.0	4.2	ng/g		07/24/23 16:04	07/26/23 21:50	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-018

Lab Sample ID: 580-129149-135

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	580		9.2	4.3	ng/g		07/24/23 16:04	07/26/23 21:54	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-019

Lab Sample ID: 580-129149-136

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	600		9.0	4.2	ng/g		07/24/23 16:04	07/26/23 22:07	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-020

Lab Sample ID: 580-129149-137

Date Collected: 06/22/23 08:16

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	380		10	4.7	ng/g		07/24/23 16:04	07/26/23 22:11	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-001

Lab Sample ID: 580-129149-138

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	330		10	4.7	ng/g		07/24/23 16:04	07/26/23 22:15	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-002

Lab Sample ID: 580-129149-139

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	420		9.1	4.3	ng/g		07/24/23 16:04	07/26/23 22:19	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-003

Lab Sample ID: 580-129149-140

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	390		9.5	4.5	ng/g		07/24/23 16:04	07/26/23 22:24	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-004

Lab Sample ID: 580-129149-141

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	360		9.7	4.6	ng/g		07/24/23 16:04	07/27/23 17:25	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-005

Lab Sample ID: 580-129149-142

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	320		9.6	4.5	ng/g		07/24/23 16:04	07/27/23 17:30	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-006

Lab Sample ID: 580-129149-143

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	360		9.8	4.6	ng/g		07/24/23 16:04	07/27/23 17:34	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-007
Date Collected: 06/22/23 13:05
Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-144
Matrix: Tissue

Method: EPA 1631B - Mercury, Low Level (CVAFS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	450		9.3	4.3	ng/g		07/24/23 16:04	07/27/23 17:38	200

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-008

Lab Sample ID: 580-129149-145

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	380		9.7	4.6	ng/g		07/24/23 16:04	07/27/23 17:42	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-009

Lab Sample ID: 580-129149-146

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	340		8.9	4.2	ng/g		07/24/23 16:04	07/27/23 17:46	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-010

Lab Sample ID: 580-129149-147

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	460		9.7	4.5	ng/g		07/24/23 16:04	07/27/23 17:50	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-011

Lab Sample ID: 580-129149-148

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	420		9.5	4.5	ng/g		07/24/23 16:04	07/27/23 17:54	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-012

Lab Sample ID: 580-129149-149

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	450		9.1	4.3	ng/g		07/24/23 16:04	07/27/23 18:07	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-013

Lab Sample ID: 580-129149-150

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	380		9.3	4.4	ng/g		07/24/23 16:04	07/26/23 15:33	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-014

Lab Sample ID: 580-129149-151

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	460		9.2	4.3	ng/g		07/24/23 16:04	07/27/23 18:11	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-015

Lab Sample ID: 580-129149-152

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	380		9.3	4.4	ng/g		07/24/23 16:04	07/27/23 18:15	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-016

Lab Sample ID: 580-129149-153

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	560		9.6	4.5	ng/g		07/24/23 16:04	07/27/23 18:19	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-017

Lab Sample ID: 580-129149-154

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	300		9.7	4.6	ng/g		07/24/23 16:04	07/27/23 18:24	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-018

Lab Sample ID: 580-129149-155

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	430		9.4	4.4	ng/g		07/24/23 16:04	07/27/23 18:28	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-019

Lab Sample ID: 580-129149-156

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	360		9.5	4.5	ng/g		07/24/23 16:04	07/27/23 18:32	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-020

Lab Sample ID: 580-129149-157

Date Collected: 06/22/23 13:05

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	450		10	4.9	ng/g		07/24/23 16:04	07/27/23 18:36	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-001

Lab Sample ID: 580-129149-158

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	910		48	22	ng/g		07/21/23 13:30	07/27/23 11:29	1000

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-002

Lab Sample ID: 580-129149-159

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	680		47	22	ng/g		07/21/23 13:30	07/27/23 11:33	1000

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-003

Lab Sample ID: 580-129149-160

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	750		23	11	ng/g		07/21/23 13:30	07/25/23 12:16	500

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-004

Lab Sample ID: 580-129149-161

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	460	B	4.8	2.3	ng/g		07/24/23 10:54	07/26/23 13:49	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-005

Lab Sample ID: 580-129149-162

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	470	F1 B	5.0	2.3	ng/g		07/24/23 10:54	07/26/23 13:53	100

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-006

Lab Sample ID: 580-129149-163

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	590		9.5	4.5	ng/g		07/24/23 16:04	07/27/23 18:40	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-007

Lab Sample ID: 580-129149-164

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	750		9.1	4.3	ng/g		07/24/23 16:04	07/26/23 14:14	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-008

Lab Sample ID: 580-129149-165

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	570	F1	10	4.7	ng/g		07/24/23 16:04	07/26/23 14:06	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-009

Lab Sample ID: 580-129149-166

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	530	F1	9.1	4.3	ng/g		07/24/23 16:04	07/26/23 14:10	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-010

Lab Sample ID: 580-129149-167

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	520	F1	9.2	4.3	ng/g		07/24/23 16:04	07/26/23 14:18	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-011

Lab Sample ID: 580-129149-168

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	510		19	9.1	ng/g		07/24/23 16:04	07/27/23 18:44	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-012

Lab Sample ID: 580-129149-169

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	570		19	8.8	ng/g		07/24/23 16:04	07/27/23 18:57	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-013

Lab Sample ID: 580-129149-170

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	630		9.2	4.3	ng/g		07/24/23 16:04	07/26/23 15:37	200

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-014

Lab Sample ID: 580-129149-171

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	480		18	8.5	ng/g		07/24/23 16:04	07/27/23 19:01	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-015

Lab Sample ID: 580-129149-172

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	610		19	9.1	ng/g		07/24/23 16:04	07/27/23 19:05	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-016

Lab Sample ID: 580-129149-173

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	550		20	9.2	ng/g		07/24/23 16:04	07/27/23 19:09	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-017

Lab Sample ID: 580-129149-174

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	660		20	9.2	ng/g		07/24/23 16:04	07/27/23 19:13	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-018

Lab Sample ID: 580-129149-175

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	520		20	9.3	ng/g		07/24/23 16:04	07/27/23 19:17	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-019

Lab Sample ID: 580-129149-176

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	630		18	8.6	ng/g		07/24/23 16:04	07/27/23 19:22	400

Client Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-020

Lab Sample ID: 580-129149-177

Date Collected: 06/26/23 08:40

Matrix: Tissue

Date Received: 07/07/23 09:40

Method: EPA 1631B - Mercury, Low Level (CVAFS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	560		18	8.5	ng/g		07/24/23 16:04	07/27/23 19:26	400

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 580-432163/1-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/25/23 14:22	20

Lab Sample ID: MB 580-432163/2-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/25/23 14:26	20

Lab Sample ID: MB 580-432163/3-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/25/23 14:30	20

Lab Sample ID: LCS 580-432163/4-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	396	414		ng/g		104	75 - 125

Lab Sample ID: LCSD 580-432163/5-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 432163

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	396	426		ng/g		108	75 - 125	3	24

Lab Sample ID: 580-129149-1 MS

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 21-GRC-001

Prep Type: Total/NA

Prep Batch: 432163

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	34	H H3	388	431		ng/g		102	71 - 125

Lab Sample ID: 580-129149-1 MSD

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 21-GRC-001

Prep Type: Total/NA

Prep Batch: 432163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	34	H H3	373	429		ng/g		106	71 - 125	1	24

Lab Sample ID: 580-129149-160 MS

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 23-LA-003

Prep Type: Total/NA

Prep Batch: 432163

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	750		357	1100		ng/g		100	71 - 125

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: 580-129149-160 MSD

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 23-LA-003

Prep Type: Total/NA

Prep Batch: 432163

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	750		384	1110		ng/g		95	71 - 125	1	24

Lab Sample ID: MB 580-432167/1-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432167

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/25/23 14:43	20

Lab Sample ID: MB 580-432167/2-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432167

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/25/23 14:47	20

Lab Sample ID: MB 580-432167/3-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432167

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/25/23 14:59	20

Lab Sample ID: LCS 580-432167/4-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432167

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	396	416		ng/g		105	75 - 125

Lab Sample ID: LCSD 580-432167/5-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 432167

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	396	432		ng/g		109	75 - 125	4	24

Lab Sample ID: 580-129149-22 MS

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 21-GC-002

Prep Type: Total/NA

Prep Batch: 432167

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	180	H H3	364	570		ng/g		107	71 - 125

Lab Sample ID: 580-129149-22 MSD

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 21-GC-002

Prep Type: Total/NA

Prep Batch: 432167

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	180	H H3	359	550		ng/g		103	71 - 125	4	24

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: 580-129149-32 MS

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 21-GC-012

Prep Type: Total/NA

Prep Batch: 432167

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	340	H H3	365	733		ng/g		107	71 - 125

Lab Sample ID: 580-129149-32 MSD

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 21-GC-012

Prep Type: Total/NA

Prep Batch: 432167

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	340	H H3	386	725		ng/g		99	71 - 125	1	24

Lab Sample ID: MB 580-432257/1-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432257

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/25/23 15:12	20

Lab Sample ID: MB 580-432257/2-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432257

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/25/23 15:16	20

Lab Sample ID: MB 580-432257/3-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432257

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/25/23 15:20	20

Lab Sample ID: LCS 580-432257/4-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432257

