TECHNICAL MEMORANDUM

To:	Rio Hondo/San Gabriel River Water Quality Group Permittees
From:	Jason Pereira
Date:	December 22, 2020
Subject:	**Coordinated Integrated Monitoring Program Implementation Reporting Year 2019-2020 Wet-Weather Monitoring Event #4 Summary**

1. Mobilization Preparations

On June 29, 2015, the Los Angeles Regional Water Quality Control Board (LARWQCB) Executive Officer approved the May 11, 2015, Revised Rio Hondo/San Gabriel River Water Quality Group (RH/SGR WQG or Group) Coordinated Integrated Monitoring Program (CIMP) and on July 1, 2015, the Amended 2012 Municipal Separate Storm Sewer System (MS4) Permit was posted to the LARWQCB website. While the installation of continuous stormwater sampling equipment appurtenances is planned, the approved CIMP and MS4 Permit, Attachment E, Section VIII.C.2 allows for wet-weather water quality grab samples to be collected as three-hour, 20-minute interval, ten-aliquot, flow-weighted, composite samples, when necessary.

On Sunday morning, March 8, 2020, National Weather Service (NWS) forecasts were for a qualifying rainstorm event to begin within 48 hours with probabilities of 100 percent and a maximum rainfall depth of 0.66 inches, capable of generating runoff. Preliminary mobilization activities such as staff notification, equipment preparation, sample container preparation, and a pre-event objectives meeting were initiated. CWE sampling teams were pre-scheduled to leave Fullerton at 09:00 hours on Tuesday, March 10, 2020, pick up ice for sample preservation in transit, and arrive at respective RH/SGR monitoring locations by 10:00 hours. Despite the forecast, flows in the San Gabriel River Watershed were not above 20% base flow, a required condition to conduct stormwater sampling. Therefore, during March 10, 2020, samples were only collected and analyzed within the Rio Hondo Watershed.

On Wednesday morning, March 11, 2020, NWS forecasted the continuation of the same qualifying rainstorm event as having probabilities of 70 percent and a maximum rainfall depth of 0.48 inches within 24 hours. Preliminary mobilization activities occurred, and CWE sampling teams were pre-scheduled to leave Fullerton at 12:00 hours on Thursday, March 12, 2020 to arrive at San Gabriel River monitoring locations by 13:00 hours. Samples were only collected and analyzed within the San Gabriel River Watershed during the March 12, 2020, sampling event.

2. Monitoring Locations

The RH/SGR WQG Long-Term Assessment (LTA) and Total Maximum Daily Load (TMDL) Receiving Water monitoring locations are shown in **Figure 2-1** and were further characterized in the LARWQCB, Executive Officer, approved CIMP. For this wet-weather event, ten-aliquot, three-hour, composite water quality samples were collected at the following monitoring locations summarized in **Table 2-1**. The LARWQCB approved RH/SGR WQG CIMP Stormwater Outfall monitoring locations are shown in **Figure 2-2** and **Table 2-2**.

Table 2-1 LTA and TMDL Receiving Water Monitoring Locations

Monitoring Type	Monitoring Location	Coordinates	
		Latitude	Longitude
Receiving Water			
LTA	RH3_ARC	34.089836	-118.033828
	LDW_BDW	34.099445	-117.926766
TMDL	SAN_DD	34.106200	-118.016150
	SAW_PR	34.106140	-118.006921

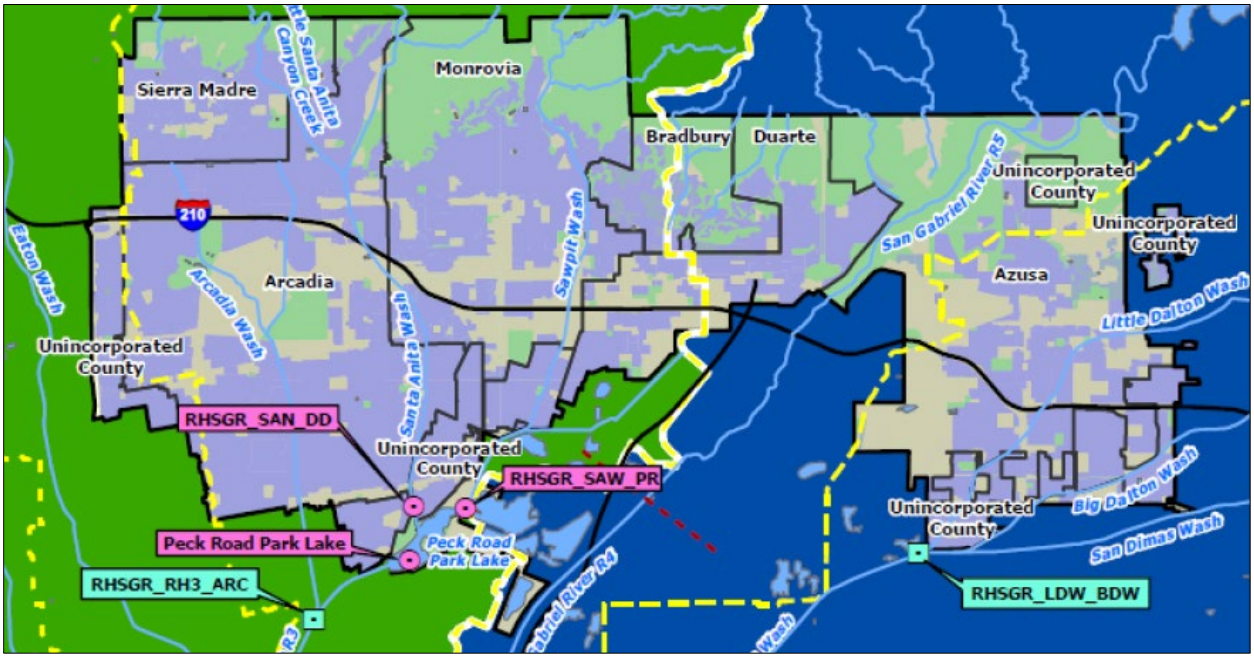

Figure 2-1 LTA and TMDL Receiving Water Monitoring Locations

Table 2-2 Stormwater Outfall Monitoring Locations

Monitoring Location	Coordinates	
	Latitude	Longitude
Stormwater Outfall		
PRD	34.115540	-118.001550
BRD	34.137830	-117.955760
ALA	34.127493	-118.039913
BLC	34.110580	-117.890450
BCD	34.143810	-117.931490

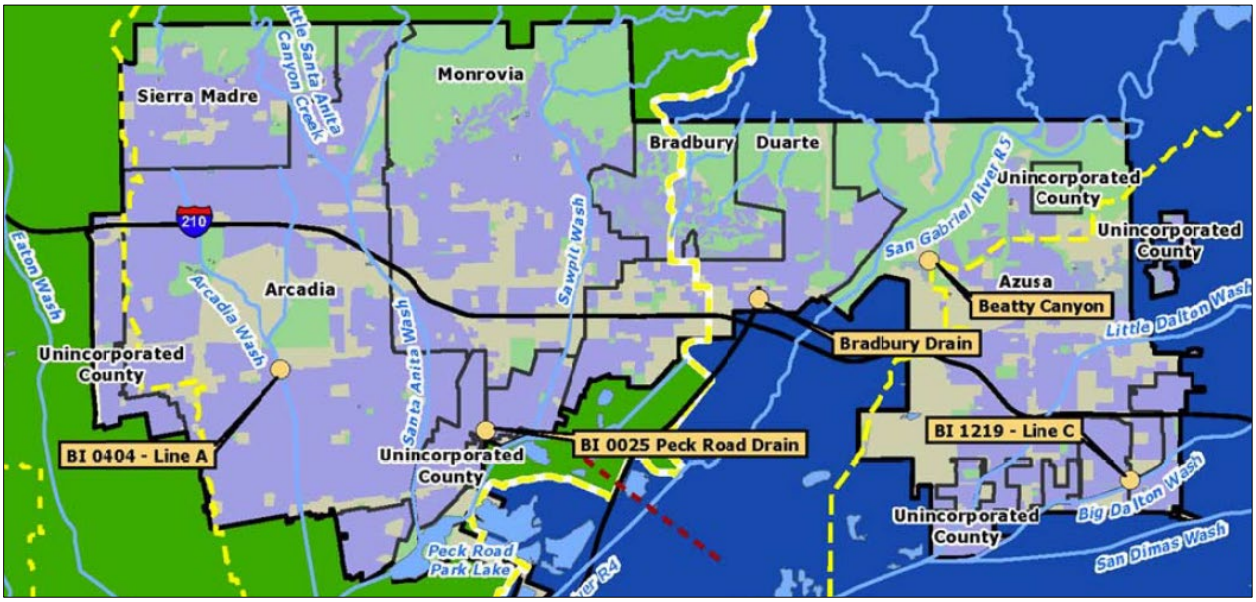

Figure 2-2 Stormwater Outfall Monitoring Locations

3. Regional Event Summary

The storm event was forecast as qualifying, predicting at least 0.25 inch of cumulative rainfall, at probabilities exceeding 70 percent. Precipitation and flow characteristics are provided in the subsections below as observed at the Los Angeles County Public Works (LACPW) ALERT rain gage #473 (Mount Olive High School), United States Geological Survey (USGS) Stream Gage Rio Hondo Above Whittier Narrows Dam USGS Stream Gage, and San Gabriel River Below Santa Fe Dam USGS Stream Gage.

3.1 Rainfall Characteristics

Rainfall data obtained from the LACPW ALERT rain gage #473, Mount Olive High School, located near the centroid of the RH/SGR WQG area, the BRD Stormwater Outfall monitoring location, the Bradbury Channel Stream Gage, and the I-605 and I-210 freeway junction, was used to summarize the precipitation information for the RH/SGR WQG. **Table 3-1** summarizes in the first data rows that this gage reported no measurable precipitation for over 72 hours prior to the start of this monitoring event. The storm produced 3.29 inches of rain.

Table 3-1 LACPW ALERT Gage #473 Mount Olive High School

Date	Time	Increments	Storm Inches	Season Inches	Event Tasks
03/06/2020	22:00	0.00	0.00	9.03	72 hours prior to the start of WWE#4
03/09/2020	22:00	0.00	0.00	9.03	
03/09/2020	23:57	0.01	0.01	9.04	Start of WWE#4
03/10/2020	00:45	0.01	0.02	9.05	
03/10/2020	01:08	0.01	0.03	9.06	
03/10/2020	02:58	0.01	0.04	9.07	
03/10/2020	03:49	0.01	0.05	9.08	
03/10/2020	03:58	0.01	0.06	9.09	
03/10/2020	04:14	0.01	0.07	9.10	
03/10/2020	04:51	0.01	0.08	9.11	
03/10/2020	04:57	0.01	0.09	9.12	
03/10/2020	05:02	0.01	0.10	9.13	
03/10/2020	05:13	0.01	0.11	9.14	
03/10/2020	05:19	0.01	0.12	9.15	
03/10/2020	05:28	0.01	0.13	9.16	
03/10/2020	06:03	0.01	0.14	9.17	
03/10/2020	06:22	0.01	0.15	9.18	
03/10/2020	06:26	0.01	0.16	9.19	
03/10/2020	06:28	0.01	0.17	9.20	
03/10/2020	06:30	0.01	0.18	9.21	

Date	Time	Increments	Storm Inches	Season Inches	Event Tasks
03/10/2020	06:37	0.01	0.19	9.22	
03/10/2020	06:40	0.01	0.20	9.23	
03/10/2020	06:43	0.01	0.21	9.24	
03/10/2020	06:49	0.01	0.22	9.25	
03/10/2020	07:03	0.01	0.23	9.26	
03/10/2020	07:08	0.01	0.24	9.27	
03/10/2020	07:19	0.01	0.25	9.28	
03/10/2020	07:35	0.01	0.26	9.29	
03/10/2020	07:51	0.01	0.27	9.30	
03/10/2020	08:09	0.01	0.28	9.31	
03/10/2020	08:12	0.01	0.29	9.32	
03/10/2020	08:18	0.01	0.30	9.33	
03/10/2020	08:38	0.01	0.31	9.34	
03/10/2020	09:54	0.01	0.32	9.35	
03/10/2020	10:00	0.00	0.32	9.35	SAW_PR and SAN_DD sampling start time
03/10/2020	10:10	0.00	0.32	9.35	PRD sampling start time
03/10/2020	11:00	0.00	0.32	9.35	RH3_ARC and ALA sampling start time
03/10/2020	13:00	0.00	0.32	9.35	SAW_PR, SAN_DD, and ALA sampling end time
03/10/2020	13:10	0.00	0.32	9.35	PRD sampling end time
03/10/2020	13:15	0.01	0.33	9.36	
03/10/2020	13:16	0.01	0.34	9.37	
03/10/2020	13:16	0.01	0.35	9.38	
03/10/2020	13:19	0.01	0.36	9.39	
03/10/2020	13:20	0.00	0.36	9.39	RH3_ARC sampling end time
03/10/2020	13:26	0.01	0.37	9.40	
03/10/2020	13:27	0.01	0.38	9.41	
03/10/2020	13:28	0.01	0.39	9.42	
03/10/2020	13:31	0.01	0.40	9.43	
03/10/2020	13:32	0.01	0.41	9.44	
03/10/2020	13:35	0.01	0.42	9.45	
03/10/2020	13:37	0.01	0.43	9.46	
03/10/2020	13:38	0.01	0.44	9.47	
03/10/2020	13:40	0.01	0.45	9.48	
03/10/2020	21:00	0.00	0.45	9.48	
03/11/2020	00:00	0.00	0.45	9.48	
03/12/2020	00:00	0.00	0.45	9.48	

Date	Time	Increments	Storm Inches	Season Inches	Event Tasks
03/12/2020	11:00	0.00	0.45	9.48	
03/12/2020	11:20	0.01	0.46	9.49	
03/12/2020	11:27	0.01	0.47	9.50	
03/12/2020	11:37	0.01	0.48	9.51	
03/12/2020	11:45	0.01	0.49	9.52	
03/12/2020	12:03	0.01	0.50	9.53	
03/12/2020	12:08	0.01	0.51	9.54	
03/12/2020	12:11	0.01	0.52	9.55	
03/12/2020	12:14	0.01	0.53	9.56	
03/12/2020	12:17	0.01	0.54	9.57	
03/12/2020	12:23	0.01	0.55	9.58	
03/12/2020	12:30	0.01	0.56	9.59	
03/12/2020	12:39	0.01	0.57	9.60	
03/12/2020	12:44	0.01	0.58	9.61	
03/12/2020	12:47	0.01	0.59	9.62	
03/12/2020	12:50	0.01	0.60	9.63	
03/12/2020	12:53	0.01	0.61	9.64	
03/12/2020	12:55	0.01	0.62	9.65	
03/12/2020	12:57	0.01	0.63	9.66	
03/12/2020	12:59	0.01	0.64	9.67	
03/12/2020[1]	13:00	0.00	0.64	9.67	BCD, BLC, and BRD sampling start time
03/12/2020	13:02	0.01	0.65	9.68	
03/12/2020	13:06	0.01	0.66	9.69	
03/12/2020	13:09	0.01	0.67	9.70	
03/12/2020	13:12	0.01	0.68	9.71	
03/12/2020	13:14	0.01	0.69	9.72	
03/12/2020	13:17	0.01	0.70	9.73	
03/12/2020	13:20	0.01	0.71	9.74	
03/12/2020	13:23	0.01	0.72	9.75	
03/12/2020	13:25	0.01	0.73	9.76	
03/12/2020	13:27	0.01	0.74	9.77	
03/12/2020	13:29	0.01	0.75	9.78	
03/12/2020	13:32	0.01	0.76	9.79	
03/12/2020	13:34	0.01	0.77	9.80	
03/12/2020	13:37	0.01	0.78	9.81	

[1] Sampling teams at San Gabriel River monitoring locations did not observe any flow above 20% baseline on March 10, 2020. Due to the late season wet-weather event, with the approval of the LARWQCB, sampling teams were mobilized for San Gabriel River monitoring locations on March 12, 2020.

Date	Time	Increments	Storm Inches	Season Inches	Event Tasks
03/12/2020	13:42	0.01	0.79	9.82	
03/12/2020	13:47	0.01	0.80	9.83	
03/12/2020	13:51	0.01	0.81	9.84	
03/12/2020	13:56	0.01	0.82	9.85	
03/12/2020	14:00	0.01	0.83	9.86	LDW_BDW sampling start time
03/12/2020	14:04	0.01	0.84	9.87	
03/12/2020	14:06	0.01	0.85	9.88	
03/12/2020	14:09	0.01	0.86	9.89	
03/12/2020	14:12	0.01	0.87	9.90	
03/12/2020	14:14	0.01	0.88	9.91	
03/12/2020	14:16	0.01	0.89	9.92	
03/12/2020	14:18	0.01	0.90	9.93	
03/12/2020	14:20	0.01	0.91	9.94	
03/12/2020	14:23	0.01	0.92	9.95	
03/12/2020	14:25	0.01	0.93	9.96	
03/12/2020	14:27	0.01	0.94	9.97	
03/12/2020	14:29	0.01	0.95	9.98	
03/12/2020	14:30	0.01	0.96	9.99	
03/12/2020	14:32	0.01	0.97	10.00	
03/12/2020	14:34	0.01	0.98	10.01	
03/12/2020	14:35	0.01	0.99	10.02	
03/12/2020	14:38	0.01	1.00	10.03	
03/12/2020	14:40	0.01	1.01	10.04	
03/12/2020	14:48	0.02	1.03	10.06	
03/12/2020	14:51	0.01	1.04	10.07	
03/12/2020	14:53	0.01	1.05	10.08	
03/12/2020	14:55	0.01	1.06	10.09	
03/12/2020	14:57	0.01	1.07	10.10	
03/12/2020	14:58	0.01	1.08	10.11	
03/12/2020	15:00	0.01	1.09	10.12	
03/12/2020	15:02	0.01	1.10	10.13	
03/12/2020	15:04	0.01	1.11	10.14	
03/12/2020	15:06	0.01	1.12	10.15	
03/12/2020	15:08	0.01	1.13	10.16	
03/12/2020	15:10	0.01	1.14	10.17	
03/12/2020	15:12	0.01	1.15	10.18	
03/12/2020	15:14	0.01	1.16	10.19	
03/12/2020	15:16	0.01	1.17	10.20	

Date	Time	Increments	Storm Inches	Season Inches	Event Tasks
03/12/2020	15:17	0.01	1.18	10.21	
03/12/2020	15:19	0.01	1.19	10.22	
03/12/2020	15:21	0.01	1.20	10.23	
03/12/2020	15:24	0.01	1.21	10.24	
03/12/2020	15:27	0.01	1.22	10.25	
03/12/2020	15:29	0.01	1.23	10.26	
03/12/2020	15:31	0.01	1.24	10.27	
03/12/2020	15:32	0.01	1.25	10.28	
03/12/2020	15:34	0.01	1.26	10.29	
03/12/2020	15:36	0.01	1.27	10.30	
03/12/2020	15:37	0.01	1.28	10.31	
03/12/2020	15:39	0.01	1.29	10.32	
03/12/2020	15:41	0.01	1.30	10.33	
03/12/2020	15:42	0.01	1.31	10.34	
03/12/2020	15:44	0.01	1.32	10.35	
03/12/2020	15:46	0.01	1.33	10.36	
03/12/2020	15:48	0.01	1.34	10.37	
03/12/2020	15:50	0.01	1.35	10.38	
03/12/2020	15:51	0.01	1.36	10.39	
03/12/2020	15:52	0.01	1.37	10.40	
03/12/2020	15:53	0.01	1.38	10.41	
03/12/2020	15:54	0.01	1.39	10.42	
03/12/2020	15:56	0.01	1.40	10.43	
03/12/2020	15:57	0.01	1.41	10.44	
03/12/2020	15:58	0.01	1.42	10.45	
03/12/2020	15:59	0.01	1.43	10.46	
03/12/2020	16:00	0.00	1.43	10.46	BCD, BLC, and BRD sampling end time
03/12/2020	16:01	0.01	1.44	10.47	
03/12/2020	16:02	0.01	1.45	10.48	
03/12/2020	16:04	0.01	1.46	10.49	
03/12/2020	16:05	0.01	1.47	10.50	
03/12/2020	16:07	0.01	1.48	10.51	
03/12/2020	16:09	0.01	1.49	10.52	
03/12/2020	16:11	0.01	1.50	10.53	
03/12/2020	16:12	0.01	1.51	10.54	
03/12/2020	16:14	0.01	1.52	10.55	
03/12/2020	16:16	0.01	1.53	10.56	
03/12/2020	16:18	0.01	1.54	10.57	

Date	Time	Increments	Storm Inches	Season Inches	Event Tasks
03/12/2020	16:20	0.01	1.55	10.58	
03/12/2020	16:22	0.01	1.56	10.59	
03/12/2020	16:24	0.01	1.57	10.60	
03/12/2020	16:26	0.01	1.58	10.61	
03/12/2020	16:28	0.01	1.59	10.62	
03/12/2020	16:29	0.01	1.60	10.63	
03/12/2020	16:31	0.01	1.61	10.64	
03/12/2020	16:34	0.01	1.62	10.65	
03/12/2020	16:35	0.01	1.63	10.66	
03/12/2020	16:36	0.01	1.64	10.67	
03/12/2020	16:38	0.01	1.65	10.68	
03/12/2020	16:40	0.01	1.66	10.69	
03/12/2020	16:43	0.01	1.67	10.70	
03/12/2020	16:46	0.01	1.68	10.71	
03/12/2020	16:50	0.01	1.69	10.72	
03/12/2020	16:54	0.01	1.70	10.73	
03/12/2020	17:00	0.01	1.71	10.74	LDW_BDW sampling end time
03/12/2020	17:04	0.01	1.72	10.75	
03/12/2020	17:10	0.01	1.73	10.76	
03/12/2020	17:19	0.01	1.74	10.77	
03/12/2020	23:32	0.01	1.75	10.78	
03/13/2020	01:14	0.01	1.76	10.79	
03/13/2020	01:34	0.01	1.77	10.80	
03/13/2020	02:50	0.01	1.78	10.81	
03/15/2020	09:00	0.00	2.55	11.58	
03/16/2020	20:51	0.01	3.29	12.32	
03/16/2020	21:00	0.00	3.29	12.32	End of WWE#4

3.2 Flow Characteristics

CWE teams assigned to Rio Hondo Watershed monitoring locations arrived onsite on March 10, 2020, observed runoff in excess of 20 percent above base flow at the Rio Hondo Reach 3 receiving water monitoring locations, and began collecting samples for compositing as soon as equipment, containers, and staff were ready; around 10:00 hours.

As shown in **Figure 3-1**, stream flow data from the downstream USGS Above Whittier Narrows Dam Stream Gage[2], reported flows of approximately 70 cubic feet per second (cfs) around the time of sample collection, 10:00 hours. Flows increased to approximately 600 cfs around 11:30 hours on March 10, 2020. The LACPW Los Angeles River at Wardlow River Road stream gage (F319-R) recorded flows of 530 cfs, at 13:01 hours, and satisfy the Los Angeles River Metals TMDL wet-weather conditions criteria as flows are greater than 500 cfs. Infiltration at the Whittier Narrows Recreation Center and diversion of flows to the LACPW Rio Hondo Spreading Grounds may hydrologically isolate the RH/SGR WQG from downstream watershed areas, making flow data correlations between these two stations difficult.

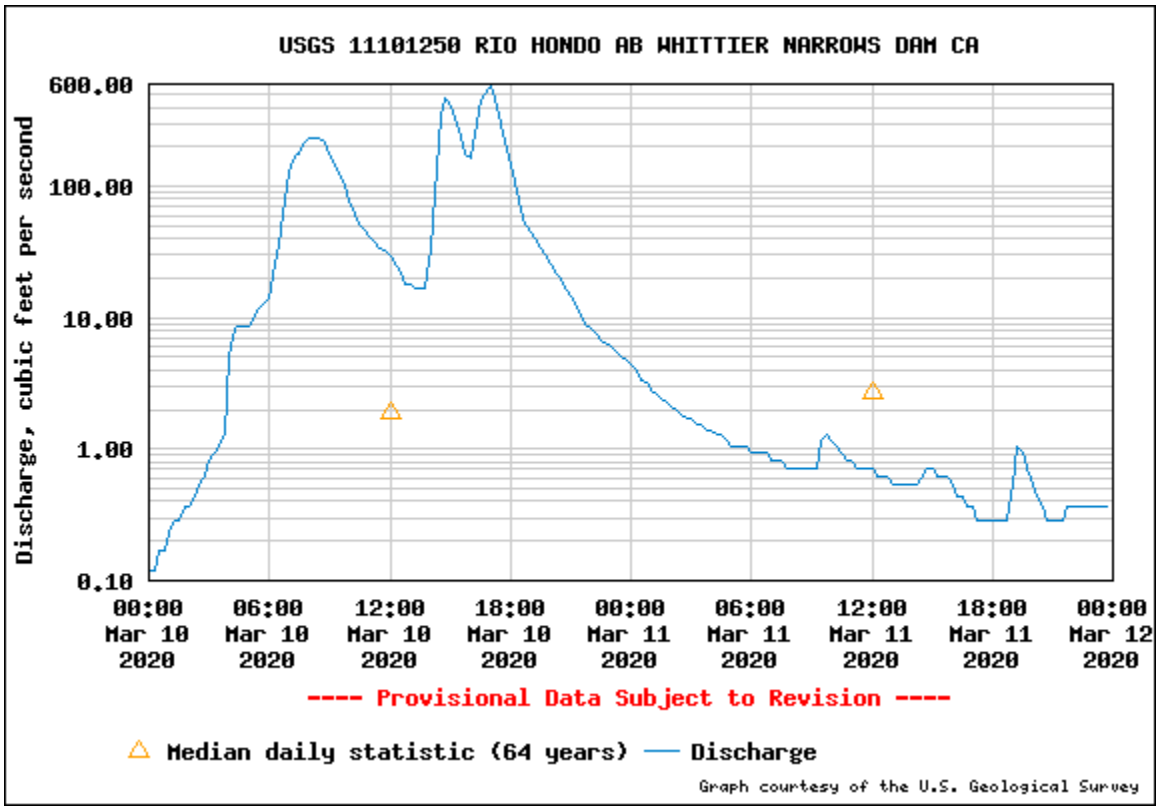

Figure 3-1 Rio Hondo Above Whittier Narrows Dam USGS Stream Gage 11101250

[2] https://waterdata.usgs.gov/nwis/uv/?site_no=11101250&agency_cd=USGS&amp

CWE teams assigned to SGR Watershed monitoring locations arrived on March 10, 2020 but did not observe baseline flows above 20%. Therefore, CWE teams remobilized on March 12, 2020, during the same qualifying storm event, observed runoff in excess of 20 percent above base flow, and began collecting samples for compositing around 13:00 hours. **Figure 3-2** illustrates runoff flows were absent from the USGS San Gabriel River Below Santa Fe Dam Stream Gage[3] during the initial mobilization on March 10, 2020, and during the time of sample collection on March 12, 2020. The San Gabriel River Metals TMDL defines wet-weather conditions to exist on days when flows exceed 260 cfs at the San Gabriel River Below Santa Fe Dam Stream Gage. Storm flows were apparent at Receiving Water and Stormwater Outfall monitoring locations within the San Gabriel River Watershed portion of the RH/SGR WQG area.

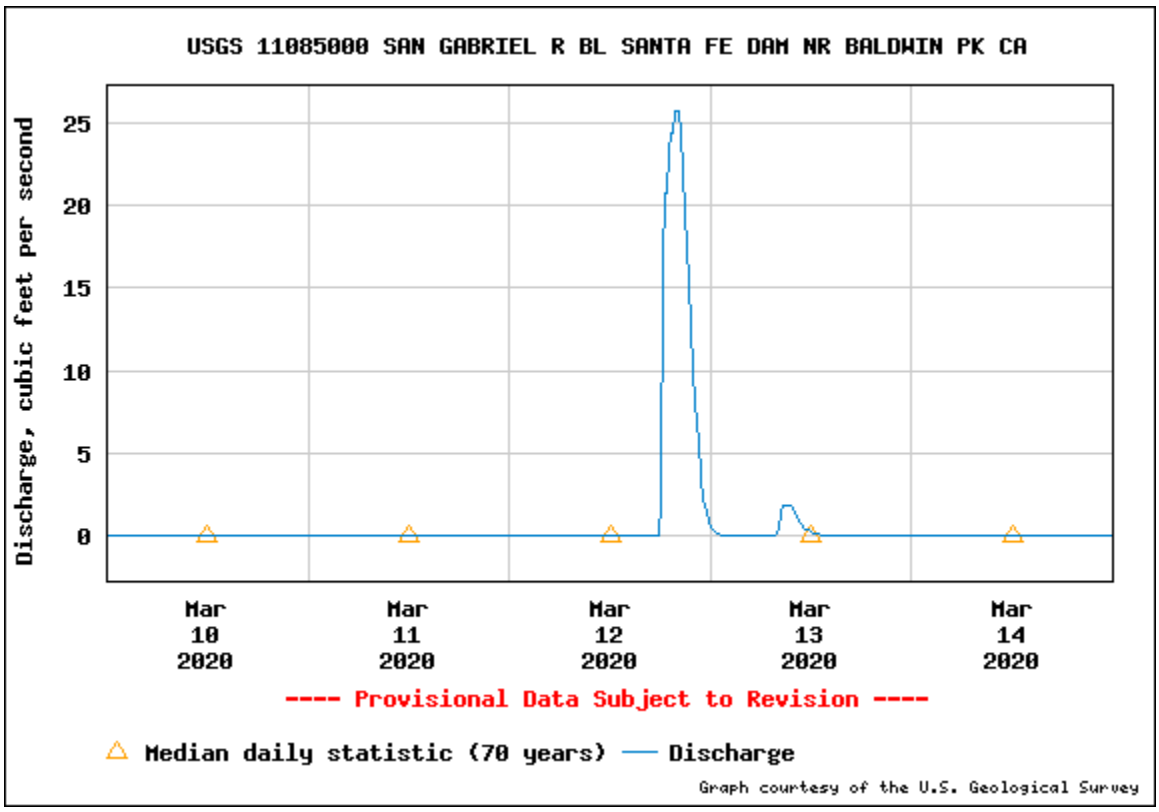

Figure 3-2 San Gabriel River Below Santa Fe Dam USGS Stream Gage 11085000

3.3 Sample Processing and Laboratory Distribution

Collected water quality samples from the Rio Hondo Watershed were immediately chilled on ice, returned to CWE in Fullerton under chain-of-custody (CoC), sorted by analytical laboratory, additional ice added when needed, and the sampling teams mostly demobilized by 15:00 hours on Tuesday, March 10, 2020. Bacteria (*E. coli*) samples were delivered by CWE staff under CoC to Enthalpy Laboratories (Enthalpy) of Orange on Tuesday at 15:15 hours and processed within three hours of sample collection. Wet-chemistry samples were delivered by CWE staff under CoC to Eurofins Calscience Laboratory (Eurofins) of

[3] http://waterdata.usgs.gov/nwis/uv/?site_no=11085000&agency_cd=USGS&amp

Garden Grove, and the CoC countersigned on Wednesday at 15:52 hours, within 3 hours of final sample aliquot collection.

Following the same procedures, San Gabriel River sampling teams were mostly demobilized by 18:00 hours on Thursday, March 12, 2020. Bacteria (*E. coli*) samples were delivered by CWE staff under CoC to Enthalpy Laboratories (Enthalpy) of Orange on Thursday at 19:13 hours and processed within three hours of sample collection. Wet-chemistry samples were delivered by CWE staff under CoC to Eurofins Calscience Laboratory (Eurofins) of Garden Grove, and the CoC countersigned on Thursday at 20:45 hours, within 4 hours of final sample aliquot collection.

4. Monitoring Event Observations

CWE water quality monitoring teams arrived at their respective RH/SGR WQG monitoring locations, and began to assess their sites to prepare for sampling. **Table 4-1** provides a sample collection summary for the 2019-2020 WWE#4.

Table 4-1 2019-2020 WWE#4 Sample Collection Summary

Monitoring Location	Date	Field Team	Weather Conditions	Sample Collection Time	
				Start	End
RH3_ARC	03/10/2020	VB/SB	Partially cloudy and rain	11:00	13:20
SAN_DD	03/10/2020	CP	Rain	10:00	13:00
SAW_PR	03/10/2020	SMB/JH	Partially cloudy and rain	10:00	13:00
PRD	03/10/2020	SMB/JH	Partially cloudy and rain	10:10	13:10
ALA	03/10/2020	KH	Rain	11:00	13:00
LDW_BDW	03/12/2020	CK	Cloudy, windy, and rain	14:00	17:00
BRD	03/12/2020	KH	Rain	13:00	16:00
BLC	03/12/2020	EH	Cloudy and rain	13:00	16:00
BCD	03/12/2020	RK/WB	Cloudy and rain	13:00	16:00

Sample collection and analysis procedures were conducted in accordance with the CIMP Plan. Results from the 2019-2020 WWE#4 are summarized in the following subsections and a complete summary of laboratory results and relevant compliance targets are contained in **Attachment A**. Monitoring field logs and photographic logs for this event are in **Attachment B**, while certified laboratory reports with countersigned CoCs are in **Attachment C**.

4.1 Rio Hondo Water Monitoring Observations

The 2019-2020 WWE#4 Rio Hondo monitoring observations and results are present in the sections below.

4.1.1 LTA Receiving Water Monitoring Observations

Table 4-2 provides a summary of conditions observed at the monitoring location and **Table 4-3** provides a summary of water depth measurements per aliquot sampled during the March 10, 2020, sampling event.

Table 4-2 2019-2020 WWE#4 Summary of Observations for RH LTA Receiving Water Sites

Monitoring Location	Water Color	Water Characteristics	Field Observations	Additional Notes
LTA				
RH3_ARC	Light brown	Laminar flow	Minimal trash and organic debris floatables	Ducks and crows were observed

Table 4-3 2019-2020 WWE#4 Summary of Water Depth for RH LTA Receiving Water Sites

Aliquot #	RH3_ARC	
	Time	Water Depth (in)
1	11:00	1.5
2	11:20	1
3	11:40	1.25
4	12:00	1.25
5	12:20	1.25
6	12:40	1.5
7	13:00	1.5
8	13:20	1.25
9	--[1]	--
10	--[1]	--

[1] Runoff above 20% base flow was not observed at RH3_ARC during aliquot 9 and 10.

4.1.2 TMDL Receiving Water Monitoring Observations

The current CIMP phase emphasizes MS4 discharges by sampling from the two TMDL Receiving Water Monitoring locations located just upstream from the Peck Road Water Conservation Park Lake TMDL Receiving Water Monitoring location, where future lacustrine water, sediment, and fish tissue samples will be collected to assess beneficial use conditions. Due to their large tributary areas, which extend into the foothills above the WQG, storm runoff flows at the TMDL Receiving Water locations are sustained and comparable with those of the LTA Receiving Water locations. The 2019-2020 WWE#4 monitoring observations and results are present in the sections below. **Table 4-4** provides a summary of conditions observed at each monitoring location and **Table 4-5** provides a summary of water depth measurements per aliquot sampled during the March 10, 2020, sampling event.

Table 4-4 2019-2020 WWE#4 Summary of Observations for TMDL Receiving Water Sites

Monitoring Location	Water Color	Water Characteristics	Field Observations	Additional Notes
TMDL				
SAN_DD	Clear	Increasing sediment load during the sampling period	Fishing in park downstream	--
SAW_PR	Tan/Clear	Low flow, no odor, and minimal floatables	Algae and plant growth on channel bottom	Birds observed

Table 4-5 2019-2020 WWE#4 Summary of Water Depth for TMDL Receiving Water Sites

Aliquot #	SAN_DD		SAW_PR	
	Time	Water Depth (in)	Time	Water Depth (in)
1	10:00	3	10:00	1.5
2	10:20	3	10:20	1.5
3	10:40	2.5	10:40	1.5
4	11:00	2.5	11:00	1
5	11:20	2	11:20	1
6	11:40	2	11:40	0.5
7	12:00	1.5	12:00	0.5
8	12:20	1.5	12:20	0.5
9	12:40	1	12:40	0.5
10	13:00	1	13:00	2

4.1.3 Stormwater Outfall Monitoring Observations

Stormwater Outfall monitoring locations are typically the most "flashy" or quick to respond to rainfall, due to their small, impervious, urbanized tributary areas. In addition, the RH/SGR WQG headwaters consist of extensive foothill and alluvial fan, or bajada, areas with more steeply, or aggressively, sloped and hardened drainage conveyances. These slopes may potentially contribute to higher runoff flow velocities, greater sediment transport, and higher pollutant transport capabilities. The 2019-2020 WWE#4 Rio Hondo monitoring observations and results are present in the sections below. **Table 4-6** provides a summary of conditions observed at each monitoring location and **Table 4-7** provides a summary of water depth measurements per aliquot sampled during the March 10, 2020, sampling event.

Table 4-6 2019-2020 WWE#4 Summary of Observations for RH Stormwater Outfall Sites

Monitoring Location	Water Color	Water Characteristics	Field Observations	Additional Notes
Outfall				
PRD	Clear/Tan	Low flow, laminar flow, no odor	No trash in stream	Birds observed
ALA	Clear/Light Brown	No odor, decreasing flow	Organic debris and minimal trash floatables	--

Table 4-7 2019-2020 WWE#4 Summary of RH Water Depth for Stormwater Outfall Sites

Aliquot No.	PRD		ALA	
	Time	Water Depth (in)	Time	Water Depth (in)
1	10:10	1.5	11:00	2
2	10:30	1.5	11:20	2
3	10:50	1.5	11:40	2
4	11:10	1	12:00	1.5
5	11:30	1	12:20	1.5
6	11:50	0.5	12:40	1
7	12:10	0.5	13:00	1
8	12:30	0.5	13:20	--[1]
9	12:50	0.5	13:40	--[1]
10	13:10	2	14:00	--[1]

[1] Runoff above 20% base flow was not observed at ALA during aliquots 8 through 10.

4.2 San Gabriel River Water Monitoring Observations

The 2019-2020 WWE#4 San Gabriel River monitoring observations and results are present in the sections below.

4.2.1 LTA Receiving Water Monitoring Observations

Table 4-8 provides a summary of conditions observed at the LTA monitoring location and **Table 4-9** provides a summary of water depth measurements per aliquot sampled during the March 12, 2020, sampling event.

Table 4-8 2019-2020 WWE#4 Summary of Observations for SGR LTA Receiving Water Site

Monitoring Location	Water Color	Water Characteristics	Field Observations	Additional Notes
LTA				
LDW_BDW	Light brown	Fast flow	No trash or wildlife observed	Maintenance personnel observed downstream

Table 4-9 2019-2020 WWE#4 Summary of Water Depth for SGR LTA Receiving Water Site

Aliquot #	LDW_BDW	
	Time	Water Depth (in)
1	14:00	8
2	14:20	8
3	14:40	8
4	15:00	8
5	15:20	8
6	15:40	10
7	16:00	10
8	16:20	10
9	16:40	10
10	17:00	10

4.2.2 Stormwater Outfall Monitoring Observations

Table 4-10 provides a summary of conditions observed at each monitoring location and **Table 4-11** provides a summary of water depth measurements per aliquot sampled during the March 12, 2020, sampling event.

Table 4-10 2019-2020 WWE#4 Summary of Observations for Stormwater Outfall Sites

Monitoring Location	Water Color	Water Characteristics	Field Observations	Additional Notes
Outfall				
BRD	Clear/Light brown	Relatively low turbidity, no odor	Organic debris and minimal trash floatables	--
BLC	Brown/Gray tint	Consistent flow level throughout sampling	Suspended particles and organic floatables	Plastics and tires observed in channel
BCD	Brown/Light brown	Flow color cleared up after aliquot 3	Suspended sediment and organic floatables	Homeless activities nearby

Table 4-11 2019-2020 WWE#4 Summary of Water Depth for Stormwater Outfall Sites

Aliquot No.	BRD		BLC		BCD	
	Time	Water Depth (in)	Time	Water Depth (in)	Time	Water Depth (in)
1	13:00	2	13:00	2	13:00	3
2	13:20	2.5	13:20	2	13:20	3.5
3	13:40	3	13:40	2	13:40	5
4	14:00	3	14:00	2.5	14:00	5.5
5	14:20	3	14:20	2.5	14:20	6
6	14:40	2.5	14:40	3	14:40	6
7	15:00	4	15:00	3	15:00	6
8	15:20	4	15:20	3	15:20	5
9	15:40	4	15:40	3	15:40	5
10	16:00	4.5	16:00	3	16:00	5

5. Summary of Monitoring Results

Sample collection and analysis procedures were conducted in accordance with the CIMP Plan. Results from the 2019-2020 WWE#4 are summarized in the following subsections and a complete summary of laboratory results and relevant compliance targets are contained in **Attachment A**.

5.1 LTA Receiving Water Monitoring Location Results

LTA Receiving Water Monitoring demonstrates whether Water Quality Objectives (WQOs) are met in assessed water bodies, so that they may support the attainment of beneficial uses. In 2015, following CIMP approval, the first critical wet- and dry-weather events samples from LTA Receiving Water locations RH3_ARC and LDW_BDW were screened for 2012 MS4 Permit, Attachment E, Table E-2 parameters, based on the identified analytical Minimum Levels (MLs). For 2019-2020 WWE#4, a reduced list of parameters was sampled. The reduced list included parameters that exceeded compliance targets during the first storm event of 2015 and parameters identified in the CIMP.

5.1.1 RH3_ARC

Attachment A includes the 2019-2020 WWE#4 water quality data for RH3_ARC. Bolded cells indicate potential wet-weather target effluent limitations exceedances for *E. coli,* copper, and zinc, which are among several parameters identified in the CIMP for continued monitoring as constituents within the Los Angeles River Bacteria and Metals TMDLs. Final wet-weather compliance dates for *E. coli,* copper, and zinc are March 23, 2037, and January 11, 2028, respectively. In addition, copper data compliance targets may be modified in the future to consider LARWQCB adopted Site Specific Objectives (SSO) signified in the rightmost column of **Attachment A** by "SSO." No additional future monitoring, beyond the approved RH/SGR WQG CIMP will be necessary.

5.1.2 LDW_BDW

Attachment A includes the 2019-2020 WWE#4 water quality data for LDW_BDW. Bolded cells indicate potential wet-weather target effluent limitations exceedances for *E. coli*, copper, and zinc. These parameters are among several parameters identified in the CIMP for continued monitoring as constituents within the San Gabriel River Bacteria and Metals TMDLs. Final wet-weather compliance dates for San Gabriel River Bacteria and Metals TMDLs are June 14, 2036, and September 30, 2026, respectively.

5.2 TMDL Receiving Water Monitoring Location Results

A primary objective of TMDL Receiving Water Monitoring is to assess whether previously reported receiving water quality impairments, attributed to MS4 discharges, are improving to support the attainment of downstream LARWQCB Basin Plan designated beneficial uses within a specified, expedient, timeframe or milestone date. Monitoring at the TMDL Receiving Water locations tracks parameters associated with Los Angeles River Watershed TMDLs and additional parameters identified in the United States Environmental Protection Agency (USEPA) Peck Road Water Conservation Park Lake TMDLs. During dry-weather and the majority of storms, the majority of RH/SGR WQG runoff infiltrates into Peck Road Water Conservation Park Lake, nearby unlined river reaches, the Whittier Dam Recreation Area, and downstream spreading grounds. This precludes the WQG areas from having significantly contributed to lower Los Angeles and San Gabriel River impairments characterized during TMDL development.

5.2.1 SAN_DD

Attachment A includes the 2019-2020 WWE#4 water quality data for SAN_DD. Bolded cell indicates a potential wet-weather target effluent limitations exceedance for *E. coli*. This pollutant is addressed within the Los Angeles River Bacteria TMDL, along with the approved RH/SGR WQG revised WMP and CIMP Plans. The Los Angeles River Bacteria TMDL has a final wet-weather compliance date of March 23, 2037.

5.2.2 SAW_PR

Attachment A includes the 2019-2020 WWE#4 water quality data for SAW_PR. Bolded cell indicates a potential wet-weather target effluent limitations exceedance for *E. coli*. This pollutant is addressed within the Los Angeles River Bacteria TMDL, along with the approved RH/SGR WQG revised WMP and CIMP Plans, and has a future final limitations compliance date of March 23, 2037.

5.3 Stormwater Outfall Monitoring Location Results

CIMP approved Stormwater Outfall locations are monitored to determine whether MS4 discharges are causing or contributing to Receiving Water Limitations (RWLs) exceedances of Basin Plan WQOs. In addition, the monitoring of Stormwater Outfalls identifies subwatersheds requiring the implementation of additional water quality control measures. Since receiving waters integrate natural flows, permitted and non-permitted discharges from tributary area, water quality data that exceed Municipal Action Levels (MALs) should be considered within the context of observed local RWL and WQO exceedances. Five Stormwater Outfall Monitoring locations were sampled: PRD, BRD, ALA, BLC, and BCD.

5.3.1 PRD

Attachment A includes the 2019-2020 WWE#4 water quality data for PRD. Bolded cell indicates a potential wet-weather target effluent limitations exceedance for *E. coli*, which is addressed within the approved RH/SGR WQG revised WMP and CIMP Plans.

5.3.2 BRD

Attachment A includes the 2019-2020 WWE#4 water quality data for BRD. Bolded cell indicates a potential wet-weather target effluent limitations exceedance for *E. coli*, which is addressed within the approved RH/SGR WQG revised WMP and CIMP Plans.

5.3.3 ALA

Attachment A includes the 2019-2020 WWE#4 water quality data for ALA. Bolded cell indicates a potential wet-weather target effluent limitations exceedance for *E. coli*. This parameter is addressed within the approved RH/SGR WQG revised WMP and CIMP Plans.

5.3.4 BLC

Attachment A includes the 2019-2020 WWE#4 water quality data for BLC. Bolded cell indicates a potential wet-weather target effluent limitations exceedance for *E. coli*. This parameter is addressed within the approved RH/SGR WQG revised WMP and CIMP Plans.

5.3.5 BCD

Attachment A includes the 2019-2020 WWE#4 water quality data for BCD. Bolded cell indicates a potential wet-weather target effluent limitations exceedance for *E. coli*. This parameter is addressed within the approved RH/SGR WQG revised WMP and CIMP Plans.

5.4 Caveats to Interpreting Monitoring Results

The CWE Project Manager's QA/QC assessment of the analytical results identified no issues of significance to the CIMP. Method and field blanks analyte determinations were either non-detect (ND) or contained analyte concentrations well below those in the samples. Duplicate QA/QC sample analyte concentrations, collected at the RH3_ARC location, were comparable to primary sample results in **Attachment A**.

Stormwater samples often contain substantial analytical matrix interferences and during this monitoring event Dilution Factors (DF) of between fivefold (DF5X) and tenfold (DF10X) were employed for several analyses as identified in the last column of the analytical summaries in **Attachment A** and certified Laboratory Reports in **Attachment C**. This was commonly the cause for reported MDLs rising above the MS4 Permit identified MLs. This observation is a function of the sample matrix rather than a change in the analytical MDL.

The compliance targets referenced in this memorandum and **Attachment A** and **Attachment C** are subject to conflicting interpretations or precedents among the LARWQCB Basin Plan, Federal Statutes (i.e., California Toxics Rule or CTR), and the 2012 MS4 Permit, among other alternative regulatory references. For example, flows at receiving water monitoring locations greatly exceed the 20 percent above baseline wet-weather event criteria in the permit; however, **Figure 3-2** shows that flows at the target stream gage, identified in the San Gabriel River Metals TMDL, was zero. Compliance with Waste Load Allocations (WLAs) identified in the USEPA developed for the Peck Road Water Conservation Park

Lake TMDLs, would become effective immediately, if the MS4 Permit is rejected by the courts. WQOs identified in the Los Angeles River Metals TMDL are dependent on observed Wardlow Road Stream Gage flows, which can be lower than those observed at upper Rio Hondo stream gages due to in channel storage, diversion to spreading grounds, and infiltration. The WQOs in that TMDL also anticipate incorporation of Water Effects Ratio (WER) studies and allow for adjustments based on the adoption of a SSOs Basin Plan Amendment that has already been approved by the LARWQCB and State Water Board, but is awaiting USEPA final approval. For these and other reasons, the target effluent limitations in this Summary Technical Memorandum, including **Attachment A** and **Attachment C**, should be considered tentative and subject to subsequent reinterpretation based on advancing knowledge regarding the merging of potentially conflicting regulatory guidance.

6. Monitoring Event Conclusions

Following LARWQCB EO approval of the CIMP, the RH/SGR WQG began preparations to collect water quality samples from 2019-2020 WWE#4. After confirming that flows at CIMP identified Rio Hondo monitoring locations was 20 percent over base flow, meeting the definition for wet-weather conditions as identified in MS4 Permit Attachment E Parts VI.C.1.b.ii and VIII.B.1.b.ii, collection of three hour duration, ten-aliquot, flow-weighted, composite, water quality samples, began at 10:00 hours on Tuesday, March 10, 2020. Because flows at San Gabriel River monitoring locations were not 20 percent over base flow on March 10, 2020, CWE teams remobilized on March 12, 2020, during the same qualifying storm event, observed runoff in excess of 20 percent above base flow, and began sample collection for San Gabriel River monitoring locations at 13:00 hours. The Mount Olive High School ALERT rain gage #473 eventually recorded a storm total of 3.29 inches, resulting in designation of this event as having met all qualifying criteria.

E. coli results from each of the nine monitoring sites were analyzed by Enthalpy. Sample results were reported in Most Probable Numbers per 100 milliliter (MPN/100 mL) and ranged in the thousands for the receiving water location, potentially exceeding target effluent limitations. The approved RH/SGR WQG CIMP anticipated continued sampling for this parameter and no monitoring changes were necessary or warranted by these results.

Wet chemistry analyses, performed by Eurofins, identified potential target effluent limitations exceedances for copper and zinc at the LTA Receiving Water locations; however, these results were anticipated within the revised WMP and CIMP final compliance deadline and no changes to those plans are warranted at this time.

The cells with bold text in **Attachment A** are provided to prioritize revised WMP implementation efforts, and consistent with Permit Parts V.A.3 and VI.C.3, need not be so identified when electronically submitted in California Environmental Data Exchange Network (CEDEN) format to the LARWQCB during the Fall of 2020, as per 2012 MS4 Permit requirements, since they do not constitute an exceedance of final TMDL or other limitations and may be subject to Basin Plan SSOs currently undergoing regulatory review.

Attachment A

Summary of Water Quality Sample Results and Relevant Target Effluent Limitations

RH/SGR WQG 2019-2020 Wet-Weather Event #4 on 03/10/2020
Water Quality Limitations and Analytical Results for RHSGR_RH3_ARC in Rio Hondo Reach 3

DRAFT

Analyte or Parameter	Table E-2 Minimum Levels	Analytical Method Identifier	Method Detection Limit (MDL)	Units	RH3_ARC WWRW Target Effluent Limitations		Analytical Results	Analytical Results Qualifiers
					Numeric Value	Regulatory Source		
CIMP Long Term Assessment (LTA) Constituents								
Flow	N/A	F317+F192B	0	AcFt/Day	None	MS4PE VI.C.1.d.i	>20% baseline	
Dissolved Oxygen	5	Field	0.1	mg/L	Mean/Min>=7/5	BP WQOs	10.19	
pH	0-14	Field	0.1	pH Units	Not Applicable	BP WQOs	8.77	
Temperature	N/A	Field	0	°C	Not Applicable	BP WQOs	19	
Specific Conductivity	1	Field	1	µmhos/cm	None	MS4PE VI.C.1.d.v	143.7	
Turbidity	0.1	Field	0.05	NTU	Not Applicable	BP WQOs	41.4	
Total Suspended Solids	2	SM 2540D	2.76	mg/L	No Nuisance	BP WQOs	56.7	
Total Hardness	2	SM 2340C	9.89	mg/L	None	MS4PE VI.C.1.d.v	100	DF 10X
Ammonia-N	0.1	SM 4500-NH3 C	0.0665	mg/L	10.1	LAR Nutr TMDL	0.28	
Nitrate - N	0.1	EPA 300.0	0.045	mg/L	8.0	LAR Nutr TMDL	1.3	
Nitrite - N	0.1	EPA 300.0	0.027	mg/L	1.0	LAR Nutr TMDL	0.15	
Nitrate-N + Nitrite-N	0.1	EPA 300.0	0.045/0.027	mg/L	8.0	LAR Nutr TMDL	1.45	
Dissolved Cadmium	0.25	EPA 200.8	0.98	µg/L	3	LAR Metal TMDL	ND	
Total Cadmium	0.25	EPA 200.8	0.98	µg/L	See Dissolved Cd	LAR Metal TMDL	ND	
Dissolved Copper	0.5	EPA 200.8	0.61	µg/L	11	LAR Metal TMDL	**19.2**	
Total Copper	0.5	EPA 200.8	0.61	µg/L	See Dissolved Cu	LAR Metal TMDL	**30.1**	
Dissolved Lead	0.5	EPA 200.8	0.19	µg/L	51	LAR Metal TMDL	1.11	
Total Lead	0.5	EPA 200.8	0.19	µg/L	See Dissolved Pb	LAR Metal TMDL	8.23	
Dissolved Zinc	1	EPA 200.8	3.47	µg/L	97	LAR Metal TMDL	36.6	
Total Zinc	1	EPA 200.8	3.47	µg/L	See Dissolved Zi	LAR Metal TMDL	**106**	
Total Mercury	0.5	EPA 1631E	0.00083	µg/L	0.0510	CTR HH Other	0.0171	DF 10X
E. coli	235	SM 9223-B-b	<2	MPN/100mL	235	LAR Bacti TMDL	**7,300**	

RH/SGR WQG 2019-2020 Wet-Weather Event #4 on 03/12/2020
Water Quality Limitations and Analytical Results for RHSGR_LDW_BDW in Little Dalton Wash

DRAFT

Analyte or Parameter	Table E-2 Minimum Levels	Analytical Method Identifier	Method Detection Limit (MDL)	Units	LDW_BDW WWRW Target Effluent Limitations		Analytical Results	Analytical Results Qualifiers
					Numeric Value	Regulatory Source		
CIMP Long Term Assessment (LTA) Constituents								
Flow	N/A	LACFCD F274BR	0	AcFt/Day	None	MS4PE VI.C.1.d.i	>20% baseline	
Dissolved Oxygen	5	Field	0.1	mg/L	Mean/Min>=7/5	BP WQOs	10.34	
pH	0-14	Field	0.1	pH Units	Not Applicable	BP WQOs	7.95	
Temperature	N/A	Field	0	°C	Not Applicable	BP WQOs	12.7	
Specific Conductivity	1	Field	1	µmhos/cm	None	MS4PE VI.C.1.d.v	34.0	
Total Suspended Solids	2	SM 2540D	2.76	mg/L	No Nuisance	BP WQOs	51	
Total Hardness	2	SM 2340C	0.989	mg/L	None	MS4PE VI.C.1.d.v	20	
Dissolved Copper	0.5	EPA 200.8	0.61	µg/L	2.9	CTR HD CMC	**5.43**	
Total Copper	0.5	EPA 200.8	0.61	µg/L	See Dissolved Cu	CTR HD CMC	**13.7**	
Dissolved Lead	0.5	EPA 200.8	0.19	µg/L	10.8	CTR HD CMC	0.447	J
Total Lead	0.5	EPA 200.8	0.19	µg/L	See Dissolved Pb	CTR HD CMC	8.23	
Dissolved Zinc	1	EPA 200.8	3.47	µg/L	30	CTR HD CMC	**33.3**	
Total Zinc	1	EPA 200.8	3.47	µg/L	See Dissolved Zn	CTR HD CMC	**110**	
E. coli	235	SM 9223-B-b	<2	MPN/100mL	235	BP WQOs	**15,000**	
Total Mercury	0.5	EPA 1631E	0.0008	µg/L	0.051	CTR HH Other	0.0162	DF 10X
Endosulfan I	20	EPA 608	2	ng/L	220	CTR Max	43	

RH/SGR WQG 2019-2020 Wet-Weather Event #4 on 03/10/2020
Water Quality Limitations and Analytical Results for RHSGR_SAN_DD in Santa Anita Wash