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	396	429		ng/g		108	75 - 125

Lab Sample ID: LCSD 580-432257/5-A

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 432257

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	396	439		ng/g		111	75 - 125	2	24

Lab Sample ID: 580-129149-48 MS

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 23-GCL-008

Prep Type: Total/NA

Prep Batch: 432257

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	410		383	736		ng/g		84	71 - 125

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: 580-129149-48 MSD

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 23-GCL-008

Prep Type: Total/NA

Prep Batch: 432257

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	410		380	684		ng/g		71	71 - 125	7	24

Lab Sample ID: 580-129149-56 MS

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 23-GCL-016

Prep Type: Total/NA

Prep Batch: 432257

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	55		362	413		ng/g		99	71 - 125		

Lab Sample ID: 580-129149-56 MSD

Matrix: Tissue

Analysis Batch: 432707

Client Sample ID: 23-GCL-016

Prep Type: Total/NA

Prep Batch: 432257

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	55		380	451		ng/g		104	71 - 125	9	24

Lab Sample ID: MB 580-432271/1-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432271

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/27/23 15:50	20

Lab Sample ID: MB 580-432271/2-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432271

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/27/23 15:54	20

Lab Sample ID: MB 580-432271/3-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432271

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/21/23 13:30	07/27/23 15:58	20

Lab Sample ID: LCS 580-432271/4-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432271

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	396	394		ng/g		99	75 - 125		

Lab Sample ID: LCSD 580-432271/5-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 432271

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	396	403		ng/g		102	75 - 125	2	24

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: 580-129149-158 MS

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: 23-LA-001

Prep Type: Total/NA

Prep Batch: 432271

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	910		386	1280		ng/g		96	71 - 125

Lab Sample ID: 580-129149-158 MSD

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: 23-LA-001

Prep Type: Total/NA

Prep Batch: 432271

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	910		355	1230		ng/g		90	71 - 125	4	24

Lab Sample ID: 580-129149-159 MS

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: 23-LA-002

Prep Type: Total/NA

Prep Batch: 432271

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	680		396	1090		ng/g		105	71 - 125

Lab Sample ID: 580-129149-159 MSD

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: 23-LA-002

Prep Type: Total/NA

Prep Batch: 432271

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	680		356	1110		ng/g		120	71 - 125	1	24

Lab Sample ID: MB 580-432291/1-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 10:54	07/27/23 16:36	20

Lab Sample ID: MB 580-432291/2-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 10:54	07/27/23 16:40	20

Lab Sample ID: MB 580-432291/3-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432291

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 10:54	07/27/23 16:44	20

Lab Sample ID: LCS 580-432291/4-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432291

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	396	385		ng/g		97	75 - 125

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: LCSD 580-432291/5-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 432291

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	396	396		ng/g		100	75 - 125	3	24

Lab Sample ID: 580-129149-87 MS

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: 23-GRF-007

Prep Type: Total/NA

Prep Batch: 432291

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	710	F1	364	1180	F1	ng/g		128	71 - 125		

Lab Sample ID: 580-129149-87 MSD

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: 23-GRF-007

Prep Type: Total/NA

Prep Batch: 432291

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	710	F1	388	1250	F1	ng/g		137	71 - 125	6	24

Lab Sample ID: 580-129149-90 MS

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: 23-GRF-010

Prep Type: Total/NA

Prep Batch: 432291

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	670	F1	363	916	F1	ng/g		68	71 - 125		

Lab Sample ID: 580-129149-90 MSD

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: 23-GRF-010

Prep Type: Total/NA

Prep Batch: 432291

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	670	F1	387	980		ng/g		80	71 - 125	7	24

Lab Sample ID: MB 580-432379/1-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432379

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 10:54	07/26/23 12:59	20

Lab Sample ID: MB 580-432379/2-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432379

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 10:54	07/26/23 13:03	20

Lab Sample ID: MB 580-432379/3-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432379

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.677	J	1.0	0.47	ng/g		07/24/23 10:54	07/26/23 13:08	20

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: LCS 580-432379/4-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432379

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	396	415		ng/g		105	75 - 125

Lab Sample ID: LCSD 580-432379/5-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 432379

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	396	395		ng/g		100	75 - 125	5	24

Lab Sample ID: 580-129149-161 MS

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-004

Prep Type: Total/NA

Prep Batch: 432379

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	460	B	356	826		ng/g		103	71 - 125

Lab Sample ID: 580-129149-161 MSD

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-004

Prep Type: Total/NA

Prep Batch: 432379

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	460	B	382	847		ng/g		102	71 - 125	2	24

Lab Sample ID: 580-129149-162 MS

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-005

Prep Type: Total/NA

Prep Batch: 432379

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	470	F1 B	372	1030	F1	ng/g		150	71 - 125

Lab Sample ID: 580-129149-162 MSD

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-005

Prep Type: Total/NA

Prep Batch: 432379

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Mercury	470	F1 B	375	1140	F1	ng/g		178	71 - 125	10	24

Lab Sample ID: MB 580-432408/1-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/26/23 13:12	20

Lab Sample ID: MB 580-432408/2-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/26/23 13:16	20

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 580-432408/3-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/26/23 13:20	20

Lab Sample ID: LCS 580-432408/4-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432408

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	396	389		ng/g		98	75 - 125

Lab Sample ID: LCSD 580-432408/5-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 432408

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	396	399		ng/g		101	75 - 125	3	24

Lab Sample ID: 580-129149-127 MS

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-ACH-010

Prep Type: Total/NA

Prep Batch: 432408

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	690	F1	392	1230	F1	ng/g		137	71 - 125

Lab Sample ID: 580-129149-127 MSD

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-ACH-010

Prep Type: Total/NA

Prep Batch: 432408

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	690	F1	390	1320	F1	ng/g		164	71 - 125	8	24

Lab Sample ID: 580-129149-130 MS

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-ACH-013

Prep Type: Total/NA

Prep Batch: 432408

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	620	F1	366	1040		ng/g		114	71 - 125

Lab Sample ID: 580-129149-130 MSD

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-ACH-013

Prep Type: Total/NA

Prep Batch: 432408

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	620	F1	364	1140	F1	ng/g		142	71 - 125	9	24

Lab Sample ID: MB 580-432417/1-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432417

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/26/23 13:24	20

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 580-432417/1-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432417

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/27/23 15:17	20

Lab Sample ID: MB 580-432417/2-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432417

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/26/23 13:28	20

Lab Sample ID: MB 580-432417/2-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432417

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/27/23 15:21	20

Lab Sample ID: MB 580-432417/3-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432417

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/26/23 13:32	20

Lab Sample ID: MB 580-432417/3-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432417

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/27/23 15:25	20

Lab Sample ID: LCS 580-432417/4-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432417

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	396	416		ng/g		105	75 - 125

Lab Sample ID: LCSD 580-432417/5-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 432417

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	396	390		ng/g		98	75 - 125	6	24

Lab Sample ID: 580-129149-165 MS

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-008

Prep Type: Total/NA

Prep Batch: 432417

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	570	F1	385	1150	F1	ng/g		151	71 - 125

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: 580-129149-165 MSD

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-008

Prep Type: Total/NA

Prep Batch: 432417

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	570	F1	396	1130	F1	ng/g		143	71 - 125	2	24

Lab Sample ID: 580-129149-166 MS

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-009

Prep Type: Total/NA

Prep Batch: 432417

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury	530	F1	373	1110	F1	ng/g		155	71 - 125		

Lab Sample ID: 580-129149-166 MSD

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-009

Prep Type: Total/NA

Prep Batch: 432417

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	530	F1	394	1160	F1	ng/g		161	71 - 125	5	24

Lab Sample ID: MB 580-432452/1-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/26/23 13:37	20

Lab Sample ID: MB 580-432452/1-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/27/23 15:38	20

Lab Sample ID: MB 580-432452/2-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/26/23 14:22	20

Lab Sample ID: MB 580-432452/2-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/27/23 15:42	20

Lab Sample ID: MB 580-432452/3-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/26/23 14:26	20

Eurofins Seattle

QC Sample Results

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Method: 1631B - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 580-432452/3-A

Matrix: Tissue

Analysis Batch: 433049

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 432452

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		1.0	0.47	ng/g		07/24/23 16:04	07/27/23 15:46	20

Lab Sample ID: LCS 580-432452/4-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 432452

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	396	387		ng/g		98	75 - 125

Lab Sample ID: LCSD 580-432452/5-A

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 432452

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	396	395		ng/g		100	75 - 125	2	24

Lab Sample ID: 580-129149-164 MS

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-007

Prep Type: Total/NA

Prep Batch: 432452

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	750		359	1100		ng/g		97	71 - 125

Lab Sample ID: 580-129149-164 MSD

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-007

Prep Type: Total/NA

Prep Batch: 432452

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	750		373	1160		ng/g		109	71 - 125	5	24

Lab Sample ID: 580-129149-167 MS

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-010

Prep Type: Total/NA

Prep Batch: 432452

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	520	F1	372	1050	F1	ng/g		141	71 - 125

Lab Sample ID: 580-129149-167 MSD

Matrix: Tissue

Analysis Batch: 432914

Client Sample ID: 23-LA-010

Prep Type: Total/NA

Prep Batch: 432452

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	520	F1	382	1200	F1	ng/g		179	71 - 125	14	24

Eurofins Seattle

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-001

Lab Sample ID: 580-129149-1

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 12:39

Client Sample ID: 21-GRC-002

Lab Sample ID: 580-129149-2

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 12:52

Client Sample ID: 21-GRC-003

Lab Sample ID: 580-129149-3

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 13:08

Client Sample ID: 21-GRC-004

Lab Sample ID: 580-129149-4

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 13:46

Client Sample ID: 21-GRC-005

Lab Sample ID: 580-129149-5

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:35

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-006

Lab Sample ID: 580-129149-6

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:52

Client Sample ID: 21-GRC-007

Lab Sample ID: 580-129149-7

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:56

Client Sample ID: 21-GRC-008

Lab Sample ID: 580-129149-8

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 15:00

Client Sample ID: 21-GRC-009

Lab Sample ID: 580-129149-9

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 15:04

Client Sample ID: 21-GRC-010

Lab Sample ID: 580-129149-10

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 11:54

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-011

Lab Sample ID: 580-129149-11

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 11:58

Client Sample ID: 21-GRC-012

Lab Sample ID: 580-129149-12

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 12:02

Client Sample ID: 21-GRC-013

Lab Sample ID: 580-129149-13

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 12:06

Client Sample ID: 21-GRC-014

Lab Sample ID: 580-129149-14

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 12:18

Client Sample ID: 21-GRC-015

Lab Sample ID: 580-129149-15

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 12:23

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GRC-016

Lab Sample ID: 580-129149-16

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 12:27

Client Sample ID: 21-GRC-017

Lab Sample ID: 580-129149-17

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 12:31

Client Sample ID: 21-GRC-018

Lab Sample ID: 580-129149-18

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		100	433233	D1C	EET SEA	07/28/23 15:33

Client Sample ID: 21-GRC-019

Lab Sample ID: 580-129149-19

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 12:35

Client Sample ID: 21-GRC-020

Lab Sample ID: 580-129149-20

Date Collected: 07/06/21 11:35

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 12:43

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-001

Lab Sample ID: 580-129149-21

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 17:46

Client Sample ID: 21-GC-002

Lab Sample ID: 580-129149-22

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		500	432707	D1C	EET SEA	07/25/23 12:20

Client Sample ID: 21-GC-003

Lab Sample ID: 580-129149-23

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 17:38

Client Sample ID: 21-GC-004

Lab Sample ID: 580-129149-24

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 17:50

Client Sample ID: 21-GC-005

Lab Sample ID: 580-129149-25

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 17:54

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-006

Lab Sample ID: 580-129149-26

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 17:58

Client Sample ID: 21-GC-007

Lab Sample ID: 580-129149-27

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		50	433049	D1C	EET SEA	07/27/23 12:47

Client Sample ID: 21-GC-008

Lab Sample ID: 580-129149-28

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 18:07

Client Sample ID: 21-GC-009

Lab Sample ID: 580-129149-29

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 17:42

Client Sample ID: 21-GC-010

Lab Sample ID: 580-129149-30

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 18:19

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-011

Lab Sample ID: 580-129149-31

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		50	433049	D1C	EET SEA	07/27/23 12:56

Client Sample ID: 21-GC-012

Lab Sample ID: 580-129149-32

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		500	432707	D1C	EET SEA	07/25/23 12:24

Client Sample ID: 21-GC-013

Lab Sample ID: 580-129149-33

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 18:28

Client Sample ID: 21-GC-014

Lab Sample ID: 580-129149-34

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 18:32

Client Sample ID: 21-GC-015

Lab Sample ID: 580-129149-35

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 18:36

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 21-GC-016

Lab Sample ID: 580-129149-36

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 18:40

Client Sample ID: 21-GC-017

Lab Sample ID: 580-129149-37

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 18:44

Client Sample ID: 21-GC-018

Lab Sample ID: 580-129149-38

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 18:49

Client Sample ID: 21-GC-019

Lab Sample ID: 580-129149-39

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 18:53

Client Sample ID: 21-GC-020

Lab Sample ID: 580-129149-40

Date Collected: 07/06/21 07:51

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432167	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		50	433049	D1C	EET SEA	07/27/23 13:12

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-001

Lab Sample ID: 580-129149-41

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 13:17

Client Sample ID: 23-GCL-002

Lab Sample ID: 580-129149-42

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 13:21

Client Sample ID: 23-GCL-003

Lab Sample ID: 580-129149-43

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 13:25

Client Sample ID: 23-GCL-004

Lab Sample ID: 580-129149-44

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 13:29

Client Sample ID: 23-GCL-005

Lab Sample ID: 580-129149-45

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		400	432707	D1C	EET SEA	07/25/23 19:26

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-006

Lab Sample ID: 580-129149-46

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 13:33

Client Sample ID: 23-GCL-007

Lab Sample ID: 580-129149-47

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 13:37

Client Sample ID: 23-GCL-008

Lab Sample ID: 580-129149-48

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		500	432707	D1C	EET SEA	07/25/23 12:28

Client Sample ID: 23-GCL-009

Lab Sample ID: 580-129149-49

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 13:41

Client Sample ID: 23-GCL-010

Lab Sample ID: 580-129149-50

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 13:58

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-011

Lab Sample ID: 580-129149-51

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:02

Client Sample ID: 23-GCL-012

Lab Sample ID: 580-129149-52

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:06

Client Sample ID: 23-GCL-013

Lab Sample ID: 580-129149-53

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:10

Client Sample ID: 23-GCL-014

Lab Sample ID: 580-129149-54

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:15

Client Sample ID: 23-GCL-015

Lab Sample ID: 580-129149-55

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:19

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GCL-016

Lab Sample ID: 580-129149-56

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		50	432707	D1C	EET SEA	07/25/23 13:19

Client Sample ID: 23-GCL-017

Lab Sample ID: 580-129149-57

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:23

Client Sample ID: 23-GCL-018

Lab Sample ID: 580-129149-58

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:27

Client Sample ID: 23-GCL-019

Lab Sample ID: 580-129149-59

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:31

Client Sample ID: 23-GCL-020

Lab Sample ID: 580-129149-60

Date Collected: 06/21/23 08:20

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432257	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 14:48

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-001

Lab Sample ID: 580-129149-61

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		50	433233	D1C	EET SEA	07/28/23 15:21

Client Sample ID: 23-GRC-002

Lab Sample ID: 580-129149-62

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		30	433049	D1C	EET SEA	07/27/23 20:03

Client Sample ID: 23-GRC-003

Lab Sample ID: 580-129149-63

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		40	433049	D1C	EET SEA	07/27/23 20:07

Client Sample ID: 23-GRC-004

Lab Sample ID: 580-129149-64

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		40	433049	D1C	EET SEA	07/27/23 20:11

Client Sample ID: 23-GRC-005

Lab Sample ID: 580-129149-65

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		40	433049	D1C	EET SEA	07/27/23 20:16

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-006

Lab Sample ID: 580-129149-66

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		30	433049	D1C	EET SEA	07/27/23 20:20

Client Sample ID: 23-GRC-007

Lab Sample ID: 580-129149-67

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 11:45

Client Sample ID: 23-GRC-008

Lab Sample ID: 580-129149-68

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		40	433049	D1C	EET SEA	07/27/23 20:24

Client Sample ID: 23-GRC-009

Lab Sample ID: 580-129149-69

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 20:36

Client Sample ID: 23-GRC-010

Lab Sample ID: 580-129149-70

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		30	433049	D1C	EET SEA	07/27/23 20:40

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-011

Lab Sample ID: 580-129149-71

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		40	433049	D1C	EET SEA	07/27/23 20:45

Client Sample ID: 23-GRC-012

Lab Sample ID: 580-129149-72

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		30	433049	D1C	EET SEA	07/27/23 20:49

Client Sample ID: 23-GRC-013

Lab Sample ID: 580-129149-73

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 20:53

Client Sample ID: 23-GRC-014

Lab Sample ID: 580-129149-74

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		40	433049	D1C	EET SEA	07/27/23 20:57

Client Sample ID: 23-GRC-015

Lab Sample ID: 580-129149-75

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 21:01

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRC-016

Lab Sample ID: 580-129149-76

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		30	433049	D1C	EET SEA	07/27/23 21:05

Client Sample ID: 23-GRC-017

Lab Sample ID: 580-129149-77

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		20	433049	D1C	EET SEA	07/27/23 21:10

Client Sample ID: 23-GRC-018

Lab Sample ID: 580-129149-78

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		40	433049	D1C	EET SEA	07/27/23 21:14

Client Sample ID: 23-GRC-019

Lab Sample ID: 580-129149-79

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		20	433233	D1C	EET SEA	07/28/23 15:25

Client Sample ID: 23-GRC-020

Lab Sample ID: 580-129149-80

Date Collected: 06/21/23 12:43

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		20	433233	D1C	EET SEA	07/28/23 15:29

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-001

Lab Sample ID: 580-129149-81

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 21:30

Client Sample ID: 23-GRF-002

Lab Sample ID: 580-129149-82

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 21:34

Client Sample ID: 23-GRF-003

Lab Sample ID: 580-129149-83

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 21:39

Client Sample ID: 23-GRF-004

Lab Sample ID: 580-129149-84

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 21:43

Client Sample ID: 23-GRF-005

Lab Sample ID: 580-129149-85

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 21:47

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-006

Lab Sample ID: 580-129149-86

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 21:51

Client Sample ID: 23-GRF-007

Lab Sample ID: 580-129149-87

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		1000	433049	D1C	EET SEA	07/27/23 11:41