DRAFT

Analyte or Parameter	Table E-2 Minimum Levels	Analytical Method Identifier	Method Detection Limit (MDL)	Units	SAN_DD WWTMDLRW Target Effluent Limitations		Analytical Results	Analytical Results Qualifiers
					Numeric Value	Regulatory Source		
CIMP Total Maximum Daily Load (TMDL) Receiving Water Site Constituents								
Flow	N/A	LACDPW F193BR	0	AcFt/Day	None	MS4PE VI.C.1.d.i	>20% baseline	
Dissolved Oxygen	5	Field	0.1	mg/L	Mean/Min>=7/5	BP WQOs	10.57	
pH	0-14	Field	0.1	pH Units	Not Applicable	BP WQOs	9.39	
Temperature	N/A	Field	0	°C	Not Applicable	BP WQOs	21	
Specific Conductivity	1	Field	1	µmhos/cm	None	MS4PE VI.C.1.d.v	149.6	
Total Suspended Solids	2	SM 2540D	2.76	mg/L	No Nuisance	BP WQOs	8.67	
Total Hardness	2	SM 2340C	9.89	mg/L	None	MS4PE VI.C.1.d.v	140	DF 10X
Dissolved Lead	0.5	EPA 200.8	0.19	µg/L	51	LAR Metal TMDL	0.588	J
Total Lead	0.5	EPA 200.8	0.19	µg/L	See Dissolved Pb	LAR Metal TMDL	1.85	
E. coli	235	SM 9223-B-b	<2	MPN/100mL	235	BP WQOs	**1,000**	

RH/SGR WQG 2019-2020 Wet-Weather Event #4 on 03/10/2020
Water Quality Limitations and Analytical Results for RHSGR_SAW_PR in Sawpit Wash

DRAFT

Analyte or Parameter	Table E-2 Minimum Levels	Analytical Method Identifier	Method Detection Limit (MDL)	Units	SAW_PR WWTMDLRW Target Effluent Limitations		Analytical Results	Analytical Results Qualifiers
					Numeric Value	Regulatory Source		
CIMP Total Maximum Daily Load (TMDL) Receiving Water Site Constituents								
Flow	N/A	LACDPW F194BR	0	AcFt/Day	None	MS4PE VI.C.1.d.i	>20% baseline	
Dissolved Oxygen	5	Field	0.1	mg/L	Mean/Min>=7/5	BP WQOs	8.88	
pH	0-14	Field	0.1	pH Units	Not Applicable	BP WQOs	9.08	
Temperature	N/A	Field	0	°C	Not Applicable	BP WQOs	18.9	
Specific Conductivity	1	Field	1	µmhos/cm	None	MS4PE VI.C.1.d.v	167.4	
Total Suspended Solids	2	SM 2540D	2.76	mg/L	No Nuisance	BP WQOs	30.7	
Total Hardness	2	SM 2340C	9.89	mg/L	None	MS4PE VI.C.1.d.v	160	DF 10X
Dissolved Lead	0.5	EPA 200.8	0.19	µg/L	51	LAR Metal TMDL	0.722	J
Total Lead	0.5	EPA 200.8	0.19	µg/L	See Dissolved Pb	LAR Metal TMDL	4.91	
bis(2-Ethylhexyl) Phthalate	5	EPA 625.1 SIM	3.3	µg/L	5.90	CTR HH Other	ND	
E. coli	235	SM 9223-B-b	<2	MPN/100mL	235	BP WQOs	**1,000**	

RH/SGR WQG 2019-2020 Wet-Weather Event #4 on 03/10/2020
Water Quality Limitations and Analytical Results for RHSGR_PRD in Sawpit Wash

DRAFT

Analyte or Parameter	Table E-2 Minimum Levels	Analytical Method Identifier	Method Detection Limit (MDL)	Units	RHSGR_PRD SWO Target Effluent Limitations		Analytical Results	Analytical Results Qualifiers
					Numeric Value	Regulatory Source		
CIMP Stormwater Outfall Site Constituents								
Flow	N/A	Field	0	AcFt/Day	None	MS4PE VIII.B.1.c.i	>20% baseline	
Dissolved Oxygen	5	Field	0.1	mg/L	None	MS4PE VIII.B.1.c.v	9.23	
pH	0-14	Field	0.1	pH Units	6.0-9.0	MS4P MAL	9.65	
Temperature	N/A	Field	0	°C	None	MS4PE VIII.B.1.c.v	18.7	
Specific Conductivity	1	Field	1	µmhos/cm	None	MS4PE VIII.B.1.c.v	132.8	
Total Suspended Solids	2	SM 2540D	2.76	mg/L	264.1	MS4P MAL	15.7	
Total Hardness	2	SM 2340C	9.89	mg/L	None	MS4PE VIII.B.1.c.v	160	DF 10X
Ammonia-N	0.1	SM4500-NH3 C	0.0665	mg/L	10.1	LAR Nutr TMDL	0.392	
Nitrate - N	0.1	EPA 300.0	0.22	mg/L	8.0	LAR Nutr TMDL	0.88	DF 5X
Nitrite - N	0.1	EPA 300.0	0.13	mg/L	1.0	LAR Nutr TMDL	ND	DF 5X
Nitite + Nitrate -N	0.1	EPA 300.0	0.22/0.13	mg/L	8.0	LAR Nutr TMDL	0.88	
bis(2-Ethylhexyl) Phthalate	5	EPA 625 SIM	3.3	µg/L	5.90	CTR HH Other	ND	
Dissolved Cadmium	0.25	EPA 200.8	0.98	µg/L	See Total Cd	MS4P MAL	ND	
Total Cadmium	0.25	EPA 200.8	0.98	µg/L	2.52	MS4P MAL	ND	
Dissolved Copper	0.5	EPA 200.8	0.61	µg/L	See Total Cu	MS4P MAL	16	
Total Copper	0.5	EPA 200.8	0.61	µg/L	71.12	MS4P MAL	21.5	
Dissolved Lead	0.5	EPA 200.8	0.19	µg/L	See Total Pb	MS4P MAL	0.963	J
Total Lead	0.5	EPA 200.8	0.19	µg/L	102	MS4P MAL	5.53	
Dissolved Zinc	1	EPA 200.8	3.47	µg/L	See Total Zn	MS4P MAL	64.8	
Total Zinc	1	EPA 200.8	3.47	µg/L	641.3	MS4P MAL	104	
Total Mercury	0.5	EPA 1631E	0.00083	µg/L	0.0510	CTR HH Other	0.0104	DF 10X
E. coli	235	SM 9223-B-b	<2	MPN/100mL	235	MS4P MAL	**2,000**	

RH/SGR WQG 2019-2020 Wet-Weather Event #4 on 03/10/2020
Water Quality Limitations and Analytical Results for RHSGR_ALA in Arcadia Wash

DRAFT

Analyte or Parameter	Table E-2 Minimum Levels	Analytical Method Identifier	Method Detection Limit (MDL)	Units	RHSGR_ALA SWO Target Effluent Limitations		Analytical Results	Analytical Results Qualifiers
					Numeric Value	Regulatory Source		
CIMP Stormwater Outfall Site Constituents								
Flow	N/A	Field	0	AcFt/Day	None	MS4PE VIII.B.1.c.i	>20% baseline	
Dissolved Oxygen	5	Field	0.1	mg/L	None	MS4PE VIII.B.1.c.v	9.09	
pH	0-14	Field	0.1	pH Units	6.0-9.0	MS4P MAL	7.69	
Temperature	N/A	Field	0	°C	None	MS4PE VIII.B.1.c.v	19.5	
Specific Conductivity	1	Field	1	µmhos/cm	None	MS4PE VIII.B.1.c.v	3.6	
Total Suspended Solids	2	SM 2540D	4.14	mg/L	264.1	MS4P MAL	36.5	
Total Hardness	2	SM 2340C	9.89	mg/L	None	MS4PE VIII.B.1.c.v	80	DF 10X
Ammonia-N	0.1	SM 4500-NH3 C	0.0665	mg/L	10.1	LAR Nutr TMDL	0.84	
Nitrate - N	0.1	EPA 300.0	0.045	mg/L	8.0	LAR Nutr TMDL	0.91	
Nitrite - N	0.1	EPA 300.0	0.027	mg/L	1.0	LAR Nutr TMDL	0.084	J
Nitrate-N + Nitrite-N	0.1	EPA 300.0	0.045/0.027	mg/L	8.0	LAR Nutr TMDL	0.994	
Dissolved Cadmium	0.25	EPA 200.8	0.98	µg/L	See Total Cd	MS4P MAL	ND	
Total Cadmium	0.25	EPA 200.8	0.98	µg/L	2.52	MS4P MAL	ND	
Dissolved Copper	0.5	EPA 200.8	0.61	µg/L	See Total Cu	MS4P MAL	18.3	
Total Copper	0.5	EPA 200.8	0.61	µg/L	71.12	MS4P MAL	24.9	
Dissolved Lead	0.5	EPA 200.8	0.19	µg/L	See Total Pb	MS4P MAL	1.03	
Total Lead	0.5	EPA 200.8	0.19	µg/L	102	MS4P MAL	4.94	
Dissolved Zinc	1	EPA 200.8	3.47	µg/L	See Total Zn	MS4P MAL	123	
Total Zinc	1	EPA 200.8	3.47	µg/L	641.3	MS4P MAL	180	
Total Mercury	0.5	EPA 1631E	0.00083	µg/L	0.0510	CTR HH Other	0.00959	DF 10X
E. coli	235	SM 9223-B-b	<2	MPN/100mL	235	MS4P MAL	**1,000**	

RH/SGR WQG 2019-2020 Wet-Weather Event #4 on 03/12/2020
Water Quality Limitations and Analytical Results for RHSGR_BRD in San Gabriel River Reach 5

DRAFT

Analyte or Parameter	Table E-2 Minimum Levels	Analytical Method Identifier	Method Detection Limit (MDL)	Units	RHSGR_BRD SWO Target Effluent Limitations		Analytical Results	Analytical Results Qualifiers
					Numeric Value	Regulatory Source		
CIMP Stormwater Outfall Site Constituents								
Flow	N/A	Field	0	AcFt/Day	None	MS4PE VIII.B.1.c.i	>20% baseline	
Dissolved Oxygen	5	Field	0.1	mg/L	None	MS4PE VIII.B.1.c.v	10.55	
pH	0-14	Field	0.1	pH Units	6.0-9.0	MS4P MAL	7.92	
Temperature	N/A	Field	0	°C	None	MS4PE VIII.B.1.c.v	12.9	
Specific Conductivity	1	Field	1	µmhos/cm	None	MS4PE VIII.B.1.c.v	50.3	
Total Suspended Solids	2	SM 2540D	2.76	mg/L	264.1	MS4P MAL	102	
Total Hardness	2	SM 2340C	0.989	mg/L	None	MS4PE VIII.B.1.c.v	44	
Dissolved Copper	0.5	EPA 200.8	0.61	µg/L	See Total Cu	MS4P MAL	5.29	
Total Copper	0.5	EPA 200.8	0.61	µg/L	71.12	MS4P MAL	14.5	
Dissolved Lead	0.5	EPA 200.8	0.19	µg/L	See Total Pb	MS4P MAL	0.272	J
Total Lead	0.5	EPA 200.8	0.19	µg/L	102	MS4P MAL	7.6	
Dissolved Zinc	1	EPA 200.8	3.47	µg/L	See Total Zn	MS4P MAL	19.3	
Total Zinc	1	EPA 200.8	3.47	µg/L	641.3	MS4P MAL	103	
E. coli	235	SM 9223-B-b	<2	MPN/100mL	235	MS4P MAL	**12,000**	

RH/SGR WQG 2019-2020 Wet-Weather Event #4 on 03/12/2020
Water Quality Limitations and Analytical Results for RHSGR_BLC in Big Dalton Wash

DRAFT

Analyte or Parameter	Table E-2 Minimum Levels	Analytical Method Identifier	Method Detection Limit (MDL)	Units	RHSGR_BLC SWO Target Effluent Limitations		Analytical Results	Analytical Results Qualifiers
					Numeric Value	Regulatory Source		
CIMP Stormwater Outfall Site Constituents								
Flow	N/A	Field	0	AcFt/Day	None	MS4PE VIII.B.1.c.i	>20% baseline	
Dissolved Oxygen	5	Field	0.1	mg/L	None	MS4PE VIII.B.1.c.v	10.42	
pH	0-14	Field	0.1	pH Units	6.0-9.0	MS4P MAL	8.5	
Temperature	N/A	Field	0	°C	None	MS4PE VIII.B.1.c.v	12.5	
Specific Conductivity	1	Field	1	µmhos/cm	None	MS4PE VIII.B.1.c.v	22.4	
Total Suspended Solids	2	SM 2540D	2.76	mg/L	264.1	MS4P MAL	48.3	
Total Hardness	2	SM 2340C	0.989	mg/L	None	MS4PE VIII.B.1.c.v	32	
Dissolved Copper	0.5	EPA 200.8	0.61	µg/L	See Total Cu	MS4P MAL	6.09	
Total Copper	0.5	EPA 200.8	0.61	µg/L	71.12	MS4P MAL	17	
Dissolved Lead	0.5	EPA 200.8	0.19	µg/L	See Total Pb	MS4P MAL	0.347	J
Total Lead	0.5	EPA 200.8	0.19	µg/L	102	MS4P MAL	7.87	
Dissolved Zinc	1	EPA 200.8	3.47	µg/L	See Total Zn	MS4P MAL	36.9	
Total Zinc	1	EPA 200.8	3.47	µg/L	641.3	MS4P MAL	111	
E. coli	235	SM 9223-B-b	<2	MPN/100mL	235	MS4P MAL	**13,000**	

RH/SGR WQG 2019-2020 Wet-Weather Event #4 on 03/12/2020
Water Quality Limitations and Analytical Results for RHSGR_BCD in San Gabriel River Reach 5

DRAFT

Analyte or Parameter	Table E-2 Minimum Levels	Analytical Method Identifier	Method Detection Limit (MDL)	Units	RHSGR_BCD SWO Target Effluent Limitations		Analytical Results	Analytical Results Qualifiers
					Numeric Value	Regulatory Source		
CIMP Stormwater Outfall Site Constituents								
Flow	N/A	Field	0	AcFt/Day	None	MS4PE VIII.B.1.c.i	>20% baseline	
Dissolved Oxygen	5	Field	0.1	mg/L	None	MS4PE VIII.B.1.c.v	10.42	
pH	0-14	Field	0.1	pH Units	6.0-9.0	MS4P MAL	8.5	
Temperature	N/A	Field	0	°C	None	MS4PE VIII.B.1.c.v	13.3	
Specific Conductivity	1	Field	1	µmhos/cm	None	MS4PE VIII.B.1.c.v	34.5	
Total Suspended Solids	2	SM 2540D	2.76	mg/L	264.1	MS4P MAL	83.3	
Total Hardness	2	SM 2340C	0.989	mg/L	None	MS4PE VIII.B.1.c.v	30	
Dissolved Copper	0.5	EPA 200.8	0.61	µg/L	See Total Cu	MS4P MAL	5.25	
Total Copper	0.5	EPA 200.8	0.61	µg/L	71.12	MS4P MAL	11.3	
Dissolved Lead	0.5	EPA 200.8	0.19	µg/L	See Total Pb	MS4P MAL	0.21	J
Total Lead	0.5	EPA 200.8	0.19	µg/L	102	MS4P MAL	4.34	
Dissolved Zinc	1	EPA 200.8	3.47	µg/L	See Total Zn	MS4P MAL	20.8	
Total Zinc	1	EPA 200.8	3.47	µg/L	641.3	MS4P MAL	52.4	
E. coli	235	SM 9223-B-b	<2	MPN/100mL	235	MS4P MAL	**3,100**	

Attachment B

Completed Field Log and Photograph Log

GENERAL INFORMATION

Date: Mar. 10, 2020

Project #: 14117 Arrival Time: 1250 Departure: 1359 Sampling Team (Initials): VB/SB

Site ID: RH3-ARC Picture Qty: 26 Photos: Upstream Y Downstream Y

GPS Coordinates: (lat) 34.089836 (lon) -118.033828 Camera # : 23

OBSERVATIONS & MEASUREMENTS

Weather: Sunny/Cloudy/Rain

Water Color: Light Brown In-Stream Activity: Ducks/Crow

Water Characteristics (flow type, odor, turbidity, floatables):

Laminar flow, few leaves, light brown, small trash.

Field Observations:

Trash: Minimal

Wildlife: Ducks / Crow

Rec Uses: ~~Hiker~~ Runners / Bikers

Homeless activity: N/A

Other:

In situ Water Quality Measurements

Time:	13:33
Temp (°C):	19°C
pH:	8.77
D.O. (mg/L):	10.19
Turbidity (NTU):	41.4
Specific Cond. (µS/cm):	143.7

COLLECTED WATER QUALITY SAMPLES

Sample ID	Analysis	Time	Total Volume
20200310RHSGR-RH3-ARC	TSS/Anions/~~Hardness~~	1320	1 5 liters
20200310RHSGR-RH3-DUP	Ammonia, Metals, Diss	1320	
20200310RHSGR-RH3-BLK	Metals, Mercury	1320	
	Also PCBs/SVOCs		
	~~E~~Coli	1350	

Field Blank ☑

Duplicate ☑

ADDITIONAL WATER QUALITY SAMPLING NOTES

Light rain off and on, got sunny @ times.

Insufficient flow was observed during aliquot 9 and 10. Samples were taken from make up bottles.

FLOW MEASUREMENTS

# of Aliquots	Sample Time	Aliquot Volume (%)	Depth relative to baseline (inches)
1	1100	10	1.5"
2	1120	10	1"
3	1140	10	1.25"
4	1200	10	1.25"
5	1220	10	1.25"
6	1240	10	1.5"
7	1300	10	1.5"
8	1320	10	1.25"
9		10	Sample taken from make up bottle
10		10	"
TOTAL		100%	

ADDITIONAL FLOW MEASUREMENT NOTES

N/A.

GENERAL INFORMATION

Date: 3-10-20

Project #: 14117 Arrival Time: 0950 Departure: 1330 Sampling Team (Initials): SB, JH

Site ID: SAW-PR Picture Qty: 26 Photos: Upstream ✓ Downstream ✓

GPS Coordinates: (lat) SEE CHAIN (lon) _____ Camera #: 10

OBSERVATIONS & MEASUREMENTS

Weather: RAIN, PARTLY CLOUDY, SUN, WARM

Water Color: CLEAR TAN In-Stream Activity: BLACK PHOEBE, BARN SWALLOW (PRD)

Water Characteristics (flow type, odor, turbidity, floatables):

LOW FLOWS, NO ODOR, CLEAR, NO FLOATABLES UNTIL ALIQUOT 9

Field Observations:

Trash: NONE IN WATER

Wildlife: SONGBIRDS

Rec Uses: NONE

Homeless activity: NONE

Other: ALGAE & PLANTS GROWING ON SAW-PR BOTTOM

In situ Water Quality Measurements

Time:	1324
Temp (°C):	18.9
pH:	9.08
D.O. (mg/L):	8.88
Turbidity (NTU):	43.3
Specific Cond. (µS/cm):	167.4

COLLECTED WATER QUALITY SAMPLES

Sample ID	Analysis	Time	Total Volume
SEE COC	SEE COC	1300	SEE COC

Field Blank ☐

Duplicate ☐

ADDITIONAL WATER QUALITY SAMPLING NOTES

FLOW MEASUREMENTS

# of Aliquots	Sample Time	Aliquot Volume (%)	Depth relative to baseline (inches)
1	1000	16.7	1.5
2	1020	16.7	1.5
3	1040	16.6	1.5
4	1100	10	1
5	1120	10	1
6	1140	10	0.5
7	1200	5	0.5
8	1220	5	0.5
9	1240	5	0,5
10	1300	5	2
TOTAL		100%	

ADDITIONAL FLOW MEASUREMENT NOTES

SMALL INCREASE IN FLOW RIGHT AFTER ALIQUOT 9 FROM RAIN SHOWERS AT ~ 1215. RAINED MUCH HARDER AS I WAS LEAVING AT 1330.

MAKE UP WATER FROM ALIQUOT 1, 2 & 3 USED AFTER ALIQUOT 6.

GENERAL INFORMATION

Date: 3/10/2020

Project #: 14117 Arrival Time: 9:45 Departure: 13:10 Sampling Team (Initials): CP

Site ID: SAN-DD Picture Qty: 11 Photos: Upstream ✓ Downstream ✓

GPS Coordinates: (lat) 34.10929 2°N (lon) 118°01661 8° W Camera #: 8

OBSERVATIONS & MEASUREMENTS

Weather: Rain

Water Color: Clear In-Stream Activity: None

Water Characteristics (flow type, odor, turbidity, floatables):

Clear @ first turning to light brown w/ higher load (sediment TDS)

Field Observations:

Trash: Negligible

Wildlife: None

Rec Uses: Fishing in pools downstream

Homeless activity: None

Other:

In situ Water Quality Measurements

Time:	12:15	1305
Temp (°C):	19.2	21°C
pH:	9.51	9.39
D.O. (mg/L):	10.17	10.57
Turbidity (NTU):	9.5	7.9
Specific Cond. (µS/cm):	171.2	149.6

COLLECTED WATER QUALITY SAMPLES

Sample ID	Analysis	Time	Total Volume
20200310--RSCR SAN-DD	VOCs	13:00	~5L

Field Blank ☐

Duplicate ☐

ADDITIONAL WATER QUALITY SAMPLING NOTES

Flows decreased steadily through sample collection

Color changed ~~during the~~ about the 5th aliquot from clear to amber to light brown.

Aliquot 1-4: Clear Aliquot 5-7; Amber Aliquot 8-10: Lt. Brown

Very little trash & organic matter in flow (Negligible)

FLOW MEASUREMENTS

# of Aliquots	Sample Time	Aliquot Volume (%)	Depth relative to baseline (inches)
1	1006	5	3"
2	1020	5	3"
3	1040	5	2 1/2"
4	1100	10	2 1/2"
5	1120	10	2"
6	1140	10	2"
7	1200	15	1 1/2"
8	1220	15	1 1/2"
9	1240	15	1"
10	1300	10	1"
TOTAL		100%	—

ADDITIONAL FLOW MEASUREMENT NOTES

Decreased steadily - initial aliquot, flow in channel ~ 3 fps @ 3" deep; middle aliquots, flow in channel ~ 1½ fps @ 2" deep; last aliquots, flow in channel ~ 1 fps @ 1" deep

GENERAL INFORMATION

Date: 3/10/2020

Project #: 14117 Arrival Time: 1000 Departure: 14:00 Sampling Team (Initials): KH

Site ID: RHSGR-ALA Picture Qty: 22 Photos: Upstream ✓ Downstream ✓

GPS Coordinates: (lat) 24°07'39" (lon) 118° 02' 23.4" Camera # : 25

OBSERVATIONS & MEASUREMENTS

Weather: rainy

Water Color: clear, light brown In-Stream Activity: none (flow)

Water Characteristics (flow type, odor, turbidity, floatables):

no odor, turbidity is average (some discoloration + organic debris), organic/leaf debris (some)

Field Observations:

Trash: minimal

Wildlife: none

Rec Uses: none

Homeless activity: none

Other: some leaf debris

In situ Water Quality Measurements

Time:	13:20
Temp (°C):	19.5°
pH:	7.69
D.O. (mg/L):	9.09
Turbidity (NTU):	24.4
Specific Cond. (µS/cm):	3.6 ?

COLLECTED WATER QUALITY SAMPLES

Sample ID	Analysis	Time	Total Volume
~~RHSGR~~ KH	TSS, Anions,		~5L
20200310RHSGR-ALA	total hardness, Ammonia N		
	total metals, dissolved		
	metals, mercury	13:20	
	bacteria	~~14:00~~ KH	

Field Blank ☐ > none

Duplicate ☐

ADDITIONAL WATER QUALITY SAMPLING NOTES

no additional notes

FLOW MEASUREMENTS

budget (original) goal

actual (w/ makeup water)

# of Aliquots	Sample Time	Aliquot Volume (%)	Depth relative to baseline (inches)
1	11:00	5% ~~15%~~ 15%	1.5" – 2"
2	11:20	5% ~~20%~~ 15%	1.5" – 2"
3	11:40	5% ~~20~~ 15%	1.5" – 2"
4	12:00	10% 15%	1.5"
5	12:20	10% 15%	1.5"
6	12:40	10% 15%	1"
7	13:00	15% 10%	1"
8	13:20	~~15~~ 0%	} minimal flows
9	13:40	15% 0%	
10	14:00	10% 0%	
TOTAL		100%	

ADDITIONAL FLOW MEASUREMENT NOTES

flows started to decrease – used makeup water as indicated above

GENERAL INFORMATION

Date: 3-10-20

Project #: 14117 Arrival Time: 0950 Departure: 1330 Sampling Team (Initials): SB, JH

Site ID: PRD Picture Qty: 26 Photos: Upstream __ Downstream __

GPS Coordinates: (lat) SEE CHAIN (lon) _____ Camera # : _____

OBSERVATIONS & MEASUREMENTS

Weather: RAIN, SUN, PARTLY CLOUDY, WARM

Water Color: CLEAR TAN In-Stream Activity: SONGBIRDS

Water Characteristics (flow type, odor, turbidity, floatables):

LOW FLOW, LAMINAR, NO ODOR, NO FLOATABLES

Field Observations:

Trash: NONE IN STREAM

Wildlife: BARN SWALLOWS & BLACK PHOEBES

Rec Uses: NONE

Homeless activity: NONE

Other: _____

In situ Water Quality Measurements

Time:	1321
Temp (°C):	18.7
pH:	9.65
D.O. (mg/L):	9.23
Turbidity (NTU):	30.3
Specific Cond. (µS/cm):	132.8

COLLECTED WATER QUALITY SAMPLES

Sample ID	Analysis	Time	Total Volume
SEE COC	SEE COC	1310	NS SEE COC
20200310 RHSGR-PRD	Various		

Field Blank ☐

Duplicate ☐

ADDITIONAL WATER QUALITY SAMPLING NOTES

FLOW MEASUREMENTS

# of Aliquots	Sample Time	Aliquot Volume (%)	Depth relative to baseline (inches)
1	1010	16.7	1.5
2	1030	16.7	1.5
3	1050	16.6	1.5
4	1110	10	1
5	1130	10	1
6	1150	10	0.5
7	1210	5	0.5
8	1230	5	0.5
9	1250	5	0.5
10	1310	5	2
TOTAL		100%	

ADDITIONAL FLOW MEASUREMENT NOTES

SMALL INCREASE IN FLOWS RIGHT BEFORE ALIQUOT 10 FROM RAIN SHOWERS @ ~1215. RAINED HARDER AS I WAS LEAVING AT 1330.

MAKE UP WATER FROM ALIQUOT 1, 2, 3 USED AFTER ALIQUOT 6.

GENERAL INFORMATION

Date: 3/12/2020

Project #: 14117:23 Arrival Time : 1355 Departure: 1710 Sampling Team (Initials): CK

Site ID: LDW-BDW Picture Qty: 9 Photos: Upstream 3 Downstream 3

GPS Coordinates: (lat) 34°05'57.5 (lon) 117°55'33.1 Camera # : 14

OBSERVATIONS & MEASUREMENTS

Weather: cloudy, rainy, windy

Water Color: light brown In-Stream Activity: none

Water Characteristics (flow type, odor, turbidity, floatables):

fast-flowing.

Field Observations:

Trash: minimal

Wildlife: none

Rec Uses: none

Homeless activity: none

Other: Caltrans/county workers downstream

In situ Water Quality Measurements

Time:	17:07
Temp (°C):	12.7
pH:	7.95
D.O. (mg/L):	10.34
Turbidity (NTU):	22
Specific Cond. (µS/cm):	34

COLLECTED WATER QUALITY SAMPLES

Sample ID	Analysis	Time	Total Volume
20200312RMSGRLDWBDW	VarioSVS	17:00	~10L
e. Coli		17:07	
Duplicates		17:00	
Blank water		17:07	

Field Blank ☒

Duplicate ☒

ADDITIONAL WATER QUALITY SAMPLING NOTES

FLOW MEASUREMENTS

# of Aliquots	Sample Time	Aliquot Volume (%)	Depth relative to baseline (inches)
1	1400	5	8"
2	1420	5	8 "
3	1440	5	8 "
4	1500	10	8 "
5	1520	10	8 "
6	1540	10	10 "
7	1600	15	10 "
8	1620	15	10 "
9	1640	15	10 "
10	1700	10	10 "
TOTAL	3 hours	100%	

ADDITIONAL FLOW MEASUREMENT NOTES

GENERAL INFORMATION

Date: 03/12/2020

Project #: 14117.25 Arrival Time: 12:49 Departure: 16:10 Sampling Team (Initials): RK/MB

Site ID: RH/SGR BCD Picture Qty: ~15 Photos: Upstream ✓ Downstream ✓

GPS Coordinates: (lat) 34.1438 (lon) -117.9314 Camera # : 12

OBSERVATIONS & MEASUREMENTS

Weather: Cloudy/Rain

Water Color: Brown to light brown In-Stream Activity: None

Water Characteristics (flow type, odor, turbidity, floatables):

Suspended sediment, organic floatables

Field Observations:

Trash: None in water.