Client Sample ID: 23-GRF-008

Lab Sample ID: 580-129149-88

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 21:55

Client Sample ID: 23-GRF-009

Lab Sample ID: 580-129149-89

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 21:59

Client Sample ID: 23-GRF-010

Lab Sample ID: 580-129149-90

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		1000	433049	D1C	EET SEA	07/27/23 11:37

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-011

Lab Sample ID: 580-129149-91

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 22:03

Client Sample ID: 23-GRF-012

Lab Sample ID: 580-129149-92

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 22:16

Client Sample ID: 23-GRF-013

Lab Sample ID: 580-129149-93

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 22:20

Client Sample ID: 23-GRF-014

Lab Sample ID: 580-129149-94

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 22:24

Client Sample ID: 23-GRF-015

Lab Sample ID: 580-129149-95

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 22:28

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GRF-016

Lab Sample ID: 580-129149-96

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 21:26

Client Sample ID: 23-GRF-017

Lab Sample ID: 580-129149-97

Date Collected: 06/21/23 09:54

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		500	433049	D1C	EET SEA	07/27/23 22:33

Client Sample ID: 23-ACG-001

Lab Sample ID: 580-129149-98

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		100	433049	D1C	EET SEA	07/27/23 11:49

Client Sample ID: 23-ACG-002

Lab Sample ID: 580-129149-99

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		50	433049	D1C	EET SEA	07/27/23 22:37

Client Sample ID: 23-ACG-003

Lab Sample ID: 580-129149-100

Date Collected: 06/22/23 10:22

Matrix: Tissue

Date Received: 07/07/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430970	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432291	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		50	433049	D1C	EET SEA	07/27/23 22:41

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-004

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-101

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 15:12

Client Sample ID: 23-ACG-005

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-102

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 16:56

Client Sample ID: 23-ACG-006

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-103

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 17:29

Client Sample ID: 23-ACG-007

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-104

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 17:33

Client Sample ID: 23-ACG-008

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-105

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 17:37

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-009

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-106

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 17:41

Client Sample ID: 23-ACG-010

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-107

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 17:46

Client Sample ID: 23-ACG-011

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-108

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		40	432914	CL	EET SEA	07/26/23 17:58

Client Sample ID: 23-ACG-012

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-109

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		40	432914	CL	EET SEA	07/26/23 18:02

Client Sample ID: 23-ACG-013

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-110

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		40	432914	CL	EET SEA	07/26/23 18:06

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-014

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-111

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		40	432914	CL	EET SEA	07/26/23 18:10

Client Sample ID: 23-ACG-015

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-112

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		40	432914	CL	EET SEA	07/26/23 20:27

Client Sample ID: 23-ACG-016

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-113

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		40	432914	CL	EET SEA	07/26/23 20:32

Client Sample ID: 23-ACG-017

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-114

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		40	432914	CL	EET SEA	07/26/23 20:36

Client Sample ID: 23-ACG-018

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-115

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		40	432914	CL	EET SEA	07/26/23 20:40

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACG-019

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-116

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		40	432914	CL	EET SEA	07/26/23 20:44

Client Sample ID: 23-ACG-020

Date Collected: 06/22/23 10:22

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-117

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		40	432914	CL	EET SEA	07/26/23 20:48

Client Sample ID: 23-ACH-001

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-118

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		100	433049	D1C	EET SEA	07/27/23 15:09

Client Sample ID: 23-ACH-002

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-119

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 19:34

Client Sample ID: 23-ACH-003

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-120

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 19:30

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-004

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-121

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		100	433049	D1C	EET SEA	07/27/23 15:13

Client Sample ID: 23-ACH-005

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-122

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 21:01

Client Sample ID: 23-ACH-006

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-123

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 21:05

Client Sample ID: 23-ACH-007

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-124

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 21:17

Client Sample ID: 23-ACH-008

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-125

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 21:21

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-009

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-126

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 21:25

Client Sample ID: 23-ACH-010

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-127

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		150	432914	CL	EET SEA	07/26/23 13:57

Client Sample ID: 23-ACH-011

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-128

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 21:30

Client Sample ID: 23-ACH-012

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-129

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 15:29

Client Sample ID: 23-ACH-013

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-130

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 14:01

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-014

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-131

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 21:38

Client Sample ID: 23-ACH-015

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-132

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 21:42

Client Sample ID: 23-ACH-016

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-133

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 21:46

Client Sample ID: 23-ACH-017

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-134

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 21:50

Client Sample ID: 23-ACH-018

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-135

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 21:54

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-ACH-019

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-136

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 22:07

Client Sample ID: 23-ACH-020

Date Collected: 06/22/23 08:16

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-137

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 22:11

Client Sample ID: 23-GC-001

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-138

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 22:15

Client Sample ID: 23-GC-002

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-139

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 22:19

Client Sample ID: 23-GC-003

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-140

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432408	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 22:24

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-004

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-141

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 17:25

Client Sample ID: 23-GC-005

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-142

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 17:30

Client Sample ID: 23-GC-006

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-143

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 17:34

Client Sample ID: 23-GC-007

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-144

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 17:38

Client Sample ID: 23-GC-008

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-145

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 17:42

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-009

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-146

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 17:46

Client Sample ID: 23-GC-010

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-147

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 17:50

Client Sample ID: 23-GC-011

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-148

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 17:54

Client Sample ID: 23-GC-012

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-149

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 18:07

Client Sample ID: 23-GC-013

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-150

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 15:33

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-014

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-151

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 18:11

Client Sample ID: 23-GC-015

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-152

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 18:15

Client Sample ID: 23-GC-016

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-153

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 18:19

Client Sample ID: 23-GC-017

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-154

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 18:24

Client Sample ID: 23-GC-018

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-155

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 18:28

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-GC-019

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-156

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 18:32

Client Sample ID: 23-GC-020

Date Collected: 06/22/23 13:05

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-157

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 18:36

Client Sample ID: 23-LA-001

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-158

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		1000	433049	D1C	EET SEA	07/27/23 11:29

Client Sample ID: 23-LA-002

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-159

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432271	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		1000	433049	D1C	EET SEA	07/27/23 11:33

Client Sample ID: 23-LA-003

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-160

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432163	D1C	EET SEA	07/21/23 13:30
Total/NA	Analysis	1631B		500	432707	D1C	EET SEA	07/25/23 12:16

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-004

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-161

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 13:49

Client Sample ID: 23-LA-005

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-162

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432379	D1C	EET SEA	07/24/23 10:54
Total/NA	Analysis	1631B		100	432914	CL	EET SEA	07/26/23 13:53

Client Sample ID: 23-LA-006

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-163

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	433049	D1C	EET SEA	07/27/23 18:40

Client Sample ID: 23-LA-007

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-164

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 14:14

Client Sample ID: 23-LA-008

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-165

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 14:06

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-009

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-166

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432417	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 14:10

Client Sample ID: 23-LA-010

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-167

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 14:18

Client Sample ID: 23-LA-011

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-168

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 18:44

Client Sample ID: 23-LA-012

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-169

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 18:57

Client Sample ID: 23-LA-013

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-170

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		200	432914	CL	EET SEA	07/26/23 15:37

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-014

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-171

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 19:01

Client Sample ID: 23-LA-015

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-172

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 19:05

Client Sample ID: 23-LA-016

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-173

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 19:09

Client Sample ID: 23-LA-017

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-174

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 19:13

Client Sample ID: 23-LA-018

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-175

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 19:17

Lab Chronicle

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Client Sample ID: 23-LA-019

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-176

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 19:22

Client Sample ID: 23-LA-020

Date Collected: 06/26/23 08:40

Date Received: 07/07/23 09:40

Lab Sample ID: 580-129149-177

Matrix: Tissue

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Pre Prep	In House			430974	D1C	EET SEA	07/07/23 12:41
Total/NA	Prep	70:30 Acid Prep			432452	D1C	EET SEA	07/24/23 16:04
Total/NA	Analysis	1631B		400	433049	D1C	EET SEA	07/27/23 19:26

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Laboratory: Eurofins Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1631B	70:30 Acid Prep	Tissue	Mercury
ANAB		Dept. of Defense ELAP	L2236
ANAB		Dept. of Energy	L2236
ANAB		ISO/IEC 17025	L2236
California		State	2954
Florida		NELAP	E87575
Louisiana (All)		NELAP	03073
Maine		State	WA01273
			01-19-25
			01-19-25
			01-19-25
			07-07-23 *
			06-30-23 *
			07-01-24
			05-02-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1631B	70:30 Acid Prep	Tissue	Mercury
Montana (UST)		State	NA
			04-14-27