Wildlife: None

Rec Uses: None in water

Homeless activity: Yes, homeless walking along channel & bike path; observed about 30 individuals

Other:

In situ Water Quality Measurements

YSI #2

Time:	16:05
Temp (°C):	13.3
pH:	8.50
D.O. (mg/L):	10.42
Turbidity (NTU):	35.41
Specific Cond. (µS/cm):	34.5

COLLECTED WATER QUALITY SAMPLES

Sample ID	Analysis	Time	Total Volume
20200312 RHSGR-BCD	Various. See COC	16:00	~2L

Field Blank ☐

Duplicate ☐

ADDITIONAL WATER QUALITY SAMPLING NOTES

At aliquot 3, flows began to clear from dark brown to light brown. persistent suspended particulates and organic matter floatables. Active homeless encampment roughly 200 feet South of sampling location. Only trash observed was from encampments and not in the water.

FLOW MEASUREMENTS

# of Aliquots	Sample Time	Aliquot Volume (%)	Depth relative to baseline (inches)
1	13:00	5	3.0
2	13:20	5	3.5
3	13:40	5	5.0
4	14:00	10	5.5
5	14:20	10	6.0
6	14:40	10	6.0
7	15:00	15	6.0
8	15:20	15	5.0
9	15:40	15	5.0
10	16:00	10	5.0
TOTAL	16:20	100%	

ADDITIONAL FLOW MEASUREMENT NOTES

GENERAL INFORMATION

Date: 03/18/2020

Project #: 14117.25 Arrival Time: 13:00 Departure: 16:00 Sampling Team (Initials): EH

Site ID: RH/SGR BLC Picture Qty: ~30 Photos: Upstream X Downstream X

GPS Coordinates: (lat) 34.110687 (lon) -117.890451 Camera # : 22

OBSERVATIONS & MEASUREMENTS

Weather: Cloudy, rain

Water Color: brown-gray tint In-Stream Activity: None

Water Characteristics (flow type, odor, turbidity, floatables):

Suspended particles, leaves in water

Field Observations:

Trash: Plastics / tires

Wildlife: None

Rec Uses: None

Homeless activity: people walking around channel

Other:

In situ Water Quality Measurements

Time:	16:15
Temp (°C):	12.5
pH:	8.50
D.O. (mg/L):	10.42
Turbidity (NTU):	24.1
Specific Cond. (µS/cm):	22.4

COLLECTED WATER QUALITY SAMPLES

Sample ID	Analysis	Time	Total Volume
20200312RHSGR-BLC	Various See COC	16:00	~3L

Field Blank ☐

Duplicate ☐

ADDITIONAL WATER QUALITY SAMPLING NOTES

Lots of leaves in channel, flow was consistent throughout sampling. Homeless people walking nearby.

FLOW MEASUREMENTS

# of Aliquots	Sample Time	Aliquot Volume (%)	Depth relative to baseline (inches)
1	13:00	5	2
2	13:20	5	2
3	13:40	5	2
4	14:00	10	2.5
5	14:20	10	2.5
6	14:40	10	3
7	15:00	15	3
8	15:20	15	3
9	16:40	15	3
10	16:00	10	3
TOTAL		100%	

ADDITIONAL FLOW MEASUREMENT NOTES

GENERAL INFORMATION

Date: 3/12/2020

Project #: 14117.26 Arrival Time: 13:00 Departure: 16:20 Sampling Team (Initials): KH

Site ID: RHSGR - BRD Picture Qty: 28 Photos: Upstream ✓ Downstream ✓

GPS Coordinates: (lat) 39°08'08" (lon) 117°57'21" Camera #: 25

OBSERVATIONS & MEASUREMENTS

Weather: raining

Water Color: clear/light brown In-Stream Activity: flow

Water Characteristics (flow type, odor, turbidity, floatables):

wet weather flows, no odor, relatively clear w/ yard waste/organic material

Field Observations:

Trash: minimal - none

Wildlife: none observed

Rec Uses: none observed

Homeless activity: none observed

Other:

In situ Water Quality Measurements

Time:	16:20
Temp (°C):	12.9
pH:	7.92
D.O. (mg/L):	10.55
Turbidity (NTU):	76
Specific Cond. (µS/cm):	50.3

COLLECTED WATER QUALITY SAMPLES

Sample ID	Analysis	Time	Total Volume
20200312RHSGR-BRD	TSS		~1.5 L
	Total metals		
	total hardness		
	dissolved metals	↓	
	bacteria	16:00	

16:20 for bacteria

Field Blank ☐ > N/A

Duplicate ☐

ADDITIONAL WATER QUALITY SAMPLING NOTES

bacteria taken when meter arrived

FLOW MEASUREMENTS

# of Aliquots	Sample Time	Aliquot Volume (%)	Depth relative to baseline (inches)
1	13:00	5%	2" ~5 ft/sec
2	13:20	5%	2"-3"
3	13:40	5%	3"
4	14:00	10%	3"
5	14:20	10%	3"
6	14:40	10%	2.5"
7	15:00	15%	4"
8	15:20	15%	4"
9	15:40	15%	4"
10	16:00	10%	4.5"
TOTAL		100%	

ADDITIONAL FLOW MEASUREMENT NOTES

Photo: 1 **Location ID:** RH3_ARC **Date:** 03/10/2020 **Description:** Upstream view from RH3_ARC LTA Receiving Water Monitoring Location	

Photo: 2 **Location ID:** RH3_ARC **Date:** 03/10/2020 **Description:** Downstream view from RH3_ARC LTA Receiving Water Monitoring Location	

Photo: 3 **Location ID:** LDW_BDW **Date:** 03/12/2020 **Description:** Upstream view from Little Dalton Wash LTA Receiving Water Monitoring Location	

Photo: 4 **Location ID:** LDW_BDW **Date:** 03/12/2020 **Description:** Downstream view from Little Dalton Wash LTA Receiving Water Monitoring Location	

Photo: 5 **Location ID:** SAN_DD **Date:** 03/10/2020 **Description:** Upstream view from SAN_DD	

Photo: 6 **Location ID:** SAN_DD **Date:** 03/10/2020 **Description:** Downstream view from SAN_DD	

Photo: 7 **Location ID:** SAW_PR **Date:** 03/10/2020 **Description:** Upstream view from SAW_PR	

Photo: 8 **Location ID:** SAW_PR **Date:** 03/10/2020 **Description:** Downstream view from SAW_PR	

Photo: 9 **Location ID:** PRD **Date:** 03/10/2020 **Description:** Upstream view from PRD	

Photo: 10 **Location ID:** PRD **Date:** 03/10/2020 **Description:** Downstream view from PRD	

Photo: 11 **Location ID:** BRD **Date:** 03/12/2020 **Description:** Upstream view from BRD	

Photo: 12 **Location ID:** BRD **Date:** 03/12/2020 **Description:** Downstream view from BRD	

Photo: 13 **Location ID:** ALA **Date:** 03/10/2020 **Description:** Upstream view from ALA	

Photo: 14 **Location ID:** ALA **Date:** 03/10/2020 **Description:** Downstream view from ALA	

Photo: 15 **Location ID:** BCD **Date:** 03/12/2020 **Description:** Sampling location at BCD	

Photo: 16 **Location ID:** BCD **Date:** 03/12/2020 **Description:** Downstream view from BCD	

Photo: 17 **Location ID:** BLC **Date:** 03/12/2020 **Description:** Downstream view from BLC	

Photo: 18 **Location ID:** BLC **Date:** 03/12/2020 **Description:** View of outfall and sampling location at BLC	

Attachment C

Laboratory Reports with Completed Chain of Custodies

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-23054-1
Client Project/Site: RH/SGR WQG 14117:23

For:
CWE Corporation
1561 E. Orangethorpe Avenue
Suite 240
Fullerton, California 92831-5202

Attn: Gerald Greene

Authorized for release by:
3/23/2020 11:04:58 AM

Lori Thompson, Project Manager I
(714)895-5494
lorithompson@eurofinsus.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Job ID: 570-23054-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-23054-1

Comments
No additional comments.

Receipt
The samples were received on 3/10/2020 3:52 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.6º C.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-56674. LCS/D performed to meet QC requirement.

Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-56831. Preformed LCS and LCSD to QC requirements.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Lab Admin
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work
Method Subcontract Low Level Mercury: This method was subcontracted to Eurofins Frontier Global Sciences LLC. The subcontract laboratory certification is different from that of the facility issuing the final report.

Detection Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Client Sample ID: 20200310RHSGR-RH3-ARC — Lab Sample ID: 570-23054-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrite as N	0.15		0.10	0.027	mg/L	1		300.0	Total/NA
Nitrate as N	1.3		0.10	0.045	mg/L	1		300.0	Total/NA
Copper	0.0301		0.00100	0.000610	mg/L	1		200.8	Total Recoverable
Lead	0.00823		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Zinc	0.106		0.00500	0.00347	mg/L	1		200.8	Total Recoverable
Copper	0.0192		0.00100	0.000610	mg/L	1		200.8	Dissolved
Lead	0.00111		0.00100	0.000190	mg/L	1		200.8	Dissolved
Zinc	0.0366		0.00500	0.00347	mg/L	1		200.8	Dissolved
Hardness as calcium carbonate	100		20.0	9.89	mg/L	10		SM 2340C	Total/NA
Total Suspended Solids	56.7		3.33	2.76	mg/L	1		SM 2540D	Total/NA
Ammonia (as N)	0.280		0.100	0.0665	mg/L	1		SM 4500 NH3 C	Total/NA

Client Sample ID: 20200310RHSGR-RH3-DUP — Lab Sample ID: 570-23054-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrite as N	0.11		0.10	0.027	mg/L	1		300.0	Total/NA
Nitrate as N	1.3		0.10	0.045	mg/L	1		300.0	Total/NA
Copper	0.0297		0.00100	0.000610	mg/L	1		200.8	Total Recoverable
Lead	0.00791		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Zinc	0.103		0.00500	0.00347	mg/L	1		200.8	Total Recoverable
Hardness as calcium carbonate	100		20.0	9.89	mg/L	10		SM 2340C	Total/NA
Total Suspended Solids	58.0		3.33	2.76	mg/L	1		SM 2540D	Total/NA
Ammonia (as N)	0.280		0.100	0.0665	mg/L	1		SM 4500 NH3 C	Total/NA

Client Sample ID: 20200310RHSGR-RH3-BLK — Lab Sample ID: 570-23054-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience LLC

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Client Sample ID: 20200310RHSGR-RH3-BLK
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-3
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		5.3	3.6	ug/L		03/12/20 13:15	03/16/20 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*92*		*35 - 123*	*03/12/20 13:15*	*03/16/20 16:41*	*1*
2-Fluorobiphenyl (Surr)	*66*		*33 - 99*	*03/12/20 13:15*	*03/16/20 16:41*	*1*
2-Fluorophenol (Surr)	*51*		*15 - 79*	*03/12/20 13:15*	*03/16/20 16:41*	*1*
Nitrobenzene-d5 (Surr)	*70*		*37 - 107*	*03/12/20 13:15*	*03/16/20 16:41*	*1*
Phenol-d6 (Surr)	*32*		*6 - 54*	*03/12/20 13:15*	*03/16/20 16:41*	*1*
p-Terphenyl-d14 (Surr)	*65*		*42 - 106*	*03/12/20 13:15*	*03/16/20 16:41*	*1*

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Method: 608.3 - Organochlorine Pesticides in Water

Client Sample ID: 20200310RHSGR-RH3-BLK
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-3
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		0.0042	0.0022	ug/L		03/11/20 18:25	03/13/20 13:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*50 - 135*	*03/11/20 18:25*	*03/13/20 13:54*	*1*
DCB Decachlorobiphenyl (Surr)	*75*		*50 - 135*	*03/11/20 18:25*	*03/13/20 13:54*	*1*

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: 20200310RHSGR-RH3-ARC
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	**0.15**		0.10	0.027	mg/L			03/10/20 22:39	1
Nitrate as N	**1.3**		0.10	0.045	mg/L			03/10/20 22:39	1

Client Sample ID: 20200310RHSGR-RH3-DUP
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-2
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	**0.11**		0.10	0.027	mg/L			03/10/20 22:59	1
Nitrate as N	**1.3**		0.10	0.045	mg/L			03/10/20 22:59	1

Client Sample ID: 20200310RHSGR-RH3-BLK
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-3
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.10	0.027	mg/L			03/10/20 23:19	1
Nitrate as N	ND		0.10	0.045	mg/L			03/10/20 23:19	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: 20200310RHSGR-RH3-ARC
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 18:30	03/19/20 22:44	1
Copper	**0.0301**		0.00100	0.000610	mg/L		03/19/20 18:30	03/19/20 22:44	1
Lead	**0.00823**		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 22:44	1
Zinc	**0.106**		0.00500	0.00347	mg/L		03/19/20 18:30	03/19/20 22:44	1

Client Sample ID: 20200310RHSGR-RH3-DUP
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-2
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 18:30	03/19/20 22:46	1
Copper	**0.0297**		0.00100	0.000610	mg/L		03/19/20 18:30	03/19/20 22:46	1
Lead	**0.00791**		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 22:46	1
Zinc	**0.103**		0.00500	0.00347	mg/L		03/19/20 18:30	03/19/20 22:46	1

Client Sample ID: 20200310RHSGR-RH3-BLK
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-3
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 18:30	03/19/20 22:49	1
Copper	ND		0.00100	0.000610	mg/L		03/19/20 18:30	03/19/20 22:49	1
Lead	ND		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 22:49	1
Zinc	ND		0.00500	0.00347	mg/L		03/19/20 18:30	03/19/20 22:49	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: 20200310RHSGR-RH3-ARC
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 20:00	03/20/20 13:16	1
Copper	**0.0192**		0.00100	0.000610	mg/L		03/19/20 20:00	03/20/20 13:16	1
Lead	**0.00111**		0.00100	0.000190	mg/L		03/19/20 20:00	03/20/20 13:16	1
Zinc	**0.0366**		0.00500	0.00347	mg/L		03/19/20 20:00	03/20/20 13:16	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

General Chemistry

Client Sample ID: 20200310RHSGR-RH3-ARC
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	100		20.0	9.89	mg/L			03/16/20 16:03	10
Total Suspended Solids	56.7		3.33	2.76	mg/L			03/13/20 13:35	1
Ammonia (as N)	0.280		0.100	0.0665	mg/L		03/20/20 10:00	03/20/20 23:23	1

Client Sample ID: 20200310RHSGR-RH3-DUP
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-2
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	100		20.0	9.89	mg/L			03/16/20 16:03	10
Total Suspended Solids	58.0		3.33	2.76	mg/L			03/13/20 13:35	1
Ammonia (as N)	0.280		0.100	0.0665	mg/L		03/20/20 10:00	03/20/20 23:23	1

Client Sample ID: 20200310RHSGR-RH3-BLK
Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-3
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.00	0.989	mg/L			03/16/20 16:03	1
Total Suspended Solids	ND		1.00	0.829	mg/L			03/13/20 13:35	1
Ammonia (as N)	ND		0.100	0.0665	mg/L		03/20/20 10:00	03/20/20 23:23	1

Surrogate Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Surface Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(35-123)	(33-99)	(15-79)	(37-107)	(6-54)	(42-106)
570-23054-3	20200310RHSGR-RH3-BLK	92	66	51	70	32	65

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(35-123)	(33-99)	(15-79)	(37-107)	(6-54)	(42-106)
LCS 570-56831/2-A	Lab Control Sample	100	74	56	80	35	72
LCSD 570-56831/3-A	Lab Control Sample Dup	108	77	55	81	35	76
MB 570-56831/1-A	Method Blank	90	74	55	77	34	72

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Surface Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(50-135)	(50-135)
570-23054-3	20200310RHSGR-RH3-BLK	73	75

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(50-135)	(50-135)
LCS 570-56674/2-A	Lab Control Sample	88	81
LCSD 570-56674/3-A	Lab Control Sample Dup	87	87
MB 570-56674/1-A	Method Blank	65	70

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 570-56831/1-A
Matrix: Water
Analysis Batch: 57460

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56831

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		5.0	3.4	ug/L		03/12/20 13:15	03/16/20 13:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*90*		*35 - 123*	*03/12/20 13:15*	*03/16/20 13:54*	*1*
2-Fluorobiphenyl (Surr)	*74*		*33 - 99*	*03/12/20 13:15*	*03/16/20 13:54*	*1*
2-Fluorophenol (Surr)	*55*		*15 - 79*	*03/12/20 13:15*	*03/16/20 13:54*	*1*
Nitrobenzene-d5 (Surr)	*77*		*37 - 107*	*03/12/20 13:15*	*03/16/20 13:54*	*1*
Phenol-d6 (Surr)	*34*		*6 - 54*	*03/12/20 13:15*	*03/16/20 13:54*	*1*
p-Terphenyl-d14 (Surr)	*72*		*42 - 106*	*03/12/20 13:15*	*03/16/20 13:54*	*1*

Lab Sample ID: LCS 570-56831/2-A
Matrix: Water
Analysis Batch: 57460

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56831

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	20.0	17.69		ug/L		88	17 - 168
Dimethyl phthalate	20.0	19.91		ug/L		100	1 - 120
Di-n-butyl phthalate	20.0	22.01		ug/L		110	1 - 120
Fluoranthene	20.0	20.51		ug/L		103	26 - 137
Fluorene	20.0	19.80		ug/L		99	59 - 121
Naphthalene	20.0	16.45		ug/L		82	21 - 133
Phenanthrene	20.0	19.20		ug/L		96	54 - 120
Phenol	20.0	7.775		ug/L		39	5 - 120
Pyrene	20.0	17.90		ug/L		89	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*100*		*35 - 123*
2-Fluorobiphenyl (Surr)	*74*		*33 - 99*
2-Fluorophenol (Surr)	*56*		*15 - 79*
Nitrobenzene-d5 (Surr)	*80*		*37 - 107*
Phenol-d6 (Surr)	*35*		*6 - 54*
p-Terphenyl-d14 (Surr)	*72*		*42 - 106*

Lab Sample ID: LCSD 570-56831/3-A
Matrix: Water
Analysis Batch: 57460

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56831

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene	20.0	18.41		ug/L		92	17 - 168	4	87
Dimethyl phthalate	20.0	20.47		ug/L		102	1 - 120	3	183
Di-n-butyl phthalate	20.0	22.17		ug/L		111	1 - 120	1	47
Fluoranthene	20.0	20.87		ug/L		104	26 - 137	2	66
Fluorene	20.0	20.42		ug/L		102	59 - 121	3	38
Naphthalene	20.0	17.07		ug/L		85	21 - 133	4	65
Phenanthrene	20.0	19.96		ug/L		100	54 - 120	4	39
Phenol	20.0	7.765		ug/L		39	5 - 120	0	64
Pyrene	20.0	18.89		ug/L		94	52 - 120	5	49

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCSD 570-56831/3-A
Matrix: Water
Analysis Batch: 57460

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56831

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*108*		*35 - 123*
2-Fluorobiphenyl (Surr)	*77*		*33 - 99*
2-Fluorophenol (Surr)	*55*		*15 - 79*
Nitrobenzene-d5 (Surr)	*81*		*37 - 107*
Phenol-d6 (Surr)	*35*		*6 - 54*
p-Terphenyl-d14 (Surr)	*76*		*42 - 106*

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-56674/1-A
Matrix: Water
Analysis Batch: 56924

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56674

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		0.0013	0.00070	ug/L		03/11/20 18:25	03/13/20 13:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*50 - 135*	*03/11/20 18:25*	*03/13/20 13:11*	*1*
DCB Decachlorobiphenyl (Surr)	*70*		*50 - 135*	*03/11/20 18:25*	*03/13/20 13:11*	*1*

Lab Sample ID: LCS 570-56674/2-A
Matrix: Water
Analysis Batch: 56924

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56674

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Endosulfan I			0.0333	0.03775		ug/L		113	45 - 153		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*88*		*50 - 135*
DCB Decachlorobiphenyl (Surr)	*81*		*50 - 135*

Lab Sample ID: LCSD 570-56674/3-A
Matrix: Water
Analysis Batch: 56924

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56674

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endosulfan I			0.0333	0.03484		ug/L		105	45 - 153	8	28

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*87*		*50 - 135*
DCB Decachlorobiphenyl (Surr)	*87*		*50 - 135*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-56189/10
Matrix: Water
Analysis Batch: 56189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.10	0.027	mg/L			03/10/20 16:42	1
Nitrate as N	ND		0.10	0.045	mg/L			03/10/20 16:42	1

Lab Sample ID: LCS 570-56189/11
Matrix: Water
Analysis Batch: 56189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.463		mg/L		99	90 - 110
Nitrate as N	5.00	5.232		mg/L		105	90 - 110

Lab Sample ID: LCSD 570-56189/12
Matrix: Water
Analysis Batch: 56189

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
Nitrite as N	2.50	2.475		mg/L		99	90 - 110	0	15
Nitrate as N	5.00	5.035		mg/L		101	90 - 110	4	15

Lab Sample ID: 570-23043-A-1 MS
Matrix: Water
Analysis Batch: 56189

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.084	J	2.50	2.686		mg/L		104	80 - 120
Nitrate as N	0.91		5.00	6.271		mg/L		107	80 - 120

Lab Sample ID: 570-23043-A-1 MSD
Matrix: Water
Analysis Batch: 56189

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.084	J	2.50	2.684		mg/L		104	80 - 120	0	20
Nitrate as N	0.91		5.00	6.290		mg/L		108	80 - 120	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-58311/1-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 18:30	03/19/20 21:29	1
Copper	ND		0.00100	0.000610	mg/L		03/19/20 18:30	03/19/20 21:29	1
Lead	ND		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 21:29	1
Zinc	ND		0.00500	0.00347	mg/L		03/19/20 18:30	03/19/20 21:29	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-58311/2-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cadmium			0.100	0.1042		mg/L		104	80 - 120		
Copper			0.100	0.09763		mg/L		98	80 - 120		
Lead			0.100	0.09894		mg/L		99	80 - 120		
Zinc			0.100	0.09964		mg/L		100	80 - 120		

Lab Sample ID: LCSD 570-58311/3-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium			0.100	0.1040		mg/L		104	80 - 120	0	20
Copper			0.100	0.09870		mg/L		99	80 - 120	1	20
Lead			0.100	0.1014		mg/L		101	80 - 120	2	20
Zinc			0.100	0.1021		mg/L		102	80 - 120	2	20

Lab Sample ID: 570-23062-C-1-B MS
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cadmium	ND		0.100	0.1065		mg/L		107	80 - 120		
Copper	0.0283		0.100	0.1262		mg/L		98	80 - 120		
Lead	0.0117		0.100	0.1131		mg/L		101	80 - 120		
Zinc	0.174		0.100	0.2814		mg/L		107	80 - 120		

Lab Sample ID: 570-23062-C-1-C MSD
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		0.100	0.1035		mg/L		104	80 - 120	3	20
Copper	0.0283		0.100	0.1234		mg/L		95	80 - 120	2	20
Lead	0.0117		0.100	0.1106		mg/L		99	80 - 120	2	20
Zinc	0.174		0.100	0.2768		mg/L		103	80 - 120	2	20

Lab Sample ID: MB 570-58477/1-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 20:00	03/20/20 12:50	1
Copper	ND		0.00100	0.000610	mg/L		03/19/20 20:00	03/20/20 12:50	1
Lead	ND		0.00100	0.000190	mg/L		03/19/20 20:00	03/20/20 12:50	1
Zinc	ND		0.00500	0.00347	mg/L		03/19/20 20:00	03/20/20 12:50	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-58477/2-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cadmium			0.100	0.1022		mg/L		102	80 - 120		
Copper			0.100	0.09978		mg/L		100	80 - 120		
Lead			0.100	0.09984		mg/L		100	80 - 120		
Zinc			0.100	0.1049		mg/L		105	80 - 120		

Lab Sample ID: LCSD 570-58477/3-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium			0.100	0.1012		mg/L		101	80 - 120	1	20
Copper			0.100	0.09919		mg/L		99	80 - 120	1	20
Lead			0.100	0.09802		mg/L		98	80 - 120	2	20
Zinc			0.100	0.1038		mg/L		104	80 - 120	1	20

Lab Sample ID: 570-23042-C-1-B MS
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 58477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cadmium	ND		0.100	0.1071		mg/L		107	80 - 120		
Copper	0.0116		0.100	0.1094		mg/L		98	80 - 120		
Lead	0.000588	J	0.100	0.1053		mg/L		105	80 - 120		
Zinc	0.0147		0.100	0.1245		mg/L		110	80 - 120		

Lab Sample ID: 570-23042-C-1-C MSD
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 58477

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		0.100	0.1052		mg/L		105	80 - 120	2	20
Copper	0.0116		0.100	0.1089		mg/L		97	80 - 120	0	20
Lead	0.000588	J	0.100	0.1051		mg/L		105	80 - 120	0	20
Zinc	0.0147		0.100	0.1206		mg/L		106	80 - 120	3	20

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 570-57613/1
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.00	0.989	mg/L			03/16/20 16:03	1

Lab Sample ID: LCS 570-57613/2
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate			10.0	10.00		mg/L		100	85 - 115		

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: LCS 570-57613/3
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate			100	102.0		mg/L		102	85 - 115		

Lab Sample ID: 570-23040-C-2 DU
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Hardness as calcium carbonate	160			140.0		mg/L				13	25

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-57127/1
Matrix: Water
Analysis Batch: 57127

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		1.00	0.829	mg/L			03/13/20 13:35	1

Lab Sample ID: LCS 570-57127/2
Matrix: Water
Analysis Batch: 57127

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			100	111.0		mg/L		111	85 - 115		

Lab Sample ID: LCSD 570-57127/3
Matrix: Water
Analysis Batch: 57127

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
Total Suspended Solids			100	112.0		mg/L		112	85 - 115	1	10

Lab Sample ID: 570-23068-B-1 DU
Matrix: Water
Analysis Batch: 57127

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	223			207.0		mg/L				7	10

Method: SM 4500 NH3 C - Ammonia

Lab Sample ID: MB 570-58738/1-A
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58738

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.100	0.0665	mg/L		03/20/20 10:00	03/20/20 23:23	1

Method: SM 4500 NH3 C - Ammonia (Continued)

Lab Sample ID: LCS 570-58738/2-A
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58738

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia (as N)			5.00	4.816		mg/L		96	80 - 120		

Lab Sample ID: LCSD 570-58738/3-A
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58738

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)			5.00	4.872		mg/L		97	80 - 120	1	20

Lab Sample ID: 570-23722-E-1-B DU
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 58738

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Ammonia (as N)	1.23			1.232		mg/L				0	25

QC Association Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

GC/MS Semi VOA

Prep Batch: 56831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-3	20200310RHSGR-RH3-BLK	Total/NA	Surface Water	625	
MB 570-56831/1-A	Method Blank	Total/NA	Water	625	
LCS 570-56831/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 570-56831/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 57460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-3	20200310RHSGR-RH3-BLK	Total/NA	Surface Water	625.1 SIM	56831
MB 570-56831/1-A	Method Blank	Total/NA	Water	625.1 SIM	56831
LCS 570-56831/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	56831
LCSD 570-56831/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	56831

GC Semi VOA

Prep Batch: 56674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-3	20200310RHSGR-RH3-BLK	Total/NA	Surface Water	608	
MB 570-56674/1-A	Method Blank	Total/NA	Water	608	
LCS 570-56674/2-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-56674/3-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 56924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-3	20200310RHSGR-RH3-BLK	Total/NA	Surface Water	608.3	56674
MB 570-56674/1-A	Method Blank	Total/NA	Water	608.3	56674
LCS 570-56674/2-A	Lab Control Sample	Total/NA	Water	608.3	56674
LCSD 570-56674/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	56674

HPLC/IC

Analysis Batch: 56189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-1	20200310RHSGR-RH3-ARC	Total/NA	Surface Water	300.0	
570-23054-2	20200310RHSGR-RH3-DUP	Total/NA	Surface Water	300.0	
570-23054-3	20200310RHSGR-RH3-BLK	Total/NA	Surface Water	300.0	
MB 570-56189/10	Method Blank	Total/NA	Water	300.0	
LCS 570-56189/11	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-56189/12	Lab Control Sample Dup	Total/NA	Water	300.0	
570-23043-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
570-23043-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 58311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-1	20200310RHSGR-RH3-ARC	Total Recoverable	Surface Water	200.8	
570-23054-2	20200310RHSGR-RH3-DUP	Total Recoverable	Surface Water	200.8	
570-23054-3	20200310RHSGR-RH3-BLK	Total Recoverable	Surface Water	200.8	
MB 570-58311/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58311/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58311/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23062-C-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	

Metals (Continued)

Prep Batch: 58311 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23062-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

Prep Batch: 58477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-1	20200310RHSGR-RH3-ARC	Dissolved	Surface Water	200.8	
MB 570-58477/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58477/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58477/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23042-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	
570-23042-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	

Analysis Batch: 58547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-1	20200310RHSGR-RH3-ARC	Total Recoverable	Surface Water	200.8	58311
570-23054-2	20200310RHSGR-RH3-DUP	Total Recoverable	Surface Water	200.8	58311
570-23054-3	20200310RHSGR-RH3-BLK	Total Recoverable	Surface Water	200.8	58311
MB 570-58311/1-A	Method Blank	Total Recoverable	Water	200.8	58311
LCS 570-58311/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58311
LCSD 570-58311/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58311
570-23062-C-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	58311
570-23062-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	58311

Analysis Batch: 58604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-1	20200310RHSGR-RH3-ARC	Dissolved	Surface Water	200.8	58477
MB 570-58477/1-A	Method Blank	Total Recoverable	Water	200.8	58477
LCS 570-58477/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58477
LCSD 570-58477/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58477
570-23042-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	58477
570-23042-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	58477

General Chemistry

Analysis Batch: 57127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-1	20200310RHSGR-RH3-ARC	Total/NA	Surface Water	SM 2540D	
570-23054-2	20200310RHSGR-RH3-DUP	Total/NA	Surface Water	SM 2540D	
570-23054-3	20200310RHSGR-RH3-BLK	Total/NA	Surface Water	SM 2540D	
MB 570-57127/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 570-57127/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 570-57127/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
570-23068-B-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 57613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-1	20200310RHSGR-RH3-ARC	Total/NA	Surface Water	SM 2340C	
570-23054-2	20200310RHSGR-RH3-DUP	Total/NA	Surface Water	SM 2340C	
570-23054-3	20200310RHSGR-RH3-BLK	Total/NA	Surface Water	SM 2340C	
MB 570-57613/1	Method Blank	Total/NA	Water	SM 2340C	
LCS 570-57613/2	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 570-57613/3	Lab Control Sample	Total/NA	Water	SM 2340C	

General Chemistry (Continued)

Analysis Batch: 57613 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-C-2 DU	Duplicate	Total/NA	Water	SM 2340C	

Prep Batch: 58738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-1	20200310RHSGR-RH3-ARC	Total/NA	Surface Water	SM 4500 NH3 B	
570-23054-2	20200310RHSGR-RH3-DUP	Total/NA	Surface Water	SM 4500 NH3 B	
570-23054-3	20200310RHSGR-RH3-BLK	Total/NA	Surface Water	SM 4500 NH3 B	
MB 570-58738/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 570-58738/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
LCSD 570-58738/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 B	
570-23722-E-1-B DU	Duplicate	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 58741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23054-1	20200310RHSGR-RH3-ARC	Total/NA	Surface Water	SM 4500 NH3 C	58738
570-23054-2	20200310RHSGR-RH3-DUP	Total/NA	Surface Water	SM 4500 NH3 C	58738
570-23054-3	20200310RHSGR-RH3-BLK	Total/NA	Surface Water	SM 4500 NH3 C	58738
MB 570-58738/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 C	58738
LCS 570-58738/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 C	58738
LCSD 570-58738/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 C	58738
570-23722-E-1-B DU	Duplicate	Total/NA	Water	SM 4500 NH3 C	58738

Lab Chronicle

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Client Sample ID: 20200310RHSGR-RH3-ARC

Lab Sample ID: 570-23054-1

Date Collected: 03/10/20 13:50
Matrix: Surface Water
Date Received: 03/10/20 15:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			56189	03/10/20 22:39	P6WT	ECL 1
	Instrument ID: IC7									
Dissolved	Prep	200.8			50 mL	50 mL	58477	03/19/20 20:00	WL8G	ECL 1
Dissolved	Analysis	200.8		1			58604	03/20/20 13:16	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total Recoverable	Prep	200.8			50 mL	50 mL	58311	03/19/20 18:30	WL8G	ECL 1
Total Recoverable	Analysis	200.8		1			58547	03/19/20 22:44	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total/NA	Analysis	SM 2340C		10	50 mL	50 mL	57613	03/16/20 16:03	KZ4O	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	300 mL	1000 mL	57127	03/13/20 13:35	YR9U	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Prep	SM 4500 NH3 B			500 mL	200 mL	58738	03/20/20 10:00	Y3IH	ECL 1
Total/NA	Analysis	SM 4500 NH3 C		1	200 mL	200 mL	58741	03/20/20 23:23	Y3IH	ECL 1
	Instrument ID: NOEQUIP									

Client Sample ID: 20200310RHSGR-RH3-DUP

Lab Sample ID: 570-23054-2

Date Collected: 03/10/20 13:50
Matrix: Surface Water
Date Received: 03/10/20 15:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			56189	03/10/20 22:59	P6WT	ECL 1
	Instrument ID: IC7									
Total Recoverable	Prep	200.8			50 mL	50 mL	58311	03/19/20 18:30	WL8G	ECL 1
Total Recoverable	Analysis	200.8		1			58547	03/19/20 22:46	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total/NA	Analysis	SM 2340C		10	50 mL	50 mL	57613	03/16/20 16:03	KZ4O	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	300 mL	1000 mL	57127	03/13/20 13:35	YR9U	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Prep	SM 4500 NH3 B			500 mL	200 mL	58738	03/20/20 10:00	Y3IH	ECL 1
Total/NA	Analysis	SM 4500 NH3 C		1	200 mL	200 mL	58741	03/20/20 23:23	Y3IH	ECL 1
	Instrument ID: NOEQUIP									

Client Sample ID: 20200310RHSGR-RH3-BLK

Lab Sample ID: 570-23054-3

Date Collected: 03/10/20 13:50
Matrix: Surface Water
Date Received: 03/10/20 15:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			943.8 mL	2 mL	56831	03/12/20 13:15	MYC2	ECL 1
Total/NA	Analysis	625.1 SIM		1			57460	03/16/20 16:41	N8CZ	ECL 1
	Instrument ID: GCMSJJJ									
Total/NA	Prep	608			962 mL	2 mL	56674	03/11/20 18:25	C4LT	ECL 1
Total/NA	Analysis	608.3		1			56924	03/13/20 13:54	UHHN	ECL 1
	Instrument ID: GC44									

Lab Chronicle

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Client Sample ID: 20200310RHSGR-RH3-BLK

Date Collected: 03/10/20 13:50
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23054-3

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			56189	03/10/20 23:19	P6WT	ECL 1
Total Recoverable	Prep	200.8			50 mL	50 mL	58311	03/19/20 18:30	WL8G	ECL 1
Total Recoverable	Analysis	200.8		1			58547	03/19/20 22:49	ZHW5	ECL 1
	Instrument ID:	ICPMS05								
Total/NA	Analysis	SM 2340C		1	50 mL	50 mL	57613	03/16/20 16:03	KZ4O	ECL 1
	Instrument ID:	NOEQUIP								
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	57127	03/13/20 13:35	YR9U	ECL 1
	Instrument ID:	NOEQUIP								
Total/NA	Prep	SM 4500 NH3 B			500 mL	200 mL	58738	03/20/20 10:00	Y3IH	ECL 1
Total/NA	Analysis	SM 4500 NH3 C		1	200 mL	200 mL	58741	03/20/20 23:23	Y3IH	ECL 1
	Instrument ID:	NOEQUIP								

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

FGS = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

Accreditation/Certification Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

Method Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Method	Method Description	Protocol	Laboratory
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	40CFR136A	ECL 1
608.3	Organochlorine Pesticides in Water	40CFR136A	ECL 1
300.0	Anions, Ion Chromatography	MCAWW	ECL 1
200.8	Metals (ICP/MS)	EPA	ECL 1
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	ECL 1
SM 4500 NH3 C	Ammonia	SM	ECL 1
1631	Low Level Mercury by 1631	EPA	FGS
200.8	Preparation, Total Recoverable Metals	EPA	ECL 1
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	ECL 1
625	Liquid-Liquid Extraction	40CFR136A	ECL 1
SM 4500 NH3 B	Distillation, Ammonia	SM	ECL 1

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
FGS = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

Sample Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23054-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-23054-1	20200310RHSGR-RH3-ARC	Surface Water	03/10/20 13:50	03/10/20 15:52	
570-23054-2	20200310RHSGR-RH3-DUP	Surface Water	03/10/20 13:50	03/10/20 15:52	
570-23054-3	20200310RHSGR-RH3-BLK	Surface Water	03/10/20 13:50	03/10/20 15:52	

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

16 March 2020

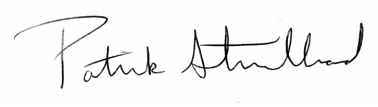
Lori Thompson
Eurofins Calscience, LLC
7440 Lincoln Way
Garden Grove, CA 92841

RE: Low Level Hg - 2019

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,



Patrick Garcia-Strickland
Business Unit Manager

eurofins | Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
20200310RHSGR-RH3-ARC (570-23054-1)	0C00051-01	Water	10-Mar-20 13:50	12-Mar-20 09:30
20200310RHSGR-RH3-DUP (570-23054-2)	0C00051-02	Water	10-Mar-20 13:50	12-Mar-20 09:30
20200310RHSGR-RH3-BLK (570-23054-3)	0C00051-03	Water	10-Mar-20 13:50	12-Mar-20 09:30

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 12-Mar-20 09:30. The samples were received intact, on-ice within a sealed cooler at

Cooler	Temp C°
Default Cooler	-1.2

SAMPLE PREPARATION AND ANALYSIS

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

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: Cal Science Date & Time Received: 3/12/20 ~~1100~~ 930 HJB 3/12/20 Date Labeled: 3/12/20 Labeled By: MS

Matrix: Water Received By: HJB Label Verified By: HJB 3-12-2020

# of Coolers Received: 1 Samples Arrived By: X 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:	Y	
Custody Seals are present and intact:	N	
Custody seals signed:	NA	

TID: 18113804 CF: -0.5 °C Date/time: 3/12/20 1006 By: HJB

Cooler 1:	-0.7 °C	w/ CF:	-1.2 °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:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N	

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

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

0C00051

0 C00 051

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Phone: 714-895-5494 Fax: 714-894-7501

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Thompson, Lori	Carrier Tracking No(s):	COC No: 570-25881.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lorithompson@eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Frontier Global Sciences LLC		Accreditations Required (See note):		Job #: 570-23054-1
Address: 5755 8th Street E, ,	Due Date Requested: 3/23/2020			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone:	PO #:			
Email:	WO #:			
Project Name: RH/SGR WQG 14117:23	Project #: 57000383			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Subcontract Low Level Mercury)/ 1631 Low Level Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
20200310RHSGR-RH3-ARC (570-23054-1)	3/10/20	13:50 Pacific		Water			X	1	10-Day TAT, J-flags req'd, Std Excel EDD req'd
20200310RHSGR-RH3-DUP (570-23054-2)	3/10/20	13:50 Pacific		Water			X	1	Standard TAT
20200310RHSGR-RH3-BLK (570-23054-3)	3/10/20	13:50 Pacific		Water			X	1	Standard TAT

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	3/11/20 1700		NS	3/12/2020 0930	EFGS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

7779 9786 2019

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

20200310RHSGR-RH3-ARC (570-23054-1)

0C00051-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**17.1**	0.83	5.00	ng/L	10	F003254	13-Mar-20	0C16007	13-Mar-20	EPA 1631E	

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.

Patrick Garcia-Strickland, Business Unit Manager

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Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

20200310RHSGR-RH3-DUP (570-23054-2)

0C00051-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**22.4**	0.83	5.00	ng/L	10	F003254	13-Mar-20	0C16007	13-Mar-20	EPA 1631E	

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

20200310RHSGR-RH3-BLK (570-23054-3)

0C00051-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**0.45**	0.08	0.50	ng/L	1	F003254	13-Mar-20	0C16007	13-Mar-20	EPA 1631E	J

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C16007 - F003257											
Cal Standard (0C16007-CAL1)					Prepared & Analyzed: 13-Mar-20						
Mercury	0.50	-		ng/L	0.50000		101				
Cal Standard (0C16007-CAL2)					Prepared & Analyzed: 13-Mar-20						
Mercury	1.01	-		ng/L	1.0000		101				
Cal Standard (0C16007-CAL3)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.98	-		ng/L	5.0000		99.6				
Cal Standard (0C16007-CAL4)					Prepared & Analyzed: 13-Mar-20						
Mercury	19.78	-		ng/L	20.000		98.9				
Cal Standard (0C16007-CAL5)					Prepared & Analyzed: 13-Mar-20						
Mercury	39.84	-		ng/L	40.000		99.6				
Calibration Blank (0C16007-CCB1)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.14	-		ng/L							U
Calibration Blank (0C16007-CCB2)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.14	-		ng/L							U
Calibration Blank (0C16007-CCB3)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.19	-		ng/L							U
Calibration Blank (0C16007-CCB4)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.10	-		ng/L							U
Calibration Blank (0C16007-CCB5)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.18	-		ng/L							U

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C16007 - F003257											
Calibration Blank (0C16007-CCB6)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.18	-		ng/L							U
Calibration Blank (0C16007-CCB7)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.19	-		ng/L							U
Calibration Blank (0C16007-CCB8)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.15	-		ng/L							U
Calibration Check (0C16007-CCV1)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.10	-		ng/L	5.0350		101	77-123			
Calibration Check (0C16007-CCV2)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.71	-		ng/L	5.0350		93.6	77-123			
Calibration Check (0C16007-CCV3)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.24	-		ng/L	5.0350		84.2	77-123			
Calibration Check (0C16007-CCV4)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.36	-		ng/L	5.0350		106	77-123			
Calibration Check (0C16007-CCV5)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.75	-		ng/L	5.0350		94.4	77-123			
Calibration Check (0C16007-CCV6)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.36	-		ng/L	5.0350		106	77-123			
Calibration Check (0C16007-CCV7)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.91	-		ng/L	5.0350		97.5	77-123			

eurofins | Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C16007 - F003257											
Calibration Check (0C16007-CCV8)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.48	-		ng/L	5.0350		109	77-123			
Instrument Blank (0C16007-IBL1)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C16007-IBL2)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C16007-IBL3)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Initial Cal Blank (0C16007-ICB1)					Prepared & Analyzed: 13-Mar-20						
Mercury	0.07	-		ng/L							
Initial Cal Check (0C16007-ICV1)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.38	-		ng/L	5.0350		107	79-121			
Batch F003254 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003254-BLK1)					Prepared & Analyzed: 13-Mar-20						
Mercury	0.10	0.08	0.50	ng/L							J
Blank (F003254-BLK2)					Prepared & Analyzed: 13-Mar-20						
Mercury	0.09	0.08	0.50	ng/L							J
Blank (F003254-BLK3)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U

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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.

Patrick Garcia-Strickland, Business Unit Manager

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Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F003254 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003254-BLK4)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
LCS (F003254-BS1)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.10	0.08	0.50	ng/L	5.0000		102	80-120			
LCS Dup (F003254-BSD1)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.14	0.08	0.50	ng/L	5.0000		103	80-120	0.633	24	
Matrix Spike (F003254-MS1)		**Source: 0C00039-02**			Prepared & Analyzed: 13-Mar-20						
Mercury	4.88	0.08	0.50	ng/L	5.0000	0.10	95.4	71-125			
Matrix Spike (F003254-MS2)		**Source: 0C00043-04**			Prepared & Analyzed: 13-Mar-20						
Mercury	5.12	0.08	0.50	ng/L	5.0000	ND	102	71-125			
Matrix Spike Dup (F003254-MSD1)		**Source: 0C00039-02**			Prepared & Analyzed: 13-Mar-20						
Mercury	5.19	0.08	0.50	ng/L	5.0000	0.10	102	71-125	6.32	24	
Matrix Spike Dup (F003254-MSD2)		**Source: 0C00043-04**			Prepared & Analyzed: 13-Mar-20						
Mercury	5.41	0.08	0.50	ng/L	5.0000	ND	108	71-125	5.50	24	

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

Notes and Definitions

Z-02	Filter blank shared with WO 0C00050 - ZKH 3/16/2020
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.
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.
O-04	This sample was analyzed outside of the recommended holding time.
J	The result is an estimated concentration.
FB	This blank is a filtration blank. Data is reported for informational purposes only.
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

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Patrick Garcia-Strickland, Business Unit Manager

23054

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

570-23054 Chain of Custody

CHAIN OF CUSTODY RECORD

DATE: 3/10/2020

PAGE: 1 OF 1

LABORATORY CLIENT: CWE Corp.

ADDRESS: 1561 E. Orangethorpe Avenue, Suite 240

CITY: Fullerton STATE: CA ZIP: 92831-5202

TEL: 714-526-7500x211 E-MAIL: JPereira@cwecorp.com

CLIENT PROJECT NAME / NUMBER: RH/SGR WQG 14117:23

P.O. NO.: 14117

PROJECT CONTACT: Jason Pereira

SAMPLER(S): (PRINT) VIK Bapna

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

(1) Only NO_2-N and NO_3-N (4) Only Endosulfan I reported
(2) Cd, Cu, Pb, Zn
(3) Only bis (2- Ethylhexyl) Phthalate reported

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	SM 2540 D TSS	EPA 300.0 Anions NO_2-N, NO_3-N	SM 2340C Total Hardness	SM4500-NH3 B/C Ammonia-N			EPA 200.8 Total Metals	EPA 200.8 Dissolved Metals	EPA 1631E Mercury	EPA 608 Pesticides & PCBs (2x1L)	EPA 625 SIM SVOCs							
	20200310RHSGR-RH3-ARC	3/10/2020	13:50	Surface Wt	7	3	4	1	X	X(1)	X	X			X(2)	X(2)	X									
	20200310RHSGR-RH3-DUP	3/10/2020	13:50	Surface Wt	6	3	3	0	X	X(1)	X	X			X(2)		X									
	20200310RHSGR-RH3-BLK	3/10/2020	13:50	Surface Wt	9	6	3	0	X	X(1)	X	X			X(2)		X	X(4)	X(3)							

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 03/10/2020	Time: 14:40
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Dannyle GLS	Date: 03/10/2020	Time: 15:52
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

3.5/2.6 Sc6

06/02/14 Revision

3/23/2020

Login Sample Receipt Checklist

Client: CWE Corporation

Job Number: 570-23054-1

Login Number: 23054
List Number: 1
Creator: Ramos, Maribel

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-23042-1
Client Project/Site: RH/SGR WQG 14117:24

For:
CWE Corporation
1561 E. Orangethorpe Avenue
Suite 240
Fullerton, California 92831-5202

Attn: Gerald Greene

Authorized for release by:
3/23/2020 9:01:27 AM

Lori Thompson, Project Manager I
(714)895-5494
lorithompson@eurofinsus.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23042-1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job ID: 570-23042-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-23042-1

Comments
No additional comments.

Receipt
The sample was received on 3/10/2020 3:52 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Lab Admin
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23042-1

Client Sample ID: 20200310RHSGR-SAN-DD

Lab Sample ID: 570-23042-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00185		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Lead	0.000588	J	0.00100	0.000190	mg/L	1		200.8	Dissolved
Hardness as calcium carbonate	140		20.0	9.89	mg/L	10		SM 2340C	Total/NA
Total Suspended Solids	8.67		3.33	2.76	mg/L	1		SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23042-1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: 20200310RHSGR-SAN-DD
Date Collected: 03/10/20 13:00
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23042-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00185		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 22:16	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23042-1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: 20200310RHSGR-SAN-DD
Date Collected: 03/10/20 13:00
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23042-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.000588	J	0.00100	0.000190	mg/L		03/19/20 20:00	03/20/20 12:59	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23042-1

General Chemistry

Client Sample ID: 20200310RHSGR-SAN-DD
Date Collected: 03/10/20 13:00
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23042-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	140		20.0	9.89	mg/L			03/16/20 16:03	10
Total Suspended Solids	8.67		3.33	2.76	mg/L			03/13/20 13:35	1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-58311/1-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 21:29	1

Lab Sample ID: LCS 570-58311/2-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.100	0.09894		mg/L		99	80 - 120

Lab Sample ID: LCSD 570-58311/3-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.100	0.1014		mg/L		101	80 - 120	2	20

Lab Sample ID: 570-23860-G-1-B MS
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		0.100	0.1029		mg/L		103	80 - 120

Lab Sample ID: 570-23860-G-1-C MSD
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		0.100	0.1041		mg/L		104	80 - 120	1	20

Lab Sample ID: MB 570-58477/1-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100	0.000190	mg/L		03/19/20 20:00	03/20/20 12:50	1

Lab Sample ID: LCS 570-58477/2-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.100	0.09984		mg/L		100	80 - 120

Lab Sample ID: LCSD 570-58477/3-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.100	0.09802		mg/L		98	80 - 120	2	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: 570-23042-1 MS
Matrix: Surface Water
Analysis Batch: 58604

Client Sample ID: 20200310RHSGR-SAN-DD
Prep Type: Dissolved
Prep Batch: 58477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.000588	J	0.100	0.1053		mg/L		105	80 - 120

Lab Sample ID: 570-23042-1 MSD
Matrix: Surface Water
Analysis Batch: 58604

Client Sample ID: 20200310RHSGR-SAN-DD
Prep Type: Dissolved
Prep Batch: 58477

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.000588	J	0.100	0.1051		mg/L		105	80 - 120	0	20

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 570-57613/1
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.00	0.989	mg/L			03/16/20 16:03	1

Lab Sample ID: LCS 570-57613/2
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	10.0	10.00		mg/L		100	85 - 115

Lab Sample ID: LCS 570-57613/3
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	100	102.0		mg/L		102	85 - 115

Lab Sample ID: 570-23040-C-2 DU
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hardness as calcium carbonate	160		140.0		mg/L		13	25

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-57127/1
Matrix: Water
Analysis Batch: 57127

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		1.00	0.829	mg/L			03/13/20 13:35	1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 570-57127/2
Matrix: Water
Analysis Batch: 57127

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			100	111.0		mg/L		111	85 - 115		

Lab Sample ID: LCSD 570-57127/3
Matrix: Water
Analysis Batch: 57127

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
Total Suspended Solids			100	112.0		mg/L		112	85 - 115	1	10

Lab Sample ID: 570-23051-E-1 DU
Matrix: Water
Analysis Batch: 57127

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	144			148.0		mg/L				3	10

QC Association Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23042-1

Metals

Prep Batch: 58311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23042-1	20200310RHSGR-SAN-DD	Total Recoverable	Surface Water	200.8	
MB 570-58311/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58311/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58311/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23860-G-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	
570-23860-G-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

Prep Batch: 58477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23042-1	20200310RHSGR-SAN-DD	Dissolved	Surface Water	200.8	
MB 570-58477/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58477/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58477/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23042-1 MS	20200310RHSGR-SAN-DD	Dissolved	Surface Water	200.8	
570-23042-1 MSD	20200310RHSGR-SAN-DD	Dissolved	Surface Water	200.8	

Analysis Batch: 58547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23042-1	20200310RHSGR-SAN-DD	Total Recoverable	Surface Water	200.8	58311
MB 570-58311/1-A	Method Blank	Total Recoverable	Water	200.8	58311
LCS 570-58311/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58311
LCSD 570-58311/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58311
570-23860-G-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	58311
570-23860-G-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	58311

Analysis Batch: 58604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23042-1	20200310RHSGR-SAN-DD	Dissolved	Surface Water	200.8	58477
MB 570-58477/1-A	Method Blank	Total Recoverable	Water	200.8	58477
LCS 570-58477/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58477
LCSD 570-58477/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58477
570-23042-1 MS	20200310RHSGR-SAN-DD	Dissolved	Surface Water	200.8	58477
570-23042-1 MSD	20200310RHSGR-SAN-DD	Dissolved	Surface Water	200.8	58477

General Chemistry

Analysis Batch: 57127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23042-1	20200310RHSGR-SAN-DD	Total/NA	Surface Water	SM 2540D	
MB 570-57127/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 570-57127/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 570-57127/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
570-23051-E-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 57613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23042-1	20200310RHSGR-SAN-DD	Total/NA	Surface Water	SM 2340C	
MB 570-57613/1	Method Blank	Total/NA	Water	SM 2340C	
LCS 570-57613/2	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 570-57613/3	Lab Control Sample	Total/NA	Water	SM 2340C	
570-23040-C-2 DU	Duplicate	Total/NA	Water	SM 2340C	

Lab Chronicle

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23042-1

Client Sample ID: 20200310RHSGR-SAN-DD

Date Collected: 03/10/20 13:00
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23042-1

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	200.8			50 mL	50 mL	58477	03/19/20 20:00	WL8G	ECL 1
Dissolved	Analysis	200.8		1			58604	03/20/20 12:59	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total Recoverable	Prep	200.8			50 mL	50 mL	58311	03/19/20 18:30	WL8G	ECL 1
Total Recoverable	Analysis	200.8		1			58547	03/19/20 22:16	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total/NA	Analysis	SM 2340C		10	50 mL	50 mL	57613	03/16/20 16:03	KZ4O	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	300 mL	1000 mL	57127	03/13/20 13:35	YR9U	ECL 1
	Instrument ID: NOEQUIP									

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23042-1

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

Method Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23042-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	ECL 1
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	ECL 1
200.8	Preparation, Total Recoverable Metals	EPA	ECL 1

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23042-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-23042-1	20200310RHSGR-SAN-DD	Surface Water	03/10/20 13:00	03/10/20 15:52	

eurofins

Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

570-23042 Chain of Custody

CHAIN OF CUSTODY RECORD

Loc: 570

23042

DATE: 3/10/2020

PAGE: 1 OF 1

LABORATORY CLIENT: CWE Corp.	CLIENT PROJECT NAME / NUMBER: RH/SGR WQG 14117:24
ADDRESS: 1561 E. Orangethorpe Avenue, Suite 240	P.O. NO.: 14117
CITY: Fullerton STATE: CA ZIP: 92831-5202	PROJECT CONTACT: Jason Pereira
TEL: 714-526-7500x211 E-MAIL: JPereira@cwecorp.com	SAMPLER(S): (PRINT) Chris Pondray

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

(1) Pb only

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	SM 2340C Total Hardness	SM 2540 D TSS	EPA 200.8 Total Metals	EPA 200.8 Dissolved Metals
	20200310RHSGR-SAN-DD	3/10/2020	1300	Surface W	4	1	3	1	X	X	X(1)	X(1)

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
[signature]	[signature] - CWE	3/10/2020	1400
[signature]	Dannyle ELL	03/10/2020	15:52

3.2/23 Sch

06/02/14 Revision

Login Sample Receipt Checklist

Client: CWE Corporation

Job Number: 570-23042-1

Login Number: 23042
List Number: 1
Creator: Soriano, Precy

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-23040-1
Client Project/Site: RH/SGR WQG 14117:24

For:
CWE Corporation
1561 E. Orangethorpe Avenue
Suite 240
Fullerton, California 92831-5202

Attn: Gerald Greene

Authorized for release by:
3/23/2020 10:59:41 AM

Lori Thompson, Project Manager I
(714)895-5494
lorithompson@eurofinsus.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Job ID: 570-23040-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-23040-1

Comments
No additional comments.

Receipt
The samples were received on 3/10/2020 3:52 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3º C.