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1631B	70:30 Acid Prep	Tissue	Mercury
New Jersey		NELAP	WA014
			06-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1631B	70:30 Acid Prep	Tissue	Mercury
New York		NELAP	11662
			03-31-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1631B	70:30 Acid Prep	Tissue	Mercury
Oregon		NELAP	4167
US Fish & Wildlife		US Federal Programs	A20571
USDA		US Federal Programs	525-23-4-22573
			07-07-23 *
			06-30-23 *
			01-04-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1631B	70:30 Acid Prep	Tissue	Mercury
Washington		State	C788
Wisconsin		State	399133460
			07-13-23 *
			08-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-129149-1	21-GRC-001	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-2	21-GRC-002	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-3	21-GRC-003	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-4	21-GRC-004	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-5	21-GRC-005	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-6	21-GRC-006	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-7	21-GRC-007	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-8	21-GRC-008	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-9	21-GRC-009	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-10	21-GRC-010	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-11	21-GRC-011	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-12	21-GRC-012	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-13	21-GRC-013	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-14	21-GRC-014	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-15	21-GRC-015	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-16	21-GRC-016	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-17	21-GRC-017	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-18	21-GRC-018	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-19	21-GRC-019	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-20	21-GRC-020	Tissue	07/06/21 11:35	07/07/23 09:40
580-129149-21	21-GC-001	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-22	21-GC-002	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-23	21-GC-003	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-24	21-GC-004	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-25	21-GC-005	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-26	21-GC-006	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-27	21-GC-007	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-28	21-GC-008	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-29	21-GC-009	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-30	21-GC-010	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-31	21-GC-011	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-32	21-GC-012	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-33	21-GC-013	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-34	21-GC-014	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-35	21-GC-015	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-36	21-GC-016	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-37	21-GC-017	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-38	21-GC-018	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-39	21-GC-019	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-40	21-GC-020	Tissue	07/06/21 07:51	07/07/23 09:40
580-129149-41	23-GCL-001	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-42	23-GCL-002	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-43	23-GCL-003	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-44	23-GCL-004	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-45	23-GCL-005	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-46	23-GCL-006	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-47	23-GCL-007	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-48	23-GCL-008	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-49	23-GCL-009	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-50	23-GCL-010	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-51	23-GCL-011	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-52	23-GCL-012	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-53	23-GCL-013	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-54	23-GCL-014	Tissue	06/21/23 08:20	07/07/23 09:40

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-129149-55	23-GCL-015	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-56	23-GCL-016	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-57	23-GCL-017	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-58	23-GCL-018	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-59	23-GCL-019	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-60	23-GCL-020	Tissue	06/21/23 08:20	07/07/23 09:40
580-129149-61	23-GRC-001	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-62	23-GRC-002	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-63	23-GRC-003	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-64	23-GRC-004	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-65	23-GRC-005	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-66	23-GRC-006	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-67	23-GRC-007	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-68	23-GRC-008	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-69	23-GRC-009	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-70	23-GRC-010	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-71	23-GRC-011	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-72	23-GRC-012	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-73	23-GRC-013	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-74	23-GRC-014	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-75	23-GRC-015	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-76	23-GRC-016	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-77	23-GRC-017	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-78	23-GRC-018	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-79	23-GRC-019	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-80	23-GRC-020	Tissue	06/21/23 12:43	07/07/23 09:40
580-129149-81	23-GRF-001	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-82	23-GRF-002	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-83	23-GRF-003	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-84	23-GRF-004	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-85	23-GRF-005	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-86	23-GRF-006	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-87	23-GRF-007	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-88	23-GRF-008	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-89	23-GRF-009	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-90	23-GRF-010	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-91	23-GRF-011	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-92	23-GRF-012	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-93	23-GRF-013	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-94	23-GRF-014	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-95	23-GRF-015	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-96	23-GRF-016	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-97	23-GRF-017	Tissue	06/21/23 09:54	07/07/23 09:40
580-129149-98	23-ACG-001	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-99	23-ACG-002	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-100	23-ACG-003	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-101	23-ACG-004	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-102	23-ACG-005	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-103	23-ACG-006	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-104	23-ACG-007	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-105	23-ACG-008	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-106	23-ACG-009	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-107	23-ACG-010	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-108	23-ACG-011	Tissue	06/22/23 10:22	07/07/23 09:40



Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-129149-109	23-ACG-012	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-110	23-ACG-013	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-111	23-ACG-014	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-112	23-ACG-015	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-113	23-ACG-016	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-114	23-ACG-017	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-115	23-ACG-018	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-116	23-ACG-019	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-117	23-ACG-020	Tissue	06/22/23 10:22	07/07/23 09:40
580-129149-118	23-ACH-001	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-119	23-ACH-002	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-120	23-ACH-003	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-121	23-ACH-004	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-122	23-ACH-005	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-123	23-ACH-006	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-124	23-ACH-007	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-125	23-ACH-008	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-126	23-ACH-009	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-127	23-ACH-010	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-128	23-ACH-011	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-129	23-ACH-012	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-130	23-ACH-013	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-131	23-ACH-014	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-132	23-ACH-015	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-133	23-ACH-016	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-134	23-ACH-017	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-135	23-ACH-018	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-136	23-ACH-019	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-137	23-ACH-020	Tissue	06/22/23 08:16	07/07/23 09:40
580-129149-138	23-GC-001	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-139	23-GC-002	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-140	23-GC-003	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-141	23-GC-004	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-142	23-GC-005	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-143	23-GC-006	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-144	23-GC-007	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-145	23-GC-008	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-146	23-GC-009	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-147	23-GC-010	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-148	23-GC-011	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-149	23-GC-012	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-150	23-GC-013	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-151	23-GC-014	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-152	23-GC-015	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-153	23-GC-016	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-154	23-GC-017	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-155	23-GC-018	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-156	23-GC-019	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-157	23-GC-020	Tissue	06/22/23 13:05	07/07/23 09:40
580-129149-158	23-LA-001	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-159	23-LA-002	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-160	23-LA-003	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-161	23-LA-004	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-162	23-LA-005	Tissue	06/26/23 08:40	07/07/23 09:40

Sample Summary

Client: Tetra Tech, Inc.
Project/Site: Guadalupe River

Job ID: 580-129149-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-129149-163	23-LA-006	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-164	23-LA-007	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-165	23-LA-008	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-166	23-LA-009	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-167	23-LA-010	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-168	23-LA-011	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-169	23-LA-012	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-170	23-LA-013	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-171	23-LA-014	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-172	23-LA-015	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-173	23-LA-016	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-174	23-LA-017	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-175	23-LA-018	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-176	23-LA-019	Tissue	06/26/23 08:40	07/07/23 09:40
580-129149-177	23-LA-020	Tissue	06/26/23 08:40	07/07/23 09:40

Ship To:
Lilly-Anna LaCount
Eurofins-Frontier Global Sciences
5755 8th Street E
Tacoma, WA 98424
USA

Report to:
Dr. Ted Donn
Tetra Tech
3697 Mt. Diablo Blvd. Ste 150
Lafayette, CA
ted.donn@tetratech.com

Please report all results to the MDL J-flag results between MDL and RL
Please report results and invoice separately for each Project ID
Please report results in pdf format with Excel EDD deliverable

Method1 Method2

Therm. ID: Digit Cust. Seal: Ø / N
Uncorr./Corr. Temp: 25.67 °C
Delivery: UPS / FedEx / Other: UPS
Ice Type: Blue / Dry / Wet / None
Label Ver.: 12 Packing: B

Project	SampleID	Medium	Date	Time	Preservation	Hg-CVAFS-T-7030	Homogenize-T	Comments
T38272	21-GRC-001	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-002	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-003	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-004	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-005	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-006	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-007	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-008	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-009	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-010	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-011	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-012	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-013	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-014	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-015	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-016	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-017	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-018	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-019	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-020	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GC-001	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-002	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-003	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-004	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-005	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-006	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-007	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-008	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-009	Tissue	2021.07.06	7:51	Freeze	1	1	California roach

580-129149 Chain of Custody

Shipped on July 6, 2023

Relinquished by: Nichols Borton - McBean

Relinquished by:

Received by:

Received by:

2723 9720

7/31/2023

Ship To:
Lilly-Anna LaCount
Eurofins-Frontier Global Sciences
5755 8th Street E
Tacoma, WA 98424
USA

[illegible]

Requisitioned by:

Received by:

202 7/7/23 9:44

Ship To:
Lilly-Anna LaCount
Eurofins-Frontier Global Sciences
5755 8th Street E
Tacoma, WA 98424
USA

CHAIN OF CUSTODY

Report to:
Dr. Ted Donn
Tetra Tech
3697 Mt. Diablo Blvd. Ste 150
Lafayette, CA
ted.donn@tetratech.com

General Notes:

Please report all results to the MDL. Flag results between MDL and RL.
Please report results and invoice separately for each Project ID.
Please report results in pdf format with Excel EDD deliverable.