GC/MS Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-56831. Preformed LCS and LCSD to QC requirements.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Lab Admin
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work
Method Subcontract Low Level Mercury: This method was subcontracted to Eurofins Frontier Global Sciences LLC. The subcontract laboratory certification is different from that of the facility issuing the final report.

Detection Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Client Sample ID: 20200310RHSGR-SAW-PR — Lab Sample ID: 570-23040-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00491		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Lead	0.000722	J	0.00100	0.000190	mg/L	1		200.8	Dissolved
Hardness as calcium carbonate	160		20.0	9.89	mg/L	10		SM 2340C	Total/NA
Total Suspended Solids	30.7		3.33	2.76	mg/L	1		SM 2540D	Total/NA

Client Sample ID: 20200310RHSGR-PRD — Lab Sample ID: 570-23040-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	0.88		0.50	0.22	mg/L	5		300.0	Total/NA
Copper	0.0215		0.00100	0.000610	mg/L	1		200.8	Total Recoverable
Lead	0.00553		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Zinc	0.104		0.00500	0.00347	mg/L	1		200.8	Total Recoverable
Copper	0.0160		0.00100	0.000610	mg/L	1		200.8	Dissolved
Lead	0.000963	J	0.00100	0.000190	mg/L	1		200.8	Dissolved
Zinc	0.0648		0.00500	0.00347	mg/L	1		200.8	Dissolved
Hardness as calcium carbonate	160		20.0	9.89	mg/L	10		SM 2340C	Total/NA
Total Suspended Solids	15.7		3.33	2.76	mg/L	1		SM 2540D	Total/NA
Ammonia (as N)	0.392		0.100	0.0665	mg/L	1		SM 4500 NH3 C	Total/NA

This Detection Summary does not include radiochemical test results.

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Client Sample ID: 20200310RHSGR-SAW-PR
Date Collected: 03/10/20 13:00
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		4.9	3.3	ug/L		03/12/20 13:15	03/16/20 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*98*		*35 - 123*	*03/12/20 13:15*	*03/16/20 16:04*	*1*
2-Fluorobiphenyl (Surr)	*67*		*33 - 99*	*03/12/20 13:15*	*03/16/20 16:04*	*1*
2-Fluorophenol (Surr)	*43*		*15 - 79*	*03/12/20 13:15*	*03/16/20 16:04*	*1*
Nitrobenzene-d5 (Surr)	*67*		*37 - 107*	*03/12/20 13:15*	*03/16/20 16:04*	*1*
Phenol-d6 (Surr)	*28*		*6 - 54*	*03/12/20 13:15*	*03/16/20 16:04*	*1*
p-Terphenyl-d14 (Surr)	*61*		*42 - 106*	*03/12/20 13:15*	*03/16/20 16:04*	*1*

Client Sample ID: 20200310RHSGR-PRD
Date Collected: 03/10/20 13:10
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-2
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		4.8	3.3	ug/L		03/12/20 13:15	03/16/20 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*109*		*35 - 123*	*03/12/20 13:15*	*03/16/20 16:22*	*1*
2-Fluorobiphenyl (Surr)	*75*		*33 - 99*	*03/12/20 13:15*	*03/16/20 16:22*	*1*
2-Fluorophenol (Surr)	*51*		*15 - 79*	*03/12/20 13:15*	*03/16/20 16:22*	*1*
Nitrobenzene-d5 (Surr)	*79*		*37 - 107*	*03/12/20 13:15*	*03/16/20 16:22*	*1*
Phenol-d6 (Surr)	*33*		*6 - 54*	*03/12/20 13:15*	*03/16/20 16:22*	*1*
p-Terphenyl-d14 (Surr)	*65*		*42 - 106*	*03/12/20 13:15*	*03/16/20 16:22*	*1*

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: 20200310RHSGR-PRD
Date Collected: 03/10/20 13:10
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-2
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.50	0.13	mg/L			03/11/20 22:59	5
Nitrate as N	**0.88**		0.50	0.22	mg/L			03/11/20 22:59	5

Client Sample Results

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: 20200310RHSGR-SAW-PR
Date Collected: 03/10/20 13:00
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.00491**		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 22:10	1

Client Sample ID: 20200310RHSGR-PRD
Date Collected: 03/10/20 13:10
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-2
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 18:30	03/19/20 22:13	1
Copper	**0.0215**		0.00100	0.000610	mg/L		03/19/20 18:30	03/19/20 22:13	1
Lead	**0.00553**		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 22:13	1
Zinc	**0.104**		0.00500	0.00347	mg/L		03/19/20 18:30	03/19/20 22:13	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: 20200310RHSGR-SAW-PR
Date Collected: 03/10/20 13:00
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**0.000722**	**J**	0.00100	0.000190	mg/L		03/19/20 20:00	03/20/20 13:10	1

Client Sample ID: 20200310RHSGR-PRD
Date Collected: 03/10/20 13:10
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-2
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 20:00	03/20/20 13:13	1
Copper	**0.0160**		0.00100	0.000610	mg/L		03/19/20 20:00	03/20/20 13:13	1
Lead	**0.000963**	**J**	0.00100	0.000190	mg/L		03/19/20 20:00	03/20/20 13:13	1
Zinc	**0.0648**		0.00500	0.00347	mg/L		03/19/20 20:00	03/20/20 13:13	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

General Chemistry

Client Sample ID: 20200310RHSGR-SAW-PR
Date Collected: 03/10/20 13:00
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	160		20.0	9.89	mg/L			03/16/20 16:03	10
Total Suspended Solids	30.7		3.33	2.76	mg/L			03/13/20 11:42	1

Client Sample ID: 20200310RHSGR-PRD
Date Collected: 03/10/20 13:10
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-2
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	160		20.0	9.89	mg/L			03/16/20 16:03	10
Total Suspended Solids	15.7		3.33	2.76	mg/L			03/13/20 11:42	1
Ammonia (as N)	0.392		0.100	0.0665	mg/L		03/20/20 10:00	03/20/20 23:23	1

Surrogate Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Surface Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(35-123)	(33-99)	(15-79)	(37-107)	(6-54)	(42-106)
570-23040-1	20200310RHSGR-SAW-PR	98	67	43	67	28	61
570-23040-2	20200310RHSGR-PRD	109	75	51	79	33	65

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL6	TPHd14
Lab Sample ID	Client Sample ID	(35-123)	(33-99)	(15-79)	(37-107)	(6-54)	(42-106)
LCS 570-56831/2-A	Lab Control Sample	100	74	56	80	35	72
LCSD 570-56831/3-A	Lab Control Sample Dup	108	77	55	81	35	76
MB 570-56831/1-A	Method Blank	90	74	55	77	34	72

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL6 = Phenol-d6 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 570-56831/1-A
Matrix: Water
Analysis Batch: 57460

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 56831

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		5.0	3.4	ug/L		03/12/20 13:15	03/16/20 13:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*90*		*35 - 123*	*03/12/20 13:15*	*03/16/20 13:54*	*1*
2-Fluorobiphenyl (Surr)	*74*		*33 - 99*	*03/12/20 13:15*	*03/16/20 13:54*	*1*
2-Fluorophenol (Surr)	*55*		*15 - 79*	*03/12/20 13:15*	*03/16/20 13:54*	*1*
Nitrobenzene-d5 (Surr)	*77*		*37 - 107*	*03/12/20 13:15*	*03/16/20 13:54*	*1*
Phenol-d6 (Surr)	*34*		*6 - 54*	*03/12/20 13:15*	*03/16/20 13:54*	*1*
p-Terphenyl-d14 (Surr)	*72*		*42 - 106*	*03/12/20 13:15*	*03/16/20 13:54*	*1*

Lab Sample ID: LCS 570-56831/2-A
Matrix: Water
Analysis Batch: 57460

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 56831

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	20.0	17.69		ug/L		88	17 - 168
Dimethyl phthalate	20.0	19.91		ug/L		100	1 - 120
Di-n-butyl phthalate	20.0	22.01		ug/L		110	1 - 120
Fluoranthene	20.0	20.51		ug/L		103	26 - 137
Fluorene	20.0	19.80		ug/L		99	59 - 121
Naphthalene	20.0	16.45		ug/L		82	21 - 133
Phenanthrene	20.0	19.20		ug/L		96	54 - 120
Phenol	20.0	7.775		ug/L		39	5 - 120
Pyrene	20.0	17.90		ug/L		89	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*100*		*35 - 123*
2-Fluorobiphenyl (Surr)	*74*		*33 - 99*
2-Fluorophenol (Surr)	*56*		*15 - 79*
Nitrobenzene-d5 (Surr)	*80*		*37 - 107*
Phenol-d6 (Surr)	*35*		*6 - 54*
p-Terphenyl-d14 (Surr)	*72*		*42 - 106*

Lab Sample ID: LCSD 570-56831/3-A
Matrix: Water
Analysis Batch: 57460

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56831

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chrysene	20.0	18.41		ug/L		92	17 - 168	4	87
Dimethyl phthalate	20.0	20.47		ug/L		102	1 - 120	3	183
Di-n-butyl phthalate	20.0	22.17		ug/L		111	1 - 120	1	47
Fluoranthene	20.0	20.87		ug/L		104	26 - 137	2	66
Fluorene	20.0	20.42		ug/L		102	59 - 121	3	38
Naphthalene	20.0	17.07		ug/L		85	21 - 133	4	65
Phenanthrene	20.0	19.96		ug/L		100	54 - 120	4	39
Phenol	20.0	7.765		ug/L		39	5 - 120	0	64
Pyrene	20.0	18.89		ug/L		94	52 - 120	5	49

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCSD 570-56831/3-A
Matrix: Water
Analysis Batch: 57460

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 56831

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*108*		*35 - 123*
2-Fluorobiphenyl (Surr)	*77*		*33 - 99*
2-Fluorophenol (Surr)	*55*		*15 - 79*
Nitrobenzene-d5 (Surr)	*81*		*37 - 107*
Phenol-d6 (Surr)	*35*		*6 - 54*
p-Terphenyl-d14 (Surr)	*76*		*42 - 106*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-56654/15
Matrix: Water
Analysis Batch: 56654

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.10	0.027	mg/L			03/11/20 22:02	1
Nitrate as N	ND		0.10	0.045	mg/L			03/11/20 22:02	1

Lab Sample ID: LCS 570-56654/16
Matrix: Water
Analysis Batch: 56654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.597		mg/L		104	90 - 110
Nitrate as N	5.00	5.129		mg/L		103	90 - 110

Lab Sample ID: LCSD 570-56654/17
Matrix: Water
Analysis Batch: 56654

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
Nitrite as N	2.50	2.569		mg/L		103	90 - 110	1	15
Nitrate as N	5.00	5.114		mg/L		102	90 - 110	0	15

Lab Sample ID: 570-23040-2 MS
Matrix: Surface Water
Analysis Batch: 56654

Client Sample ID: 20200310RHSGR-PRD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	ND		2.50	2.558		mg/L		102	80 - 120
Nitrate as N	0.88		5.00	5.623		mg/L		95	80 - 120

Lab Sample ID: 570-23040-2 MSD
Matrix: Surface Water
Analysis Batch: 56654

Client Sample ID: 20200310RHSGR-PRD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	ND		2.50	2.576		mg/L		103	80 - 120	1	20
Nitrate as N	0.88		5.00	5.672		mg/L		96	80 - 120	1	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-58311/1-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 18:30	03/19/20 21:29	1
Copper	ND		0.00100	0.000610	mg/L		03/19/20 18:30	03/19/20 21:29	1
Lead	ND		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 21:29	1
Zinc	ND		0.00500	0.00347	mg/L		03/19/20 18:30	03/19/20 21:29	1

Lab Sample ID: LCS 570-58311/2-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.100	0.1042		mg/L		104	80 - 120
Copper	0.100	0.09763		mg/L		98	80 - 120
Lead	0.100	0.09894		mg/L		99	80 - 120
Zinc	0.100	0.09964		mg/L		100	80 - 120

Lab Sample ID: LCSD 570-58311/3-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.100	0.1040		mg/L		104	80 - 120	0	20
Copper	0.100	0.09870		mg/L		99	80 - 120	1	20
Lead	0.100	0.1014		mg/L		101	80 - 120	2	20
Zinc	0.100	0.1021		mg/L		102	80 - 120	2	20

Lab Sample ID: 570-23860-G-1-B MS
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		0.100	0.1026		mg/L		103	80 - 120
Copper	ND		0.100	0.09009		mg/L		90	80 - 120
Lead	ND		0.100	0.1029		mg/L		103	80 - 120
Zinc	ND		0.100	0.09794		mg/L		98	80 - 120

Lab Sample ID: 570-23860-G-1-C MSD
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		0.100	0.1033		mg/L		103	80 - 120	1	20
Copper	ND		0.100	0.09087		mg/L		91	80 - 120	1	20
Lead	ND		0.100	0.1041		mg/L		104	80 - 120	1	20
Zinc	ND		0.100	0.09897		mg/L		99	80 - 120	1	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 570-58477/1-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 20:00	03/20/20 12:50	1
Copper	ND		0.00100	0.000610	mg/L		03/19/20 20:00	03/20/20 12:50	1
Lead	ND		0.00100	0.000190	mg/L		03/19/20 20:00	03/20/20 12:50	1
Zinc	ND		0.00500	0.00347	mg/L		03/19/20 20:00	03/20/20 12:50	1

Lab Sample ID: LCS 570-58477/2-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.100	0.1022		mg/L		102	80 - 120
Copper	0.100	0.09978		mg/L		100	80 - 120
Lead	0.100	0.09984		mg/L		100	80 - 120
Zinc	0.100	0.1049		mg/L		105	80 - 120

Lab Sample ID: LCSD 570-58477/3-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.100	0.1012		mg/L		101	80 - 120	1	20
Copper	0.100	0.09919		mg/L		99	80 - 120	1	20
Lead	0.100	0.09802		mg/L		98	80 - 120	2	20
Zinc	0.100	0.1038		mg/L		104	80 - 120	1	20

Lab Sample ID: 570-23042-C-1-B MS
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 58477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		0.100	0.1071		mg/L		107	80 - 120
Copper	0.0116		0.100	0.1094		mg/L		98	80 - 120
Lead	0.000588	J	0.100	0.1053		mg/L		105	80 - 120
Zinc	0.0147		0.100	0.1245		mg/L		110	80 - 120

Lab Sample ID: 570-23042-C-1-C MSD
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 58477

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		0.100	0.1052		mg/L		105	80 - 120	2	20
Copper	0.0116		0.100	0.1089		mg/L		97	80 - 120	0	20
Lead	0.000588	J	0.100	0.1051		mg/L		105	80 - 120	0	20
Zinc	0.0147		0.100	0.1206		mg/L		106	80 - 120	3	20

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 570-57613/1
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.00	0.989	mg/L			03/16/20 16:03	1

Lab Sample ID: LCS 570-57613/2
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	10.0	10.00		mg/L		100	85 - 115

Lab Sample ID: LCS 570-57613/3
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	100	102.0		mg/L		102	85 - 115

Lab Sample ID: 570-23040-2 DU
Matrix: Surface Water
Analysis Batch: 57613

Client Sample ID: 20200310RHSGR-PRD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hardness as calcium carbonate	160		140.0		mg/L		13	25

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-57085/1
Matrix: Water
Analysis Batch: 57085

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		1.00	0.829	mg/L			03/13/20 11:42	1

Lab Sample ID: LCS 570-57085/2
Matrix: Water
Analysis Batch: 57085

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	100	111.0		mg/L		111	85 - 115

Lab Sample ID: LCSD 570-57085/3
Matrix: Water
Analysis Batch: 57085

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
Total Suspended Solids	100	111.0		mg/L		111	85 - 115	0	10

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: 570-22995-A-2 DU
Matrix: Water
Analysis Batch: 57085

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	1160			1256		mg/L				8	10

Method: SM 4500 NH3 C - Ammonia

Lab Sample ID: MB 570-58738/1-A
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58738

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.100	0.0665	mg/L		03/20/20 10:00	03/20/20 23:23	1

Lab Sample ID: LCS 570-58738/2-A
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58738

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia (as N)			5.00	4.816		mg/L		96	80 - 120		

Lab Sample ID: LCSD 570-58738/3-A
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58738

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)			5.00	4.872		mg/L		97	80 - 120	1	20

Lab Sample ID: 570-23722-E-1-B DU
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 58738

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Ammonia (as N)	1.23			1.232		mg/L				0	25

QC Association Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

GC/MS Semi VOA

Prep Batch: 56831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-1	20200310RHSGR-SAW-PR	Total/NA	Surface Water	625	
570-23040-2	20200310RHSGR-PRD	Total/NA	Surface Water	625	
MB 570-56831/1-A	Method Blank	Total/NA	Water	625	
LCS 570-56831/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 570-56831/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 57460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-1	20200310RHSGR-SAW-PR	Total/NA	Surface Water	625.1 SIM	56831
570-23040-2	20200310RHSGR-PRD	Total/NA	Surface Water	625.1 SIM	56831
MB 570-56831/1-A	Method Blank	Total/NA	Water	625.1 SIM	56831
LCS 570-56831/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	56831
LCSD 570-56831/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	56831

HPLC/IC

Analysis Batch: 56654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-2	20200310RHSGR-PRD	Total/NA	Surface Water	300.0	
MB 570-56654/15	Method Blank	Total/NA	Water	300.0	
LCS 570-56654/16	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-56654/17	Lab Control Sample Dup	Total/NA	Water	300.0	
570-23040-2 MS	20200310RHSGR-PRD	Total/NA	Surface Water	300.0	
570-23040-2 MSD	20200310RHSGR-PRD	Total/NA	Surface Water	300.0	

Metals

Prep Batch: 58311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-1	20200310RHSGR-SAW-PR	Total Recoverable	Surface Water	200.8	
570-23040-2	20200310RHSGR-PRD	Total Recoverable	Surface Water	200.8	
MB 570-58311/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58311/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58311/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23860-G-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	
570-23860-G-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

Prep Batch: 58477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-1	20200310RHSGR-SAW-PR	Dissolved	Surface Water	200.8	
570-23040-2	20200310RHSGR-PRD	Dissolved	Surface Water	200.8	
MB 570-58477/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58477/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58477/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23042-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	
570-23042-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	

Analysis Batch: 58547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-1	20200310RHSGR-SAW-PR	Total Recoverable	Surface Water	200.8	58311
570-23040-2	20200310RHSGR-PRD	Total Recoverable	Surface Water	200.8	58311
MB 570-58311/1-A	Method Blank	Total Recoverable	Water	200.8	58311

Metals (Continued)

Analysis Batch: 58547 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-58311/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58311
LCSD 570-58311/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58311
570-23860-G-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	58311
570-23860-G-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	58311

Analysis Batch: 58604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-1	20200310RHSGR-SAW-PR	Dissolved	Surface Water	200.8	58477
570-23040-2	20200310RHSGR-PRD	Dissolved	Surface Water	200.8	58477
MB 570-58477/1-A	Method Blank	Total Recoverable	Water	200.8	58477
LCS 570-58477/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58477
LCSD 570-58477/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58477
570-23042-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	58477
570-23042-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	58477

General Chemistry

Analysis Batch: 57085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-1	20200310RHSGR-SAW-PR	Total/NA	Surface Water	SM 2540D	
570-23040-2	20200310RHSGR-PRD	Total/NA	Surface Water	SM 2540D	
MB 570-57085/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 570-57085/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 570-57085/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
570-22995-A-2 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 57613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-1	20200310RHSGR-SAW-PR	Total/NA	Surface Water	SM 2340C	
570-23040-2	20200310RHSGR-PRD	Total/NA	Surface Water	SM 2340C	
MB 570-57613/1	Method Blank	Total/NA	Water	SM 2340C	
LCS 570-57613/2	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 570-57613/3	Lab Control Sample	Total/NA	Water	SM 2340C	
570-23040-2 DU	20200310RHSGR-PRD	Total/NA	Surface Water	SM 2340C	

Prep Batch: 58738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-2	20200310RHSGR-PRD	Total/NA	Surface Water	SM 4500 NH3 B	
MB 570-58738/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 570-58738/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
LCSD 570-58738/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 B	
570-23722-E-1-B DU	Duplicate	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 58741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23040-2	20200310RHSGR-PRD	Total/NA	Surface Water	SM 4500 NH3 C	58738
MB 570-58738/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 C	58738
LCS 570-58738/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 C	58738
LCSD 570-58738/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 C	58738
570-23722-E-1-B DU	Duplicate	Total/NA	Water	SM 4500 NH3 C	58738

Lab Chronicle

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Client Sample ID: 20200310RHSGR-SAW-PR

Date Collected: 03/10/20 13:00
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-1

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			1020.5 mL	2 mL	56831	03/12/20 13:15	MYC2	ECL 1
Total/NA	Analysis	625.1 SIM		1			57460	03/16/20 16:04	N8CZ	ECL 1
	Instrument ID: GCMSJJJ									
Dissolved	Prep	200.8			50 mL	50 mL	58477	03/19/20 20:00	WL8G	ECL 1
Dissolved	Analysis	200.8		1			58604	03/20/20 13:10	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total Recoverable	Prep	200.8			50 mL	50 mL	58311	03/19/20 18:30	WL8G	ECL 1
Total Recoverable	Analysis	200.8		1			58547	03/19/20 22:10	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total/NA	Analysis	SM 2340C		10	50 mL	50 mL	57613	03/16/20 16:03	KZ4O	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	300 mL	1000 mL	57085	03/13/20 11:42	CV9U	ECL 1
	Instrument ID: NOEQUIP									

Client Sample ID: 20200310RHSGR-PRD

Date Collected: 03/10/20 13:10
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23040-2

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			1038.9 mL	2 mL	56831	03/12/20 13:15	MYC2	ECL 1
Total/NA	Analysis	625.1 SIM		1			57460	03/16/20 16:22	N8CZ	ECL 1
	Instrument ID: GCMSJJJ									
Total/NA	Analysis	300.0		5			56654	03/11/20 22:59	P6WT	ECL 1
	Instrument ID: IC9									
Dissolved	Prep	200.8			50 mL	50 mL	58477	03/19/20 20:00	WL8G	ECL 1
Dissolved	Analysis	200.8		1			58604	03/20/20 13:13	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total Recoverable	Prep	200.8			50 mL	50 mL	58311	03/19/20 18:30	WL8G	ECL 1
Total Recoverable	Analysis	200.8		1			58547	03/19/20 22:13	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total/NA	Analysis	SM 2340C		10	50 mL	50 mL	57613	03/16/20 16:03	KZ4O	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	300 mL	1000 mL	57085	03/13/20 11:42	CV9U	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Prep	SM 4500 NH3 B			500 mL	200 mL	58738	03/20/20 10:00	Y3IH	ECL 1
Total/NA	Analysis	SM 4500 NH3 C		1	200 mL	200 mL	58741	03/20/20 23:23	Y3IH	ECL 1
	Instrument ID: NOEQUIP									

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

FGS = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

Accreditation/Certification Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

Method Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Method	Method Description	Protocol	Laboratory
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	40CFR136A	ECL 1
300.0	Anions, Ion Chromatography	MCAWW	ECL 1
200.8	Metals (ICP/MS)	EPA	ECL 1
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	ECL 1
SM 4500 NH3 C	Ammonia	SM	ECL 1
1631	Low Level Mercury by 1631	EPA	FGS
200.8	Preparation, Total Recoverable Metals	EPA	ECL 1
625	Liquid-Liquid Extraction	40CFR136A	ECL 1
SM 4500 NH3 B	Distillation, Ammonia	SM	ECL 1

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
FGS = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

Sample Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:24

Job ID: 570-23040-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-23040-1	20200310RHSGR-SAW-PR	Surface Water	03/10/20 13:00	03/10/20 15:52	
570-23040-2	20200310RHSGR-PRD	Surface Water	03/10/20 13:10	03/10/20 15:52	

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

18 March 2020

Lori Thompson
Eurofins Calscience, LLC
7440 Lincoln Way
Garden Grove, CA 92841

RE: Low Level Hg - 2019

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,

Patrick Garcia-Strickland
Business Unit Manager

eurofins | Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
20200310RHSGR-PRD (570-23040-2)	0C00055-01	Water	10-Mar-20 13:10	12-Mar-20 09:30

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 12-Mar-20 09:30. The samples were received intact, on-ice within a sealed cooler at

Cooler	Temp C°
Default Cooler	-1.2

SAMPLE PREPARATION AND ANALYSIS

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

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: Cal Science Date & Time Received: 3/12/20 ~~1100~~ 930 HJB 3/12/20 Date Labeled: 3/12/20 Labeled By: MS

Matrix: Water Received By: HJB Label Verified By: MS 3.12.2020

# of Coolers Received: 1 Samples Arrived By: X 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:	Y	
Custody Seals are present and intact:	N	
Custody seals signed:	NA	

TID: 18113804 CF: -0.5 °C			Date/time: 3/12/20 1006		By: HJB
Cooler 1: -0.7 °C	w/ CF: -1.2 °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:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N	

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

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

0C00055

Page 7 of 43
3/23/2020

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Phone: 714-895-5494 Fax: 714-894-7501

0C00055

Chain of Custody Record

eurofins Calscience

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Thompson, Lori	Carrier Tracking No(s):	COC No: 570-25881.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lorithompson@eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Frontier Global Sciences LLC		Accreditations Required (See note):		Job #: 570-23040-1
Address: 5755 8th Street E, ,	Due Date Requested: 3/24/2020			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone:	PO #:			
Email:	WO #:			
Project Name: RH/SGR WQG 14117:24	Project #: 57000383			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Subcontract Low Level Mercury)/ 1631 Low Level Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
20200310RHSGR-PRD (570-23040-2)	3/10/20	13:10 Pacific		Water			X	1	10-day TAT, J-flags req'd, Std Excel EDD req'd

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	3/11/20 1700			3/12/2020 0930	CFGS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

3729 9786 2019

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

20200310RHSGR-PRD (570-23040-2)

0C00055-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**10.4**	0.83	5.00	ng/L	10	F003263	17-Mar-20	0C18005	17-Mar-20	EPA 1631E	

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C16007 - F003257											
Cal Standard (0C16007-CAL1)					Prepared & Analyzed: 13-Mar-20						
Mercury	0.50	-		ng/L	0.50000		101				
Cal Standard (0C16007-CAL2)					Prepared & Analyzed: 13-Mar-20						
Mercury	1.01	-		ng/L	1.0000		101				
Cal Standard (0C16007-CAL3)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.98	-		ng/L	5.0000		99.6				
Cal Standard (0C16007-CAL4)					Prepared & Analyzed: 13-Mar-20						
Mercury	19.78	-		ng/L	20.000		98.9				
Cal Standard (0C16007-CAL5)					Prepared & Analyzed: 13-Mar-20						
Mercury	39.84	-		ng/L	40.000		99.6				
Calibration Blank (0C16007-CCB1)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.14	-		ng/L							U
Calibration Blank (0C16007-CCB2)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.14	-		ng/L							U
Calibration Blank (0C16007-CCB3)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.19	-		ng/L							U
Calibration Blank (0C16007-CCB4)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.10	-		ng/L							U
Calibration Blank (0C16007-CCB5)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.18	-		ng/L							U

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C16007 - F003257											
Calibration Blank (0C16007-CCB6)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.18	-		ng/L							U
Calibration Blank (0C16007-CCB7)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.19	-		ng/L							U
Calibration Blank (0C16007-CCB8)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.15	-		ng/L							U
Calibration Check (0C16007-CCV1)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.10	-		ng/L	5.0350		101	77-123			
Calibration Check (0C16007-CCV2)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.71	-		ng/L	5.0350		93.6	77-123			
Calibration Check (0C16007-CCV3)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.24	-		ng/L	5.0350		84.2	77-123			
Calibration Check (0C16007-CCV4)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.36	-		ng/L	5.0350		106	77-123			
Calibration Check (0C16007-CCV5)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.75	-		ng/L	5.0350		94.4	77-123			
Calibration Check (0C16007-CCV6)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.36	-		ng/L	5.0350		106	77-123			
Calibration Check (0C16007-CCV7)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.91	-		ng/L	5.0350		97.5	77-123			

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C16007 - F003257											
Calibration Check (0C16007-CCV8)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.48	-		ng/L	5.0350		109	77-123			
Instrument Blank (0C16007-IBL1)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C16007-IBL2)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C16007-IBL3)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Initial Cal Blank (0C16007-ICB1)					Prepared & Analyzed: 13-Mar-20						
Mercury	0.07	-		ng/L							
Initial Cal Check (0C16007-ICV1)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.38	-		ng/L	5.0350		107	79-121			
Batch 0C18005 - F003259											
Cal Standard (0C18005-CAL1)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.49	-		ng/L	0.50000		97.9				
Cal Standard (0C18005-CAL2)					Prepared & Analyzed: 17-Mar-20						
Mercury	1.10	-		ng/L	1.0000		110				
Cal Standard (0C18005-CAL3)					Prepared & Analyzed: 17-Mar-20						
Mercury	4.57	-		ng/L	5.0000		91.4				

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C18005 - F003259											
Cal Standard (0C18005-CAL4)					Prepared & Analyzed: 17-Mar-20						
Mercury	20.27	-		ng/L	20.000		101				
Cal Standard (0C18005-CAL5)					Prepared & Analyzed: 17-Mar-20						
Mercury	39.60	-		ng/L	40.000		99.0				
Calibration Blank (0C18005-CCB1)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.09	-		ng/L							
Calibration Blank (0C18005-CCB2)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.10	-		ng/L							
Calibration Blank (0C18005-CCB3)					Prepared & Analyzed: 17-Mar-20						
Mercury	2.40	-		ng/L							QB-10
Calibration Blank (0C18005-CCB4)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.10	-		ng/L							
Calibration Blank (0C18005-CCB5)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.29	-		ng/L							
Calibration Blank (0C18005-CCB6)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.17	-		ng/L							
Calibration Blank (0C18005-CCB7)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.08	-		ng/L							
Calibration Blank (0C18005-CCB8)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.13	-		ng/L							

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C18005 - F003259											
Calibration Blank (0C18005-CCB9)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.14	-		ng/L							
Calibration Blank (0C18005-CCBA)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.12	-		ng/L							
Calibration Blank (0C18005-CCBB)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.15	-		ng/L							
Calibration Blank (0C18005-CCBC)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.12	-		ng/L							
Calibration Blank (0C18005-CCBD)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.11	-		ng/L							
Calibration Blank (0C18005-CCBE)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.29	-		ng/L							
Calibration Check (0C18005-CCV1)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.24	-		ng/L	5.0350		104	77-123			
Calibration Check (0C18005-CCV2)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.53	-		ng/L	5.0350		110	77-123			
Calibration Check (0C18005-CCV3)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.09	-		ng/L	5.0350		101	77-123			
Calibration Check (0C18005-CCV4)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.50	-		ng/L	5.0350		109	77-123			

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Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C18005 - F003259											
Calibration Check (0C18005-CCV5)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.55	-		ng/L	5.0350		110	77-123			
Calibration Check (0C18005-CCV6)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.35	-		ng/L	5.0350		106	77-123			
Calibration Check (0C18005-CCV7)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.39	-		ng/L	5.0350		107	77-123			
Calibration Check (0C18005-CCV8)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.32	-		ng/L	5.0350		106	77-123			
Calibration Check (0C18005-CCV9)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.70	-		ng/L	5.0350		113	77-123			
Calibration Check (0C18005-CCVA)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.74	-		ng/L	5.0350		114	77-123			
Calibration Check (0C18005-CCVB)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.52	-		ng/L	5.0350		110	77-123			
Calibration Check (0C18005-CCVC)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.17	-		ng/L	5.0350		103	77-123			
Calibration Check (0C18005-CCVD)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.01	-		ng/L	5.0350		99.6	77-123			
Calibration Check (0C18005-CCVE)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.24	-		ng/L	5.0350		104	77-123			

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C18005 - F003259											
Instrument Blank (0C18005-IBL1)					Prepared & Analyzed: 17-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C18005-IBL2)					Prepared & Analyzed: 17-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C18005-IBL3)					Prepared & Analyzed: 17-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Initial Cal Blank (0C18005-ICB1)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.15	-		ng/L							
Initial Cal Check (0C18005-ICV1)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.43	-		ng/L	5.0350		108	79-121			
Low Cal Check (0C18005-LCV1)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.45	-		ng/L	0.25000		181	0-200			
Low Cal Check (0C18005-LCV2)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.63	-		ng/L	0.50000		126	0-200			
Batch F003257 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003257-BLK1)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F003257-BLK2)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F003257 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003257-BLK3)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
LCS (F003257-BS1)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.93	0.08	0.50	ng/L	5.0000		98.6	80-120			
LCS Dup (F003257-BSD1)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.05	0.08	0.50	ng/L	5.0000		101	80-120	2.48	24	
Duplicate (F003257-DUP1)		**Source: 0C00061-21**			Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L		ND				24	U
Duplicate (F003257-DUP2)		**Source: 0C00061-22**			Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L		ND				24	U
Matrix Spike (F003257-MS1)		**Source: 0C00061-21**			Prepared & Analyzed: 13-Mar-20						
Mercury	3.62	0.08	0.50	ng/L	5.0000	ND	72.4	71-125			
Matrix Spike (F003257-MS2)		**Source: 0C00053-01**			Prepared & Analyzed: 13-Mar-20						
Mercury	63.16	0.83	5.00	ng/L	50.500	9.59	106	71-125			
Matrix Spike Dup (F003257-MSD1)		**Source: 0C00061-21**			Prepared & Analyzed: 13-Mar-20						
Mercury	3.36	0.08	0.50	ng/L	5.0000	ND	67.2	71-125	7.51	24	QM-07
Matrix Spike Dup (F003257-MSD2)		**Source: 0C00053-01**			Prepared & Analyzed: 13-Mar-20						
Mercury	61.85	0.83	5.00	ng/L	50.500	9.59	103	71-125	2.10	24	
Batch F003263 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003263-BLK1)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.17	0.08	0.50	ng/L							J

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F003263 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003263-BLK2)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.16	0.08	0.50	ng/L							J
Blank (F003263-BLK3)					Prepared & Analyzed: 17-Mar-20						
Mercury	0.14	0.08	0.50	ng/L							J
LCS (F003263-BS1)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.10	0.08	0.50	ng/L	5.0000		102	80-120			
LCS Dup (F003263-BSD1)					Prepared & Analyzed: 17-Mar-20						
Mercury	5.31	0.08	0.50	ng/L	5.0000		106	80-120	3.97	24	
Duplicate (F003263-DUP1)		**Source: 0C00061-24RE1**			Prepared & Analyzed: 17-Mar-20						
Mercury	0.11	0.08	0.50	ng/L		0.08				24	J
Duplicate (F003263-DUP2)		**Source: 0C00055-01RE1**			Prepared & Analyzed: 17-Mar-20						
Mercury	11.81	0.83	5.00	ng/L		10.45			12.3	24	
Matrix Spike (F003263-MS1)		**Source: 0C00061-23RE1**			Prepared & Analyzed: 17-Mar-20						
Mercury	3.91	0.08	0.50	ng/L	5.0000	0.09	76.2	71-125			
Matrix Spike (F003263-MS2)		**Source: 0C00046-14RE1**			Prepared & Analyzed: 17-Mar-20						
Mercury	5.15	0.08	0.50	ng/L	5.0000	ND	103	71-125			
Matrix Spike Dup (F003263-MSD1)		**Source: 0C00061-23RE1**			Prepared & Analyzed: 17-Mar-20						
Mercury	3.83	0.08	0.50	ng/L	5.0000	0.09	74.8	71-125	1.82	24	
Matrix Spike Dup (F003263-MSD2)		**Source: 0C00046-14RE1**			Prepared & Analyzed: 17-Mar-20						
Mercury	5.13	0.08	0.50	ng/L	5.0000	ND	103	71-125	0.234	24	

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	18-Mar-20 20:43

Notes and Definitions

Z-02	Filter blank shared with WO 0C00050 - ZKH 3/16/2020
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.
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.
QB-10	The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. Only report sample results greater than 10 times the contamination value (QB-01), or samples less than the MRL (QB-02).
QB-02	The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. However, the sample concentrations are less than the MRL.
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.
QA-01	Identified as multi-element FLOD: Spiking level 1.1 to 4.4 x FMDL; not intended to be applied to client sample results or appear in client reports.
O-04	This sample was analyzed outside of the recommended holding time.
J	The result is an estimated concentration.
FB	This blank is a filtration blank. Data is reported for informational purposes only.
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

23040

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

570-23040 Chain of Custody

CHAIN OF CUSTODY RECORD

DATE: 3/10/2020

PAGE: 1 OF 1

LABORATORY CLIENT: CWE Corp.

ADDRESS: 1561 E. Orangethorpe Avenue, Suite 240

CITY: Fullerton STATE: CA ZIP: 92831-5202

TEL: 714-526-7500x211 E-MAIL: JPereira@cwecorp.com

CLIENT PROJECT NAME / NUMBER: RH/SGR WQG 14117:24

P.O. NO.: 14117

PROJECT CONTACT: Jason Pereira

SAMPLER(S): (PRINT) STEVEN BELL
JULIANA HERMOSILLO

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

(1) Only NO_2-N and NO_3-N
(2) Pb only
(3) Cd, Cu, Pb, Zn
(4) Only Bis(2-ethylhexyl) phthalate reported

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered		SM 2540 D TSS	SM 2340C Total Hardness	EPA 300.0 Anions NO_2-N, NO_3-N, orthoPO_4		SM4500-NH3 B/C Ammonia-N		EPA 200.8 Total Metals	EPA 200.8 Dissolved Metals	EPA 625 SIM SVOCs	EPA 1631E Mercury							
	20200310RHSGR-SAW-PR	3/10/2020	1300	Surf Wtr	5	2	3	1		X	X					X(2)	X(2)	X(4)								
	20200310RHSGR-PRD	3/10/2020	1310	Surf Wtr	8	4	4	1		X	X	X(1)		X		X(3)	X(3)	X(4)	X							

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 03/10/2020	Time: 1420
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Danny E	Date: 03/10/2020	Time: 15:52
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

3.2/2.3 SCB

06/02/14 Revision

3/23/2020

Login Sample Receipt Checklist

Client: CWE Corporation

Job Number: 570-23040-1

Login Number: 23040
List Number: 1
Creator: Ramos, Maribel

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-23043-1
Client Project/Site: RH/SGR 14117:25

For:
CWE Corporation
1561 E. Orangethorpe Avenue
Suite 240
Fullerton, California 92831-5202

Attn: Gerald Greene

Authorized for release by:
3/23/2020 11:03:22 AM

Lori Thompson, Project Manager I
(714)895-5494
lorithompson@eurofinsus.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: CWE Corporation
Project/Site: RH/SGR 14117:25

Job ID: 570-23043-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
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.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job ID: 570-23043-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-23043-1

Comments
No additional comments.

Receipt
The sample was received on 3/10/2020 3:52 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Lab Admin
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work
Method Subcontract Low Level Mercury: This method was subcontracted to Eurofins Frontier Global Sciences LLC. The subcontract laboratory certification is different from that of the facility issuing the final report.

Detection Summary

Client: CWE Corporation
Project/Site: RH/SGR 14117:25

Job ID: 570-23043-1

Client Sample ID: 20200310RHSGR-ALA

Lab Sample ID: 570-23043-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrite as N	0.084	J	0.10	0.027	mg/L	1		300.0	Total/NA
Nitrate as N	0.91		0.10	0.045	mg/L	1		300.0	Total/NA
Copper	0.0249		0.00100	0.000610	mg/L	1		200.8	Total Recoverable
Lead	0.00494		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Zinc	0.180		0.00500	0.00347	mg/L	1		200.8	Total Recoverable
Copper	0.0183		0.00100	0.000610	mg/L	1		200.8	Dissolved
Lead	0.00103		0.00100	0.000190	mg/L	1		200.8	Dissolved
Zinc	0.123		0.00500	0.00347	mg/L	1		200.8	Dissolved
Hardness as calcium carbonate	80.0		20.0	9.89	mg/L	10		SM 2340C	Total/NA
Total Suspended Solids	36.5		5.00	4.14	mg/L	1		SM 2540D	Total/NA
Ammonia (as N)	0.840		0.100	0.0665	mg/L	1		SM 4500 NH3 C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: CWE Corporation
Project/Site: RH/SGR 14117:25

Job ID: 570-23043-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: 20200310RHSGR-ALA
Date Collected: 03/10/20 13:20
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23043-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.084	J	0.10	0.027	mg/L			03/10/20 21:38	1
Nitrate as N	0.91		0.10	0.045	mg/L			03/10/20 21:38	1

Client: CWE Corporation
Project/Site: RH/SGR 14117:25

Job ID: 570-23043-1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: 20200310RHSGR-ALA
Date Collected: 03/10/20 13:20
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23043-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 18:30	03/19/20 22:19	1
Copper	**0.0249**		0.00100	0.000610	mg/L		03/19/20 18:30	03/19/20 22:19	1
Lead	**0.00494**		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 22:19	1
Zinc	**0.180**		0.00500	0.00347	mg/L		03/19/20 18:30	03/19/20 22:19	1

Client: CWE Corporation
Project/Site: RH/SGR 14117:25

Job ID: 570-23043-1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: 20200310RHSGR-ALA
Date Collected: 03/10/20 13:20
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23043-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 20:00	03/20/20 13:08	1
Copper	**0.0183**		0.00100	0.000610	mg/L		03/19/20 20:00	03/20/20 13:08	1
Lead	**0.00103**		0.00100	0.000190	mg/L		03/19/20 20:00	03/20/20 13:08	1
Zinc	**0.123**		0.00500	0.00347	mg/L		03/19/20 20:00	03/20/20 13:08	1

Client: CWE Corporation
Project/Site: RH/SGR 14117:25

Job ID: 570-23043-1

General Chemistry

Client Sample ID: 20200310RHSGR-ALA
Date Collected: 03/10/20 13:20
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23043-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	80.0		20.0	9.89	mg/L			03/16/20 16:03	10
Total Suspended Solids	36.5		5.00	4.14	mg/L			03/13/20 13:35	1
Ammonia (as N)	0.840		0.100	0.0665	mg/L		03/20/20 10:00	03/20/20 23:23	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-56189/10
Matrix: Water
Analysis Batch: 56189

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.10	0.027	mg/L			03/10/20 16:42	1
Nitrate as N	ND		0.10	0.045	mg/L			03/10/20 16:42	1

Lab Sample ID: LCS 570-56189/11
Matrix: Water
Analysis Batch: 56189

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.463		mg/L		99	90 - 110
Nitrate as N	5.00	5.232		mg/L		105	90 - 110

Lab Sample ID: LCSD 570-56189/12
Matrix: Water
Analysis Batch: 56189

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
Nitrite as N	2.50	2.475		mg/L		99	90 - 110	0	15
Nitrate as N	5.00	5.035		mg/L		101	90 - 110	4	15

Lab Sample ID: 570-23043-1 MS
Matrix: Surface Water
Analysis Batch: 56189

Client Sample ID: 20200310RHSGR-ALA
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.084	J	2.50	2.686		mg/L		104	80 - 120
Nitrate as N	0.91		5.00	6.271		mg/L		107	80 - 120

Lab Sample ID: 570-23043-1 MSD
Matrix: Surface Water
Analysis Batch: 56189

Client Sample ID: 20200310RHSGR-ALA
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	0.084	J	2.50	2.684		mg/L		104	80 - 120	0	20
Nitrate as N	0.91		5.00	6.290		mg/L		108	80 - 120	0	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-58311/1-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 18:30	03/19/20 21:29	1
Copper	ND		0.00100	0.000610	mg/L		03/19/20 18:30	03/19/20 21:29	1
Lead	ND		0.00100	0.000190	mg/L		03/19/20 18:30	03/19/20 21:29	1
Zinc	ND		0.00500	0.00347	mg/L		03/19/20 18:30	03/19/20 21:29	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-58311/2-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.100	0.1042		mg/L		104	80 - 120
Copper	0.100	0.09763		mg/L		98	80 - 120
Lead	0.100	0.09894		mg/L		99	80 - 120
Zinc	0.100	0.09964		mg/L		100	80 - 120

Lab Sample ID: LCSD 570-58311/3-A
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.100	0.1040		mg/L		104	80 - 120	0	20
Copper	0.100	0.09870		mg/L		99	80 - 120	1	20
Lead	0.100	0.1014		mg/L		101	80 - 120	2	20
Zinc	0.100	0.1021		mg/L		102	80 - 120	2	20

Lab Sample ID: 570-23860-G-1-B MS
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		0.100	0.1026		mg/L		103	80 - 120
Copper	ND		0.100	0.09009		mg/L		90	80 - 120
Lead	ND		0.100	0.1029		mg/L		103	80 - 120
Zinc	ND		0.100	0.09794		mg/L		98	80 - 120

Lab Sample ID: 570-23860-G-1-C MSD
Matrix: Water
Analysis Batch: 58547

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 58311

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		0.100	0.1033		mg/L		103	80 - 120	1	20
Copper	ND		0.100	0.09087		mg/L		91	80 - 120	1	20
Lead	ND		0.100	0.1041		mg/L		104	80 - 120	1	20
Zinc	ND		0.100	0.09897		mg/L		99	80 - 120	1	20

Lab Sample ID: MB 570-58477/1-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.00100	0.000980	mg/L		03/19/20 20:00	03/20/20 12:50	1
Copper	ND		0.00100	0.000610	mg/L		03/19/20 20:00	03/20/20 12:50	1
Lead	ND		0.00100	0.000190	mg/L		03/19/20 20:00	03/20/20 12:50	1
Zinc	ND		0.00500	0.00347	mg/L		03/19/20 20:00	03/20/20 12:50	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-58477/2-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cadmium			0.100	0.1022		mg/L		102	80 - 120		
Copper			0.100	0.09978		mg/L		100	80 - 120		
Lead			0.100	0.09984		mg/L		100	80 - 120		
Zinc			0.100	0.1049		mg/L		105	80 - 120		

Lab Sample ID: LCSD 570-58477/3-A
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58477

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium			0.100	0.1012		mg/L		101	80 - 120	1	20
Copper			0.100	0.09919		mg/L		99	80 - 120	1	20
Lead			0.100	0.09802		mg/L		98	80 - 120	2	20
Zinc			0.100	0.1038		mg/L		104	80 - 120	1	20

Lab Sample ID: 570-23042-C-1-B MS
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 58477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cadmium	ND		0.100	0.1071		mg/L		107	80 - 120		
Copper	0.0116		0.100	0.1094		mg/L		98	80 - 120		
Lead	0.000588	J	0.100	0.1053		mg/L		105	80 - 120		
Zinc	0.0147		0.100	0.1245		mg/L		110	80 - 120		

Lab Sample ID: 570-23042-C-1-C MSD
Matrix: Water
Analysis Batch: 58604

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 58477

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		0.100	0.1052		mg/L		105	80 - 120	2	20
Copper	0.0116		0.100	0.1089		mg/L		97	80 - 120	0	20
Lead	0.000588	J	0.100	0.1051		mg/L		105	80 - 120	0	20
Zinc	0.0147		0.100	0.1206		mg/L		106	80 - 120	3	20

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 570-57613/1
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.00	0.989	mg/L			03/16/20 16:03	1

Lab Sample ID: LCS 570-57613/2
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate			10.0	10.00		mg/L		100	85 - 115		

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: LCS 570-57613/3
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate			100	102.0		mg/L		102	85 - 115		

Lab Sample ID: 570-23040-C-2 DU
Matrix: Water
Analysis Batch: 57613

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Hardness as calcium carbonate	160			140.0		mg/L				13	25

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-57127/1
Matrix: Water
Analysis Batch: 57127

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		1.00	0.829	mg/L			03/13/20 13:35	1

Lab Sample ID: LCS 570-57127/2
Matrix: Water
Analysis Batch: 57127

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			100	111.0		mg/L		111	85 - 115		

Lab Sample ID: LCSD 570-57127/3
Matrix: Water
Analysis Batch: 57127

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
Total Suspended Solids			100	112.0		mg/L		112	85 - 115	1	10

Lab Sample ID: 570-23051-E-1 DU
Matrix: Water
Analysis Batch: 57127

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	144			148.0		mg/L				3	10

Method: SM 4500 NH3 C - Ammonia

Lab Sample ID: MB 570-58738/1-A
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58738

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.100	0.0665	mg/L		03/20/20 10:00	03/20/20 23:23	1

Method: SM 4500 NH3 C - Ammonia (Continued)

Lab Sample ID: LCS 570-58738/2-A
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58738

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia (as N)			5.00	4.816		mg/L		96	80 - 120		

Lab Sample ID: LCSD 570-58738/3-A
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58738

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)			5.00	4.872		mg/L		97	80 - 120	1	20

Lab Sample ID: 570-23722-E-1-B DU
Matrix: Water
Analysis Batch: 58741

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 58738

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Ammonia (as N)	1.23			1.232		mg/L				0	25

HPLC/IC

Analysis Batch: 56189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23043-1	20200310RHSGR-ALA	Total/NA	Surface Water	300.0	
MB 570-56189/10	Method Blank	Total/NA	Water	300.0	
LCS 570-56189/11	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-56189/12	Lab Control Sample Dup	Total/NA	Water	300.0	
570-23043-1 MS	20200310RHSGR-ALA	Total/NA	Surface Water	300.0	
570-23043-1 MSD	20200310RHSGR-ALA	Total/NA	Surface Water	300.0	

Metals

Prep Batch: 58311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23043-1	20200310RHSGR-ALA	Total Recoverable	Surface Water	200.8	
MB 570-58311/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58311/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58311/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23860-G-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	
570-23860-G-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

Prep Batch: 58477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23043-1	20200310RHSGR-ALA	Dissolved	Surface Water	200.8	
MB 570-58477/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58477/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58477/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23042-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	
570-23042-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	

Analysis Batch: 58547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23043-1	20200310RHSGR-ALA	Total Recoverable	Surface Water	200.8	58311
MB 570-58311/1-A	Method Blank	Total Recoverable	Water	200.8	58311
LCS 570-58311/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58311
LCSD 570-58311/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58311
570-23860-G-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	58311
570-23860-G-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	58311

Analysis Batch: 58604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23043-1	20200310RHSGR-ALA	Dissolved	Surface Water	200.8	58477
MB 570-58477/1-A	Method Blank	Total Recoverable	Water	200.8	58477
LCS 570-58477/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58477
LCSD 570-58477/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58477
570-23042-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	58477
570-23042-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	58477

General Chemistry

Analysis Batch: 57127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23043-1	20200310RHSGR-ALA	Total/NA	Surface Water	SM 2540D	
MB 570-57127/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 570-57127/2	Lab Control Sample	Total/NA	Water	SM 2540D	

General Chemistry (Continued)

Analysis Batch: 57127 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-57127/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
570-23051-E-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 57613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23043-1	20200310RHSGR-ALA	Total/NA	Surface Water	SM 2340C	
MB 570-57613/1	Method Blank	Total/NA	Water	SM 2340C	
LCS 570-57613/2	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 570-57613/3	Lab Control Sample	Total/NA	Water	SM 2340C	
570-23040-C-2 DU	Duplicate	Total/NA	Water	SM 2340C	

Prep Batch: 58738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23043-1	20200310RHSGR-ALA	Total/NA	Surface Water	SM 4500 NH3 B	
MB 570-58738/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 570-58738/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
LCSD 570-58738/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 B	
570-23722-E-1-B DU	Duplicate	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 58741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23043-1	20200310RHSGR-ALA	Total/NA	Surface Water	SM 4500 NH3 C	58738
MB 570-58738/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 C	58738
LCS 570-58738/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 C	58738
LCSD 570-58738/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 C	58738
570-23722-E-1-B DU	Duplicate	Total/NA	Water	SM 4500 NH3 C	58738

Lab Chronicle

Client: CWE Corporation
Project/Site: RH/SGR 14117:25

Job ID: 570-23043-1

Client Sample ID: 20200310RHSGR-ALA

Date Collected: 03/10/20 13:20
Date Received: 03/10/20 15:52

Lab Sample ID: 570-23043-1

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			56189	03/10/20 21:38	P6WT	ECL 1
	Instrument ID: IC7									
Dissolved	Prep	200.8			50 mL	50 mL	58477	03/19/20 20:00	WL8G	ECL 1
Dissolved	Analysis	200.8		1			58604	03/20/20 13:08	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total Recoverable	Prep	200.8			50 mL	50 mL	58311	03/19/20 18:30	WL8G	ECL 1
Total Recoverable	Analysis	200.8		1			58547	03/19/20 22:19	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total/NA	Analysis	SM 2340C		10	50 mL	50 mL	57613	03/16/20 16:03	KZ4O	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	200 mL	1000 mL	57127	03/13/20 13:35	YR9U	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Prep	SM 4500 NH3 B			500 mL	200 mL	58738	03/20/20 10:00	Y3IH	ECL 1
Total/NA	Analysis	SM 4500 NH3 C		1	200 mL	200 mL	58741	03/20/20 23:23	Y3IH	ECL 1
	Instrument ID: NOEQUIP									

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

FGS = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

Accreditation/Certification Summary

Client: CWE Corporation
Project/Site: RH/SGR 14117:25

Job ID: 570-23043-1

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

Method Summary

Client: CWE Corporation
Project/Site: RH/SGR 14117:25

Job ID: 570-23043-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	ECL 1
200.8	Metals (ICP/MS)	EPA	ECL 1
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	ECL 1
SM 4500 NH3 C	Ammonia	SM	ECL 1
1631	Low Level Mercury by 1631	EPA	FGS
200.8	Preparation, Total Recoverable Metals	EPA	ECL 1
SM 4500 NH3 B	Distillation, Ammonia	SM	ECL 1

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

FGS = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

Sample Summary

Client: CWE Corporation
Project/Site: RH/SGR 14117:25

Job ID: 570-23043-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-23043-1	20200310RHSGR-ALA	Surface Water	03/10/20 13:20	03/10/20 15:52	

eurofins | Frontier Global Sciences

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

16 March 2020

Lori Thompson
Eurofins Calscience, LLC
7440 Lincoln Way
Garden Grove, CA 92841

RE: Low Level Hg - 2019

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,

Patrick Garcia-Strickland
Business Unit Manager

eurofins | Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
20200310RHSGR-ALA (570-23043-1)	0C00053-01	Water	10-Mar-20 13:20	12-Mar-20 09:30

eurofins | Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 12-Mar-20 09:30. The samples were received intact, on-ice within a sealed cooler at

Cooler	Temp C°
Default Cooler	-1.2

SAMPLE PREPARATION AND ANALYSIS

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

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.

eurofins | Frontier Global Sciences

Sample Receipt Checklist

Client: Cal Science Date & Time Received: 3/12/20 ~~1100~~ 930 HJB 3/12/20 Date Labeled: 3/12/20 Labeled By: JW

Matrix: Water Received By: HJB Label Verified By: VEL 3-12-2020

# of Coolers Received: 1 Samples Arrived By: X 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:	Y	
Custody Seals are present and intact:	N	
Custody seals signed:	NA	

TID: 18 113 9804	CF: -0.5 °C		Date/time: 3/12/20 1006		By: HJB		
Cooler 1: -0.7 °C	w/ CF: -1.2 °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:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	N	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N	

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

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

0C00053

Page 3 of 24

3/23/2020

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Phone: 714-895-5494 Fax: 714-894-7501

OL00053

Chain of Custody Record

eurofins Calscience

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Thompson, Lori	Carrier Tracking No(s):	COC No: 570-25881.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lorithompson@eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Frontier Global Sciences LLC		Accreditations Required (See note):		Job #: 570-23043-1
Address: 5755 8th Street E, ,	Due Date Requested: 3/24/2020			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone:	PO #:			
Email:	WO #:			
Project Name: RH/SGR 14117:25	Project #: 57000383			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Subcontract Low Level Mercury)/ 1631 Low Level Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
20200310RHSGR-ALA (570-23043-1)	3/10/20	13:20 Pacific		Water			X	1	10-Day TAT, J-flags req'd, Std Excel EDD req'd

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		3/11/20 1700			3/12/2020 0930	ECS
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

7779 9786 2019

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

20200310RHSGR-ALA (570-23043-1)

0C00053-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**9.59**	0.83	5.00	ng/L	10	F003257	13-Mar-20	0C16007	13-Mar-20	EPA 1631E	