Method: Method2

Therm. ID: Digit Cust. Seal: 0/N
Uncorr./Corr. Temp: 25.6/25.6C
Delivery: UPS / FedEx / Other:
Ice Type: Blue / Dry / Wet / None
Label Ver.: Packing: B

Project	Sample ID	Medium	Date	Time	Preservation	Hg-CVAFS-1-7030	Homogenize-1	Comments
T38272	21-GRC-001	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-002	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-003	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-004	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-005	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-006	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-007	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-008	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-009	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-010	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-011	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-012	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-013	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-014	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-015	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-016	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-017	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-018	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-019	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GRC-020	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GC-001	Tissue	2021.07.06	11:35	Freeze	1	1	California roach
T38272	21-GC-002	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-003	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-004	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-005	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-006	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-007	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-008	Tissue	2021.07.06	7:51	Freeze	1	1	California roach
T38272	21-GC-009	Tissue	2021.07.06	7:51	Freeze	1	1	California roach

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2023 Samples

General Notes:

Please report all results to the MDL. J-flag results between MDL and RL
Please report results and invoice separately for each Project ID
Please report results in pdf format with Excel EDD deliverable

Method1 Method2

Project	SampleID	Medium	Date	Time	Preservation	Hg-CVAFS-T-7030	Homogenize-T	Comments
T38272	23-GCL-001	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-002	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-003	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-004	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-005	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-006	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-007	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-008	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-009	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-010	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-011	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-012	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-013	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-014	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-015	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-016	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-017	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-018	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-019	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GCL-020	Tissue	2023.06.21	8:20	Freeze	1	1	California roach
T38272	23-GRC-001	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRC-002	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRC-003	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRC-004	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRC-005	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRC-006	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRC-007	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRC-008	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRC-009	Tissue	2023.06.21	12:43	Freeze	1	1	California roach

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Relinquished by: Nicholas Branton-McBean
Relinquished by: [Signature]
Received by: [Signature]
9/7/23 5:44 PM
Retrieved by:

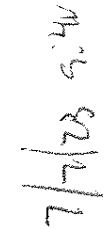
Ship To:
Lilly-Anna LaCount
Eurofins-Frontier Global Sciences
5755 8th Street E
Tacoma, WA 98424
USA

CHAIN OF CUSTODY

ted Donn
Tetra Tech
3697 Mt. Diablo Blvd. Ste 150
Lafayette, CA
ted.donn@tetratech.com

Project	SampleID	Medium	Date	Time	Preservation	Hg-CVAFS-T-7030	Homogenize-T	Comments
T38272	23-GRF-010	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-011	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-012	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-013	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-014	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-015	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-016	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-017	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-018	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-019	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-020	Tissue	2023.06.21	12:43	Freeze	1	1	California roach
T38272	23-GRF-001	Tissue	2023.06.21	9:54	Freeze	1	1	Black crapple
T38272	23-GRF-002	Tissue	2023.06.21	9:54	Freeze	1	1	California roach
T38272	23-GRF-003	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-004	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-005	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-006	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-007	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-008	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-009	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-010	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-011	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-012	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-013	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-014	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-015	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-016	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-GRF-017	Tissue	2023.06.21	9:54	Freeze	1	1	Largemouth bass
T38272	23-ACG-001	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-002	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-003	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-004	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-005	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-006	Tissue	2023.06.22	10:22	Freeze	1	1	California roach

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Project	SampleID	Medium	Date	Time	Preservation	Hg-CVAFS-T-7030	Homogenize-T	Comments
T38272	23-ACG-007	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-008	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-009	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-010	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-011	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-012	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-013	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-014	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-015	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-016	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-017	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-018	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-019	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACG-020	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACH-001	Tissue	2023.06.22	10:22	Freeze	1	1	California roach
T38272	23-ACH-002	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-003	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-004	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-005	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-006	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-007	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-008	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-009	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-010	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-011	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-012	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-013	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-014	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-015	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-016	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-017	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-018	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-019	Tissue	2023.06.22	8:16	Freeze	1	1	California roach
T38272	23-ACH-020	Tissue	2023.06.22	8:16	Freeze	1	1	California roach

Page 240 of 243

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2022 2/2/23

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Eurofins-Frontier Global Sciences
5755 8th Street E
Tacoma, WA 98424
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CHAIN OF CUSTODY

Ref: ...
Dr. Ted Donn
Tetra Tech
3697 Mt. Diablo Blvd. Ste 150
Lafayette, CA
ted.donn@tetratech.com

Project	SampleID	Medium	Date	Time	Preservation	Hg-CVAFS-T-7030	Homogenize-T	Comments
T38272	23-GC-001	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-002	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-003	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-004	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-005	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-006	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-007	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-008	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-009	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-010	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-011	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-012	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-013	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-014	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-015	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-016	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-017	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-018	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-019	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-GC-020	Tissue	2023.06.22	13:05	Freeze	1	1	California roach
T38272	23-LA-001	Tissue	2023.06.26	8:40	Freeze	1	1	California roach
T38272	23-LA-002	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-003	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-004	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-005	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-006	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-007	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-008	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-009	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-010	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-011	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-012	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-013	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass
T38272	23-LA-014	Tissue	2023.06.26	8:40	Freeze	1	1	Largemouth bass

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7/31/23

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[illegible]

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 Received by:

Login Sample Receipt Checklist

Client: Tetra Tech, Inc.

Job Number: 580-129149-1

Login Number: 129149

List Source: Eurofins Seattle

List Number: 1

Creator: LaCount, Lilly-Anna E

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX E

RESPONSE TO REGIONAL BOARD COMMENTS

Response to Comments on Draft-Final “Coordinated Monitoring Program for Guadalupe River Watershed Mercury TMDL”

Number	Page	Comment	Tetra Tech Response
Regional Board Comments			
Major Edits			
1	37	Referring to Table 3-16, as Lester McKee noted in his review of the report, the loads for Storm A and B are drastically smaller than what was originally computed in the 2018-2019 Water Year Interim Monitoring Report written by Tetra Tech. The estimated storm loadings in the 2019 report were 3.5 kg and 19.9 kg, for Storm A and B respectively. However, in this report the loadings are 1.6 kg and 5.9 kg, for Storm A and B respectively. Can you please provide an explanation why the drastic decrease in these estimates? What specifically about the new data for Storm C and D changed the calculations for Storm A and B? In other words, was it the regression relationship that changed, please provide details.	Thank you for identifying this issue. We have reviewed the calculations in detail. There was an error in converting units between cubic feet and liters. This has been corrected and loading estimates updated. This correction accounts for the differences. Also, in the interim 2019 report, the relationships between TSS vs. flow and total mercury vs. flow were specified as linear relationships, not a power relationship as in the present report. Estimates in the 2019 report were based only on the TSS-flow relationship and mercury-flow relationship for the 2019 storms. In the cumulative report, the TSS-flow relationship was based on all 4 storms. Please refer to Figure 3-15 and Figure 3-13.
2	38	Table 3-17 - After downloading the USGS data for 15-minute flow intervals and using the regression equations for all the water years in this study, the estimated loadings for each water year do not reconcile. When comparing the calculated sediment loads versus those reported by USGS from 2019-2022, the loads were low by as little as 20% and low by as much as 8-fold in other cases. When using the regression equations 1-3 provided in Section 3.1.3, the estimated loadings in Table 3-17 are about 65-75% lower than our calculations, as shown in the	See the above response. We have extensively reviewed all calculations and have addressed the unit conversion issue in the Final report. Please refer to our specific responses to SFEI comments.

Number	Page	Comment	Tetra Tech Response
		attached Excel spreadsheet, for each water year. Please see Lester's comments for Section 3.1.4 in the pdf document for more information. Please revisit the Load Calculations section to recalculate the loadings to verify the values. If you do not agree with the load calculations shown in the attached spreadsheet, please reach out for a discussion so we can discover why we are getting different numbers. Alternatively, if your calculations are incorrect and you agree with our calculations, go ahead, and revise the report accordingly with our calculations.	
3	51	"California roach from Los Gatos Creek at Lincoln Ave (the reference site) and from Guadalupe River at Coleman Ave (the most downstream site) had similar mercury concentrations that were close to the TMDL target of 50 ng/g (wet wt) for fish between 50 and 150 mm (Figure 3-27)." After reading this for the first time I was led to believe that the reference site and most downstream site had lower fish Hg concentrations overall. However, this is a bit misleading. After looking at Appendix C, I see that a large percentage of the fish samples for those sites are smaller than the fish length included in the TMDL (<50-150 mm). For example, 9 of the 20 California roach for GRC 2019 are less than 50mm, 11 of the 20 California roach for GCL 2021 and 19 out of 20 of the California roach for GRC 2021 are less than 50mm. This similar situation applies to the 2023 data for both sites. Please add text in the fish section to address: (1) the fish that were below the size range specified for the TMDL, and (2) the conclusions made regarding the lower fish	The text has been edited to state that the majority (73%) of the California roach sampled were less than 50 mm fork length and therefore comparisons to TMDL targets should be interpreted with caution. The size distribution of California roach was similar at all stream sites. We have added a discussion referencing the typical maximum size of adult California roach (~83 mm) as this may affect the ability of the monitoring program to assess compliance using this species. Given the young age and small size of the California roach, no relationship between mercury concentrations and fork length could be identified at any stream location. Therefore, comparisons between mercury concentrations in California roach at stream sites are appropriate. AECOM collected California roach from the same sites in 2016. However, the AECOM (2017) report only provides fish weights, not lengths. The weights

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		concentrations at these sites. We do acknowledge the sampling plan mentioned that California roach were hard to find above 50mm. Since the current dataset contains many fish that are < 50mm the relative difference in Hg concentrations is valid. However, statements about meeting the TMDL targets or comparisons over time need to be made with caution. Does Valley Water have the total length or fork length for previous samples, and is it safe to say this current size distribution is similar or different from past years? If it is similar, then more certainty can be applied to trend analyses.	reported in that report are similarly distributed to the fish from the present study. Therefore, comparisons between the two studies are valid.

Minor Edits			
1	7	Please confirm if multiple samples were obtained, and all combined in a single carboy which was then subsampled in the lab. Is there a reasoning or explanation for this new method? The original sampling plan from 2018 stated 1-L jars would be used for sampling, this would have been more appropriate to have separate samples for TSS and Hg to avoid any contamination.	The intent of compositing multiple D95 casts was to ensure that all analytical samples would represent the same volume of water. The 2018 sampling plan indicates that multiple D95 casts would be composited to obtain sufficient water to collect all samples (see pages 3-10 and 3-11 of the Monitoring Plan).
2	9	Please fix “Lavinia symmetricus) (age+1)” to “(Lavinia symmetricus, age+1)” to be consistent with “Micropterus salmoides, age 0+”).	Edited as requested.
3	9	In the text it states that the target size class for given fish species was 50-150 mm fork length. However, a large percentage of fish samples fall outside the range. Please clarify the actual target size class according to the monitoring plan. Also please confirm throughout the report if fish length is actually fork length or total length.	Please see response to Edit 1. All fish lengths are reported as fork length.

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4	12	Typo on the second line: “lading” should be “loading”.	Edited as requested.
5	Figure 3-1	Thanks a lot for adding the sampling points onto the actual hydrograph! Looks great.	Thank you.
6	Figure 3-6	Great job on the field sampling!	Thank you.
7	22	Please add the second parenthesis in the last paragraph: “(Figure 3-10)”.	Edited as requested.
8	24	Typo on the second line: “atat” should be “at”.	Edited as requested.
9	24	Third to last line, “The6-hour” should be “The 6-hour”.	Edited as requested.
10	Figure 3-12	Nice figure with lots of information. Is there any way to increase the font size of the smallest correlations? Some of the values are so small that they are not legible.	The original figure design was to make the font size proportional to the magnitude of the correlation coefficient. The figure was edited to make font sizes the same.
11	35	Please add the second parenthesis in the second paragraph: “(Figure 3-19)”.	Edited as requested.
12	39	Typo, please add a period in the second line: “load estimates. However...”	Edited as requested.
13	Section 3.1.4 (Page 37)		No comment provided.
14	Figure 3-22 (Page 42)	Please fix the text inside the figure to correspond to the actual citation: “McKee et al. (2004).”	Correction was made as requested.
15	Section 3.1.5.3 (Page 42)	For this section regarding Total Mercury and TSS relationships among the different studies, please refine the text considering Lester McKee’s comments for this section. In addition, add more text to remind the readers of the causal factors involved	The text has been edited in response to SFEI comments # 28 and 29 (below).

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		with the flatter relationship for the AECOM (2017) data.	
16	Section 3.1.5.4 (Page 43)	Please revise “significant differences among studies” based on Lester’s comments in this section. Best to revise the wording to, “significant differences among water years depending on climate.” In addition, please revise the second paragraph to add that the results were also consistent with McKee et al. (2018), and the importance that this value has in regards of estimating Hg loads (see Lester’s comments in the pdf).	The text has been edited as requested. Please refer to responses to SFEI comments #30 and 31 (below).
17	45	Typo, “Photographs of field sampling activities are provided in Appendix C.” I think this should be Appendix B.	Edited as indicated.
18	Table 3-24 (Page 48)	I believe that Total Length should be in “mm” not “cm.” Please correct this.	Edited as indicated.
19	49	Typo, “(length is not evident..” please remove that first parenthesis.	Edited as indicated.
20	49-50	“Mercury concentrations tended to be higher in LMB than other species analyzed.” I think it is also important to note that some California roach also have similar concentrations to LMB. I highlighted a red rectangle on Figure 3-26 that shows some California roach concentrations fall in a similar range as LMB. Include some text to clarify this statement.	Text was edited to indicate that there was some overlap in tissue mercury concentrations between largemouth bass and other species.
21	56	Please add a period on the third to last line: “between storms. Suspended...”	Edited as indicated.
22	-	In the summary section, please include text to underscore the importance of collecting fish in the adequate size range. In addition, we cannot conclude	A discussion of obtaining fish within the target size range in order to assess compliance with TMDL targets has been added.

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		that the most downstream sampling location and reference site were similar to the TMDL target because these fish are not in the adequate size range.	Given that the typical maximum length of the California roach is 83 mm (Froese and Pauly 2023), it may not be possible to obtain fish within the target size range (50mm – 150mm) and age (1+) in order to assess TMDL compliance.
23	-	Lastly, please add bookmarks to the report so the reader can quickly jump to different sections.	Bookmarks have been added to the final pdf file.
-	-	Overall, the report was easy to read, and the results were clear. The figures were great! Kudos to the field team for their hard work and making this study possible.	Thank you.

SFEI – Lester McKee Comments			
1	-	Dear Tt team. Overall a nice report and I am so glad to see this additional well organized and well collected data. I only reviewed the loads section thoroughly but skimmed the fish data out of curiosity. Nice work. Although I do have quite a few questions and comments in relation to inconsistencies I see in the various loads estimates, please take these as a sign of my intense interest in the data you have collected. They reflect my passion for watershed and how I remain hopeful that the regulatory process in place and stakeholder group efforts to remove Hg waste can and will eventually result in a water quality improvement. As such, I was hoping to see a more robust trend analysis perhaps following the method	Thank you.

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		we developed in the 2018 report. I thought perhaps by now we might start to see a trend. Thanks for you hard work. Please take my comments as trying to be helpful and I am open to a conference call if you want to have some follow up. Regards Lester McKee (Senior Scientist, SFEI)	
2	7	Maybe this occurred but it would have been preferable to collect a separate sample for TSS in the field and have that whole sample processed by filtration rather than subsampling from a carboy later in the lab since subsampling is a tricky business unless the lab used a splitter which is usually not so easy for Hg for contamination reasons.	Sampling was consistent with the methods described in the approved Monitoring Plan. Typically, three to four casts with the D95 sampler were conducted and the volumes composited in a carboy. The volume was then thoroughly mixed to ensure that all analytical samples were representative of the same water volume. Separate aliquots were then collected for each analytical method.
3	Table 2-2	High MDL, RDL for TSS. I would have expected 1 mg/L was quite achievable but probably all samples were >10 so probably not a problem.	All data were validated, and no issues were identified. As noted, the reported TSS concentrations were substantially above the MDLs.
4	8	The best approach is to use a hybrid. For parts of the time period of interest when one method is deemed most reliable, use that one, for other time periods use another and then sum the results together for the season or year. Given the complexity of the watershed, no one method was ever found to be reliable all the time. It OK to be selective if there is a justification for that.	Comment noted. Use of multiple methods within the calculation of loading appears to be rather subjective. We have opted or using a consistent method throughout the water year, but have included multiple approaches.

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5	Figure 3-6	Well done on your field sampling - well done!	Thank you.
6	Table 3-6	Close but not quite. Note if this has occurred after another storm that had exceeded 2 inches, this might have been enough to trigger a Hg release event but might is the operative word... I have only even seen releases reliably beyond 2 inches...	Tetra Tech followed the mobilization criteria shown in Table 2-1 and Figure 2-1 when determining which storms to sample. Key factors included year-to-date rainfall and status of Almaden Reservoir which had to be met prior to sampling a storm. Mobilization criteria for each sampled storm are provided in Table 3-5. Review of the historical data from the ALERT gages indicates that 6-hour rainfall totals in excess of 2.0 inches occurred prior to Storm A at the Guadalupe gage on January 16 and 17, and at the Mt Umunhum gage on January 6 and January 16. Storm A began on February 3.
7	Table 3-7	Ha - is this a coincidence that its the same magnitude as the last one?	Coincidence. We have reviewed the data and determined this to be correct.
8	Table 3-8	Bummer - still not a big storm.	Prior to Storm C, there were 6-hour rainfall totals in excess of 2 inches on December 10 and December 31 at the Mt Umunhum gage, Almaden gage, and Guadalupe gage. Storm C began on 4 January.
9	Table 3-9	Cool - now I am really curious to see the Hg data! But antecedent conditions were unremarkable - yes exceeded a minimum threshold for upper watershed flow but the watershed would really not be wet up and reservoirs would be pretty empty as a result of little flow for the season to-date.	Storm D began on January 9. Total rainfall prior to that date was: Alamitos – 13.88 inches Almaden – 30.04 inches Guadalupe – 31.56 inches Mt. Umunhum – 37.68 inches Vasona Pump – 16.76 inches Please refer to Table 3-4 and Figure 3-5. Almaden Reservoir reached 100% capacity on December 31,

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			and subsequently discharged. Almaden reservoir was at 99.5% capacity on 9 January.
10	26	OK - this looks like a Hg release event from the mines.	The maximum particulate mercury concentrations occurred during Storm A. See comment on Table 3-6.
11	26	We got an arithmetic average of 6.3 in 2017.	Noted. Suggests that particulate mercury concentrations are relatively consistent.
12	26	This is higher than we measured in 2017 but that was a bigger storm series so this makes sense.	Noted.
13	Table 3-10	I am surprised to see a high particle concentration so early in the storm. I worry about the TSS method generating less reliable data and data that is biased low when there is coarser sand in the carboy that cannot be subsampled reliably. But this could just be a urban source or a remobilization source.	The intent of compositing multiple D95 casts was to ensure that all analytical samples collected at a single point in time would represent the same volume of water. Water in the carboy was thoroughly mixed while collecting samples for analysis. No visible difference in turbidity between subsamples was seen during collection.
14	Table 3-11	Generally these particle concentrations are not following the pattern I would expect - lower earlier in the hydrograph when flow is from the urban area and greater on the falling stage when flow is from the mining areas. This leads me to question the reliability of the TSS data due to subsampling a larger 3L sample.	We consider these estimates to be valid. Care was taken to ensure that the composited sample was thoroughly mixed during subsampling. Alternatively, mercury transport may be coming from the entire watershed, not primarily from reservoir discharges. Due to the amount of time since the mines were operational, it is likely that mercury has been distributed throughout the watershed.
15	Table 3-11	This does not look like a Hg release event - I would expect concentration to rise or at least not decrease so much on the falling stage.	Comment noted. Tetra Tech made every effort to meet mobilization criteria and to sample the largest storms during the monitoring period.

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16	Table 3-11	Flow-weighted mean concentration for storm D was 1416 ng/L. If this is combined with an annual total flow of in excess of the so far published flow (195 million meters cubed) = 276 kg. See later comments about load estimates.	Revised calculations, based on 15-minute flows, yield an annual load for the 2023 water year of 100 kg (Table 3-17).
17	Figure 3-12	These are some of the stronger correlations I have seen between flow, TSS, and HgT for this system.	Noted.
18	37	I am OK with this method but its not the same as used in the McKee et al., 2018 report. We used linear interpolation between samples to estimate 15 minute concentrations which were then multiplied by 15 minute flows. We secondarily used a FWMC method but suggested this was less favorable.	Comment noted.
19	Table 3-16	These loads for storm A and B are much smaller than computed by Tt2019. You might like to comment why. But in addition see more comments below as overall I think we could argue that WY 2019 was likely to have transported much more Hg - it was a large flow year with large sediment loads.	The calculations were reviewed and have been calculation errors corrected in the Final report. The error was associated with the conversion from cubic feet to liters. Please refer to the Regional Boards Major Comment 1.
20	Table 3-17	In the 2019 Tt report, the load reported for two storms in February was 23.4 kg. So it would be worth explaining how the load for the whole of WY 2019 was just 15.86 kg. In addition, WY 2019 was a large flow year when rainfall intensity of 2 inches in 6 hours was exceeded in the January storm series. Your estimate of 23.4 kg seems low. The load estimate for WY 2023 is likely very underestimated also. Flow during WY 2023 was 195 million cubic meters for the currently published period through to April 2023. No sediment loads data are yet published by USGS but based on historic loads, I would	See previous response.

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		estimate the sediment load to have been about 50,000 metric t. $50,000 \times 6 \text{ mg/kg} = 300 \text{ kg Hg}$. Again this would be a lower bound of the Hg load estimate because if there was a Hg release from the mines in the two later January storms and or in the March storm series, the particle concentrations would have been higher than 6 mg/kg.	
21	Table 3-17	I downloaded the USGS data for 15 minute flow and used your regression equations for the 5 water years (note whole water years not just wet seasons) and got loads of (Two step, direct, TSS (metric t): WY 2019: 47 kg, 42 kg, 7638 t (USGS reported 12006 t) WY 2020 6 kg, 2 kg, 262 t (USGS 2127 t) WY 2021 5 kg, 3 kg, 443 t (USGS 1208 t) WY 2022 7 kg, 5 kg, 908 t (USGS 1131 t) WY 2023 103 kg, 97 kg, 18631 t (USGS didn't report but as mentioned, based on my regression estimate it was probably close to 50,000 t) Typically >90% of the loads occur during the wet season so I am wondering if there were some problems with your loads computations spreadsheets. The TSS loads computed from your regression eqn 2 are all bias low relative to the USGS published loads.	See previous responses. Discrepancies were associated with a conversion factor, which has been corrected in the Final report. The revised annual loading estimates in the Final report are similar to your calculations.
22	38	Bummer - I did not know this have been discontinued. I would have continued to argue for continuation had I found out in time. WY 2023 was an important year for the south and east Bay watersheds with very high flow volume outputs via many accumulated small to medium size events. Frustrating!	Comment noted. No response necessary.

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23	Table 3-19	These loads for WY 2019 seem much more reasonable. The USGS reported a suspended sediment load of 13,237 US tons for the wet season. This is equivalent to 12,006 metric t. Your average particle concentration is similar to many other estimates including many by SFEI. So if we take 6 mg/kg and multiply it by 12,000 t we get 72 kg. That would be a minimum load for that year. If indeed there was a Hg release event in January, load would be higher and there were more storms in later February and March that may have additively kept the Hg transport system going so 72 kg would seem to be a lower bound. If you had used the turbidity surrogate method you would have estimated close to 70 kg.	Comment noted. Our revised storm loading (Table 3-16) and annual loadings (Table 3-17) are slightly lower than the results presented in Table 3-18 and Table 3-19 based on USGS daily TSS loads.
24	39	Yes - I would expect every year we would get a slightly different slope due to how the prevailing climate for that year interested with the urban and mining sources.	Comment noted. Agreed.
25	39	Yes - Rainfall intensity did not exceed the 2 in/6 hr threshold in WY 2023 but with only 7.6 inches of rainfall year-to-date, it appears there was no Hg release event. So yes, Hg would have come from urban runoff and in-channel remobilization and likely not much is any new Hg pulse from the mining sources. As stated above, if you estimate sediment load for WY 2023 via regression, you get an estimate of around 50,000 metric t which would cause an estimate of around 300 kg Hg assuming 6 mg/kg. I think this is a better method not because its higher but because the estimate of 35 kg causes a back calculation of particle concentration that is too	Whereas rainfall intensity during Storm C in 2023 did not exceed 2 inches per 6 hours, peak rainfall intensity during Storm D did. In addition, antecedent storms during both Water Years 2019 and 2023 exceeded 2 inches per 6 hours. Please refer to revised discussion in Section 3.1.1. Figure 3-2 and Figure 3-4 provide cumulative rainfall for Water Years 2019 and 2023 respectively.

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		unreasonable - $35/50 = 0.71$ mg/kg - nobody has ever seen particle concentrations that low in Guadalupe. I strongly suggest thinking through this logic and coming up with robust and defensible loads estimate for WY 2019 and WY 2023.	A unit conversion error was identified and corrected in the revised report. Revised estimates are consistent with your estimated values.
26	40	We would expect differences among surveys based on the type of climate and how it interacts with the urban and mining sources in the watershed.	Comment noted.
27	Figure 3-22	McKee et al., 2003 not in the reference list but I suspect this is supposed to be 2004. I did not write a 2003 report - we only started sampling there in WY 2003 so the first report was 2004.	Label in figure has been corrected.
28	42	Again this wording suggest there is some how a disparity between studies that is caused by differing opinions. If that is not intended then that OK. But I have reviewed all the study reports and have always been reasonably content with the data quality and the loads estimated. The differences between studies are not to do with differences in opinion but rather to do with differences in the way climate interacts with the Hg sources and mobilizes Hg. Some years have very high Hg loads relative to flow and sediment loads when lots of intense rainfall occurs in the mining area.	The wording was not intended to characterize a difference in opinion. Rather, it refers to a “statistically significant” difference. “Studies” has been changed to “water years”. Text has been edited to address climatic differences.
29	42	Yes - because WY 2015 was a drought year at the end of one of the worst 4 year droughts in Bay Area history. I suggest that more effort be made to remind the readers of the causal factors involved.	Text has been edited as recommended.
30	43	Better to read among water years depending on climate. By saying studies, you are indicating at least to some readers that the differences may be due to differences in opinion on how to interpret the data.	Text has been edited as recommended.

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		The differences are driven by climate for each water year.	
31	43	and consistent with McKee et al 2018. But the point is 6 mg/kg is a pretty good estimate of the concentration on sediment and so it can be combined with estimates of annual sediment loads published by USGS to get a good starting estimate of Hg load that is sometime a low estimate for years where rainfall intensity is higher and a Hg release occurs from the mining area.	Text has been edited as recommended.
32	44	I think this is a good summary but I wish you had attempted a trend analysis based on the method McKee et al., 2018 had proposed. The question is have the loads started trending down yet in relation to the great work that has been done to remove a bunch of the Hg sources.	Thank you.
33	55	Agreed - strong climatic influence.	Comment noted.
34	56	I would suggest these are more robust because they honor the years and decades of measurements of Hg concentration on sediment particles that suggest the concentration of about 6 mg/kg is reasonable.	Comment noted.
35	56; Q1	I think these are low and need to be revised based on a sediment method. see previous comments.	Edited based on revised calculations. Results are more similar.
36	56; Q2	The method for trends analysis proposed in McKee et al., 2018 could be further explored and possibly used to estimate the portion coming from urban v mining areas.	Comment noted. No change made.
37	57	This was done in the late 90s by Russ Flegal's PhD students. So there is published data to base a repeat survey on and do a direct trends analysis. The problem is sediment deposition patterns change so it might not work too well.	Comment noted. No change made.

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		In general, I agree that based on this metric there is still no evidence of a trend, however I argue for a more sensitive trends indicator in the 2018 report. Its really hard to measure a trend on something so ephemeral as the rare Hg releases that occur. So we have to be innovative about how we interpret the great data we have including this great new data contribution in this report.	
38	58	I am excited you have a copy of our paper. But I do not see it referenced in the body of the report. I wonder what you wanted to say in relation to this paper?	The data in the 2017 paper were cited in Section 3.1.5.5 and used in Figure 3-25 in the discussion of trends.