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Tacoma, WA 98424
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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C16007 - F003257											
Cal Standard (0C16007-CAL1)					Prepared & Analyzed: 13-Mar-20						
Mercury	0.50	-		ng/L	0.50000		101				
Cal Standard (0C16007-CAL2)					Prepared & Analyzed: 13-Mar-20						
Mercury	1.01	-		ng/L	1.0000		101				
Cal Standard (0C16007-CAL3)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.98	-		ng/L	5.0000		99.6				
Cal Standard (0C16007-CAL4)					Prepared & Analyzed: 13-Mar-20						
Mercury	19.78	-		ng/L	20.000		98.9				
Cal Standard (0C16007-CAL5)					Prepared & Analyzed: 13-Mar-20						
Mercury	39.84	-		ng/L	40.000		99.6				
Calibration Blank (0C16007-CCB1)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.14	-		ng/L							U
Calibration Blank (0C16007-CCB2)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.14	-		ng/L							U
Calibration Blank (0C16007-CCB3)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.19	-		ng/L							U
Calibration Blank (0C16007-CCB4)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.10	-		ng/L							U
Calibration Blank (0C16007-CCB5)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.18	-		ng/L							U

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Tacoma, WA 98424
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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C16007 - F003257											
Calibration Blank (0C16007-CCB6)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.18	-		ng/L							U
Calibration Blank (0C16007-CCB7)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.19	-		ng/L							U
Calibration Blank (0C16007-CCB8)					Prepared & Analyzed: 13-Mar-20						
Mercury	-0.15	-		ng/L							U
Calibration Check (0C16007-CCV1)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.10	-		ng/L	5.0350		101	77-123			
Calibration Check (0C16007-CCV2)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.71	-		ng/L	5.0350		93.6	77-123			
Calibration Check (0C16007-CCV3)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.24	-		ng/L	5.0350		84.2	77-123			
Calibration Check (0C16007-CCV4)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.36	-		ng/L	5.0350		106	77-123			
Calibration Check (0C16007-CCV5)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.75	-		ng/L	5.0350		94.4	77-123			
Calibration Check (0C16007-CCV6)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.36	-		ng/L	5.0350		106	77-123			
Calibration Check (0C16007-CCV7)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.91	-		ng/L	5.0350		97.5	77-123			

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Tacoma, WA 98424
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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C16007 - F003257											
Calibration Check (0C16007-CCV8)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.48	-		ng/L	5.0350		109	77-123			
Instrument Blank (0C16007-IBL1)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C16007-IBL2)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C16007-IBL3)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Initial Cal Blank (0C16007-ICB1)					Prepared & Analyzed: 13-Mar-20						
Mercury	0.07	-		ng/L							
Initial Cal Check (0C16007-ICV1)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.38	-		ng/L	5.0350		107	79-121			
Batch F003257 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003257-BLK1)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F003257-BLK2)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F003257-BLK3)					Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U

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Tacoma, WA 98424
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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F003257 - EFGS SOP2796 EPA 1631 Oxidation											
LCS (F003257-BS1)					Prepared & Analyzed: 13-Mar-20						
Mercury	4.93	0.08	0.50	ng/L	5.0000		98.6	80-120			
LCS Dup (F003257-BSD1)					Prepared & Analyzed: 13-Mar-20						
Mercury	5.05	0.08	0.50	ng/L	5.0000		101	80-120	2.48	24	
Duplicate (F003257-DUP1)		**Source: 0C00061-21**			Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L		ND				24	U
Duplicate (F003257-DUP2)		**Source: 0C00061-22**			Prepared & Analyzed: 13-Mar-20						
Mercury	ND	0.08	0.50	ng/L		ND				24	U
Matrix Spike (F003257-MS1)		**Source: 0C00061-21**			Prepared & Analyzed: 13-Mar-20						
Mercury	3.62	0.08	0.50	ng/L	5.0000	ND	72.4	71-125			
Matrix Spike (F003257-MS2)		**Source: 0C00053-01**			Prepared & Analyzed: 13-Mar-20						
Mercury	63.16	0.83	5.00	ng/L	50.500	9.59	106	71-125			
Matrix Spike Dup (F003257-MSD1)		**Source: 0C00061-21**			Prepared & Analyzed: 13-Mar-20						
Mercury	3.36	0.08	0.50	ng/L	5.0000	ND	67.2	71-125	7.51	24	QM-07
Matrix Spike Dup (F003257-MSD2)		**Source: 0C00053-01**			Prepared & Analyzed: 13-Mar-20						
Mercury	61.85	0.83	5.00	ng/L	50.500	9.59	103	71-125	2.10	24	

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Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	16-Mar-20 17:06

Notes and Definitions

Z-02	Filter blank shared with WO 0C00050 - ZKH 3/16/2020
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.
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.
O-04	This sample was analyzed outside of the recommended holding time.
J	The result is an estimated concentration.
FB	This blank is a filtration blank. Data is reported for informational purposes only.
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.

Patrick Garcia-Strickland, Business Unit Manager

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

570-23043 Chain of Custody

CHAIN OF CUSTODY RECORD

DATE: 3/10/2020

PAGE: 1 OF 1 Loc: 570

23043

LABORATORY CLIENT: CWE Corp.	CLIENT PROJECT NAME / NUMBER: RH/SGR WQG 14117:25
ADDRESS: 1561 E. Orangethorpe Avenue, Suite 240	P.O. NO.: 14117
CITY: Fullerton STATE: CA ZIP: 92831-5202	PROJECT CONTACT: Jason Pereira
TEL: 714-526-7500x211 E-MAIL: JPereira@cwecorp.com	SAMPLER(S): (PRINT) Katie Harrel

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

(1) Cd, Cu, Pb, Zn

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	SM 2540 D TSS	EPA 300.0 Anions- NO_2-N, NO_3-N	SM 2340C Total Hardness	SM4500-NH3 B/C Ammonia-N	EPA 200.8 Total Metals	EPA 200.8 Dissolved Metals	EPA 1631E Mercury
	20200310RHSGR-ALA	3/10/2020	13:20	Surface Wt	7	3	4	1	X	X	X	X	X(1)	X(1)	X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 03/10/2020	Time: 14:30
Relinquished by: (Signature)	Received by: (Signature/Affiliation) Dannyle GLT	Date: 03/10/2020	Time: 15:32
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

3.2/2.3 SCG

06/02/14 Revision

Login Sample Receipt Checklist

Client: CWE Corporation

Job Number: 570-23043-1

Login Number: 23043
List Number: 1
Creator: Soriano, Precy

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number: 425612
Report Level: II
Report Date: 03/17/2020

Analytical Report *prepared for:*

Jason Pereira
CWE Corporation
1561 E. Orangethorpe Ave
Suite 240
Fullerton, CA 92831

Project: CWE_ECOLI - RHSGR, #14117

Authorized for release by:

Diane Galvan, Project Manager
714-771-9928
diane.galvan@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

ENTHALPY ANALYTICAL

Sample Summary

Jason Pereira
CWE Corporation
1561 E. Orangethorpe Ave
Suite 240
Fullerton, CA 92831

Lab Job #:	425612
Project No:	CWE_ECOLI
Location:	RHSGR, #14117
Date Received:	03/10/20

Sample ID	Lab ID	Collected	Matrix
20200310RHSGR-RH3-ARC	425612-001	03/10/20 13:50	Water
20200310RHSGR-RH3-DUP	425612-002	03/10/20 13:50	Water
20200310RHSGR-RH3-BLK	425612-003	03/10/20 13:50	Water
20200310RHSGR-SAN-DD	425612-004	03/10/20 13:00	Water
20200310RHSGR-SAW-PR	425612-005	03/10/20 13:00	Water
20200310RHSGR-PRD	425612-006	03/10/20 13:10	Water
20200310RHSGR-ALA	425612-007	03/10/20 13:20	Water

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868 Phone: (714) 771-6900 Fax: (714)771-9933	Lab No: 425612 Page: 1 of 2	Standard: ✓ 4 Day: 3 Day: 2 Day: 1 Day: Same Day:
Billing: Enthalpy - SoCal c/o Montrose Environmental Group 1 Park Plaza, Suite 1000, Irvine, CA 92614	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CWE	Name:	RHSGR
Report To:	Jason Pereira	Number:	14117
Email:	JPereira@cwecorp.com	P.O. #:	
Address:	1561 E. Orangethorpe Avenue Suite 240	Address:	
	Fullerton, CA 92831		
Phone:	1-(714)-526-7500 x211	Global ID:	
Fax:		Sampled By:	RR.

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	SM 9223-B-b (E. coli)*	Test Instructions / Comments
1	20200310RHSGR-RH3-ARC	03/10/2020	13:50	W	1 / 125 mL	1	✓	See Comments
2	20200310RHSGR-RH3-DUP	03/10/2020	13:50	W	1 / 125 mL	1	✓	See Comments
3	20200310RHSGR-RH3-BLK	03/10/2020	13:50	W	1 / 125 mL	1	✓	1 quantitray, no dilution
~~4~~	~~20200310RHSGR-LDW-BDW~~	~~03/10/2020~~		~~W~~	~~1 / 125 mL~~	~~1~~	✓	~~See Comments~~
5	20200310RHSGR-SAN-DD	03/10/2020	13:00	W	1 / 125 mL	1	✓	See Comments
6	20200310RHSGR-SAW-PR	03/10/2020	13:00	W	1 / 125 mL	1	✓	See Comments
7	20200310RHSGR-PRD	03/10/2020	13:10	W	1 / 125 mL	1	✓	See Comments
8	20200310RHSGR-ALA	03/10/2020	13:20	W	1/125 mL	1	✓	
9								
10								

*Second Quantitray with 1:1000 dilution for, six (6) analytical dilution levels, two (2) to two million (2,000,000) MPN/100ml.

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		VIK BAPNA	CWE	3/10/2020 1440
[1] Received By:		Ryan Kearns	CWE	3/10/2020 14:40
[2] Relinquished By:		Ryan Kearns	CWE - SCI	3/10/2020 15:15
[2] Received By:		ZAIN PADILLA	EA/EL	3/10/20 1515
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CWE Project: RHSGR

Date Received: 3/10/20 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 15.2 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.7 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)		✓	
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?	✓		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 3/10/20

ENTHALPY ANALYTICAL

Analysis Results for 425612

Jason Pereira
CWE Corporation
1561 E. Orangethorpe Ave
Suite 240
Fullerton, CA 92831

Lab Job #: 425612
Project No: CWE_ECOLI
Location: RHSGR, #14117
Date Received: 03/10/20

Sample ID: 20200310RHSGR-RH3-ARC **Lab ID: 425612-001** **Collected: 03/10/20 13:50**
Matrix: Water

425612-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**7,300**		MPN/100ml	1,000	1000	243070	03/10/20 17:25	03/11/20 13:40	CCO

Sample ID: 20200310RHSGR-RH3-DUP **Lab ID: 425612-002** **Collected: 03/10/20 13:50**
Matrix: Water

425612-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**8,500**		MPN/100ml	1,000	1000	243070	03/10/20 17:25	03/11/20 13:40	CCO

Sample ID: 20200310RHSGR-RH3-BLK **Lab ID: 425612-003** **Collected: 03/10/20 13:50**
Matrix: Water

425612-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	<1.0		MPN/100ml	1.0	1	243070	03/10/20 17:25	03/11/20 13:40	CCO

Sample ID: 20200310RHSGR-SAN-DD **Lab ID: 425612-004** **Collected: 03/10/20 13:00**
Matrix: Water

425612-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**1,000**		MPN/100ml	1,000	1000	243070	03/10/20 17:25	03/11/20 13:40	CCO

Sample ID: 20200310RHSGR-SAW-PR **Lab ID: 425612-005** **Collected: 03/10/20 13:00**
Matrix: Water

425612-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**1,000**		MPN/100ml	1,000	1000	243070	03/10/20 17:25	03/11/20 13:40	CCO

Results for any subcontracted analyses are not included in this section.

Analysis Results for 425612

Sample ID: 20200310RHSGR-PRD	Lab ID: 425612-006	Collected: 03/10/20 13:10
	Matrix: Water	

425612-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**2,000**		MPN/100ml	2,000	2000	243070	03/10/20 17:25	03/11/20 13:40	CCO

Sample ID: 20200310RHSGR-ALA	Lab ID: 425612-007	Collected: 03/10/20 13:20
	Matrix: Water	

425612-007 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**1,000**		MPN/100ml	1,000	1000	243070	03/10/20 17:25	03/11/20 13:40	CCO

< Value is less than indicated concentration

Results for any subcontracted analyses are not included in this section.

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-23378-1
Client Project/Site: RH/SGR WQG 14117:23

For:
CWE Corporation
1561 E. Orangethorpe Avenue
Suite 240
Fullerton, California 92831-5202

Attn: Gerald Greene

Authorized for release by:
3/26/2020 9:21:45 AM

Lori Thompson, Project Manager I
(714)895-5494
lorithompson@eurofinsus.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

Job ID: 570-23378-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-23378-1

Comments
No additional comments.

Receipt
The samples were received on 3/12/2020 8:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 608: A matrix spike/matrix spike duplicate (MS/MSD) was not prepared for preparation batch 570-57245, LCS/LCSD was performed to meet QC requirements.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Lab Admin
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work
Method Subcontract Low Level Mercury: This method was subcontracted to Eurofins Frontier Global Sciences LLC. The subcontract laboratory certification is different from that of the facility issuing the final report.

Detection Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

Client Sample ID: 20200312RHSGR-LDW-BDW — Lab Sample ID: 570-23378-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Endosulfan I	0.043		0.0038	0.0020	ug/L	1		608.3	Total/NA
Copper	0.0137		0.00100	0.000610	mg/L	1		200.8	Total Recoverable
Lead	0.00823		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Zinc	0.110		0.00500	0.00347	mg/L	1		200.8	Total Recoverable
Copper	0.00543		0.00100	0.000610	mg/L	1		200.8	Dissolved
Lead	0.000447	J	0.00100	0.000190	mg/L	1		200.8	Dissolved
Zinc	0.0333		0.00500	0.00347	mg/L	1		200.8	Dissolved
Hardness as calcium carbonate	20.0		2.00	0.989	mg/L	1		SM 2340C	Total/NA
Total Suspended Solids	51.0		3.33	2.76	mg/L	1		SM 2540D	Total/NA

Client Sample ID: 20200312RHSGR-LDW-DUP — Lab Sample ID: 570-23378-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0138		0.00100	0.000610	mg/L	1		200.8	Total Recoverable
Lead	0.00809		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Zinc	0.116		0.00500	0.00347	mg/L	1		200.8	Total Recoverable

Client Sample ID: 20200312RHSGR-LDW-BLK — Lab Sample ID: 570-23378-3

No Detections.

This Detection Summary does not include radiochemical test results.

Method: 608.3 - Organochlorine Pesticides in Water

Client Sample ID: 20200312RHSGR-LDW-BDW
Date Collected: 03/12/20 17:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23378-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	**0.043**		0.0038	0.0020	ug/L		03/13/20 20:44	03/16/20 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*50 - 135*	*03/13/20 20:44*	*03/16/20 15:28*	*1*
DCB Decachlorobiphenyl (Surr)	*74*		*50 - 135*	*03/13/20 20:44*	*03/16/20 15:28*	*1*

Client Sample ID: 20200312RHSGR-LDW-BLK
Date Collected: 03/12/20 17:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23378-3
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		0.0038	0.0020	ug/L		03/13/20 20:44	03/16/20 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*50 - 135*	*03/13/20 20:44*	*03/16/20 15:43*	*1*
DCB Decachlorobiphenyl (Surr)	*74*		*50 - 135*	*03/13/20 20:44*	*03/16/20 15:43*	*1*

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: 20200312RHSGR-LDW-BDW — **Lab Sample ID: 570-23378-1**
Date Collected: 03/12/20 17:00 — **Matrix: Surface Water**
Date Received: 03/12/20 20:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.0137		0.00100	0.000610	mg/L		03/23/20 20:00	03/24/20 23:39	1
Lead	0.00823		0.00100	0.000190	mg/L		03/23/20 20:00	03/24/20 23:39	1
Zinc	0.110		0.00500	0.00347	mg/L		03/23/20 20:00	03/24/20 23:39	1

Client Sample ID: 20200312RHSGR-LDW-DUP — **Lab Sample ID: 570-23378-2**
Date Collected: 03/12/20 17:00 — **Matrix: Surface Water**
Date Received: 03/12/20 20:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.0138		0.00100	0.000610	mg/L		03/23/20 20:00	03/24/20 23:42	1
Lead	0.00809		0.00100	0.000190	mg/L		03/23/20 20:00	03/24/20 23:42	1
Zinc	0.116		0.00500	0.00347	mg/L		03/23/20 20:00	03/24/20 23:42	1

Client Sample ID: 20200312RHSGR-LDW-BLK — **Lab Sample ID: 570-23378-3**
Date Collected: 03/12/20 17:00 — **Matrix: Surface Water**
Date Received: 03/12/20 20:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.00100	0.000610	mg/L		03/23/20 20:00	03/24/20 23:45	1
Lead	ND		0.00100	0.000190	mg/L		03/23/20 20:00	03/24/20 23:45	1
Zinc	ND		0.00500	0.00347	mg/L		03/23/20 20:00	03/24/20 23:45	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: 20200312RHSGR-LDW-BDW
Date Collected: 03/12/20 17:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23378-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.00543		0.00100	0.000610	mg/L		03/23/20 18:00	03/24/20 13:54	1
Lead	0.000447	J	0.00100	0.000190	mg/L		03/23/20 18:00	03/24/20 13:54	1
Zinc	0.0333		0.00500	0.00347	mg/L		03/23/20 18:00	03/24/20 13:54	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

General Chemistry

Client Sample ID: 20200312RHSGR-LDW-BDW
Date Collected: 03/12/20 17:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23378-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	20.0		2.00	0.989	mg/L			03/24/20 15:01	1
Total Suspended Solids	51.0		3.33	2.76	mg/L			03/14/20 14:52	1

Surrogate Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Surface Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(50-135)	(50-135)
570-23378-1	20200312RHSGR-LDW-BDW	73	74
570-23378-3	20200312RHSGR-LDW-BLK	87	74

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(50-135)	(50-135)
LCS 570-57245/2-A	Lab Control Sample	74	65
LCSD 570-57245/3-A	Lab Control Sample Dup	78	65
MB 570-57245/1-A	Method Blank	73	63

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-57245/1-A
Matrix: Water
Analysis Batch: 57452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57245

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		0.0040	0.0021	ug/L		03/13/20 20:44	03/16/20 14:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*50 - 135*	*03/13/20 20:44*	*03/16/20 14:32*	*1*
DCB Decachlorobiphenyl (Surr)	*63*		*50 - 135*	*03/13/20 20:44*	*03/16/20 14:32*	*1*

Lab Sample ID: LCS 570-57245/2-A
Matrix: Water
Analysis Batch: 57452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 57245

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endosulfan I	0.100	0.1082		ug/L		108	45 - 153

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*74*		*50 - 135*
DCB Decachlorobiphenyl (Surr)	*65*		*50 - 135*

Lab Sample ID: LCSD 570-57245/3-A
Matrix: Water
Analysis Batch: 57452

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 57245

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endosulfan I	0.100	0.1088		ug/L		109	45 - 153	1	28

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*78*		*50 - 135*
DCB Decachlorobiphenyl (Surr)	*65*		*50 - 135*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-59042/1-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 59042

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.00100	0.000610	mg/L		03/23/20 18:00	03/24/20 13:21	1
Lead	ND		0.00100	0.000190	mg/L		03/23/20 18:00	03/24/20 13:21	1
Zinc	ND		0.00500	0.00347	mg/L		03/23/20 18:00	03/24/20 13:21	1

Lab Sample ID: LCS 570-59042/2-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 59042

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.100	0.1008		mg/L		101	80 - 120
Lead	0.100	0.1032		mg/L		103	80 - 120
Zinc	0.100	0.1044		mg/L		104	80 - 120

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 570-59042/3-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 59042

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper			0.100	0.1011		mg/L		101	80 - 120	0	20
Lead			0.100	0.1007		mg/L		101	80 - 120	2	20
Zinc			0.100	0.1042		mg/L		104	80 - 120	0	20

Lab Sample ID: MB 570-59075/1-A
Matrix: Water
Analysis Batch: 59381

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 59075

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.00100	0.000610	mg/L		03/23/20 20:00	03/24/20 22:44	1
Lead	ND		0.00100	0.000190	mg/L		03/23/20 20:00	03/24/20 22:44	1
Zinc	ND		0.00500	0.00347	mg/L		03/23/20 20:00	03/24/20 22:44	1

Lab Sample ID: LCS 570-59075/2-A
Matrix: Water
Analysis Batch: 59381

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 59075

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Copper			0.100	0.1036		mg/L		104	80 - 120		
Lead			0.100	0.1016		mg/L		102	80 - 120		
Zinc			0.100	0.1068		mg/L		107	80 - 120		

Lab Sample ID: LCSD 570-59075/3-A
Matrix: Water
Analysis Batch: 59381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 59075

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper			0.100	0.1026		mg/L		103	80 - 120	1	20
Lead			0.100	0.1005		mg/L		100	80 - 120	1	20
Zinc			0.100	0.1054		mg/L		105	80 - 120	1	20

Lab Sample ID: 570-23350-D-10-B MS
Matrix: Water
Analysis Batch: 59381

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 59075

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Copper	0.00769		0.100	0.1100		mg/L		102	80 - 120		
Lead	0.00347		0.100	0.1053		mg/L		102	80 - 120		
Zinc	0.127		0.100	0.2392		mg/L		112	80 - 120		

Lab Sample ID: 570-23350-D-10-C MSD
Matrix: Water
Analysis Batch: 59381

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 59075

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.00769		0.100	0.1079		mg/L		100	80 - 120	2	20
Lead	0.00347		0.100	0.1045		mg/L		101	80 - 120	1	20
Zinc	0.127		0.100	0.2388		mg/L		112	80 - 120	0	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 570-23373-C-1-B MS
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 59042

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.00414		0.100	0.1066		mg/L		102	80 - 120
Lead	0.000296	J	0.100	0.1034		mg/L		103	80 - 120
Zinc	0.0249		0.100	0.1414		mg/L		117	80 - 120

Lab Sample ID: 570-23373-C-1-C MSD
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 59042

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.00414		0.100	0.1082		mg/L		104	80 - 120	1	20
Lead	0.000296	J	0.100	0.1043		mg/L		104	80 - 120	1	20
Zinc	0.0249		0.100	0.1388		mg/L		114	80 - 120	2	20

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 570-59291/1
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.00	0.989	mg/L			03/24/20 15:01	1

Lab Sample ID: LCS 570-59291/2
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	10.0	10.00		mg/L		100	85 - 115

Lab Sample ID: LCS 570-59291/3
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	100	100.0		mg/L		100	85 - 115

Lab Sample ID: 570-23380-D-1 DU
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hardness as calcium carbonate	12.0		14.00		mg/L		15	25

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-57343/1
Matrix: Water
Analysis Batch: 57343

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		1.00	0.829	mg/L			03/14/20 14:52	1

Lab Sample ID: LCS 570-57343/2
Matrix: Water
Analysis Batch: 57343

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			100	107.0		mg/L		107	85 - 115		

Lab Sample ID: LCSD 570-57343/3
Matrix: Water
Analysis Batch: 57343

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
Total Suspended Solids			100	108.0		mg/L		108	85 - 115	1	10

Lab Sample ID: 570-23493-E-1 DU
Matrix: Water
Analysis Batch: 57343

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	1140			1156		mg/L				1	10

QC Association Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

GC Semi VOA

Prep Batch: 57245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23378-1	20200312RHSGR-LDW-BDW	Total/NA	Surface Water	608	
570-23378-3	20200312RHSGR-LDW-BLK	Total/NA	Surface Water	608	
MB 570-57245/1-A	Method Blank	Total/NA	Water	608	
LCS 570-57245/2-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-57245/3-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 57452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23378-1	20200312RHSGR-LDW-BDW	Total/NA	Surface Water	608.3	57245
570-23378-3	20200312RHSGR-LDW-BLK	Total/NA	Surface Water	608.3	57245
MB 570-57245/1-A	Method Blank	Total/NA	Water	608.3	57245
LCS 570-57245/2-A	Lab Control Sample	Total/NA	Water	608.3	57245
LCSD 570-57245/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	57245

Metals

Prep Batch: 59042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23378-1	20200312RHSGR-LDW-BDW	Dissolved	Surface Water	200.8	
MB 570-59042/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-59042/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-59042/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23373-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	
570-23373-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	

Prep Batch: 59075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23378-1	20200312RHSGR-LDW-BDW	Total Recoverable	Surface Water	200.8	
570-23378-2	20200312RHSGR-LDW-DUP	Total Recoverable	Surface Water	200.8	
570-23378-3	20200312RHSGR-LDW-BLK	Total Recoverable	Surface Water	200.8	
MB 570-59075/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-59075/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-59075/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23350-D-10-B MS	Matrix Spike	Total Recoverable	Water	200.8	
570-23350-D-10-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

Analysis Batch: 59299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23378-1	20200312RHSGR-LDW-BDW	Dissolved	Surface Water	200.8	59042
MB 570-59042/1-A	Method Blank	Total Recoverable	Water	200.8	59042
LCS 570-59042/2-A	Lab Control Sample	Total Recoverable	Water	200.8	59042
LCSD 570-59042/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	59042
570-23373-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	59042
570-23373-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	59042

Analysis Batch: 59381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23378-1	20200312RHSGR-LDW-BDW	Total Recoverable	Surface Water	200.8	59075
570-23378-2	20200312RHSGR-LDW-DUP	Total Recoverable	Surface Water	200.8	59075
570-23378-3	20200312RHSGR-LDW-BLK	Total Recoverable	Surface Water	200.8	59075
MB 570-59075/1-A	Method Blank	Total Recoverable	Water	200.8	59075

Metals (Continued)

Analysis Batch: 59381 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 570-59075/2-A	Lab Control Sample	Total Recoverable	Water	200.8	59075
LCSD 570-59075/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	59075
570-23350-D-10-B MS	Matrix Spike	Total Recoverable	Water	200.8	59075
570-23350-D-10-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	59075

General Chemistry

Analysis Batch: 57343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23378-1	20200312RHSGR-LDW-BDW	Total/NA	Surface Water	SM 2540D	
MB 570-57343/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 570-57343/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 570-57343/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
570-23493-E-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 59291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23378-1	20200312RHSGR-LDW-BDW	Total/NA	Surface Water	SM 2340C	
MB 570-59291/1	Method Blank	Total/NA	Water	SM 2340C	
LCS 570-59291/2	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 570-59291/3	Lab Control Sample	Total/NA	Water	SM 2340C	
570-23380-D-1 DU	Duplicate	Total/NA	Water	SM 2340C	

Lab Chronicle

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

Client Sample ID: 20200312RHSGR-LDW-BDW

Lab Sample ID: 570-23378-1

Date Collected: 03/12/20 17:00
Date Received: 03/12/20 20:45

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	608			1051.9 mL	2 mL	57245	03/13/20 20:44	UM1W	ECL 1
Total/NA	Analysis	608.3		1			57452	03/16/20 15:28	UHHN	ECL 1
	Instrument ID: GC51									
Dissolved	Prep	200.8			50 mL	50 mL	59042	03/23/20 18:00	X7RL	ECL 1
Dissolved	Analysis	200.8		1			59299	03/24/20 13:54	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total Recoverable	Prep	200.8			50 mL	50 mL	59075	03/23/20 20:00	X7RL	ECL 1
Total Recoverable	Analysis	200.8		1			59381	03/24/20 23:39	UFLE	ECL 1
	Instrument ID: ICPMS05									
Total/NA	Analysis	SM 2340C		1	50 mL	50 mL	59291	03/24/20 15:01	KZ4O	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	300 mL	1000 mL	57343	03/14/20 14:52	CV9U	ECL 1
	Instrument ID: NOEQUIP									

Client Sample ID: 20200312RHSGR-LDW-DUP

Lab Sample ID: 570-23378-2

Date Collected: 03/12/20 17:00
Date Received: 03/12/20 20:45

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.8			50 mL	50 mL	59075	03/23/20 20:00	X7RL	ECL 1
Total Recoverable	Analysis	200.8		1			59381	03/24/20 23:42	UFLE	ECL 1
	Instrument ID: ICPMS05									

Client Sample ID: 20200312RHSGR-LDW-BLK

Lab Sample ID: 570-23378-3

Date Collected: 03/12/20 17:00
Date Received: 03/12/20 20:45

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	608			1046.2 mL	2 mL	57245	03/13/20 20:44	UM1W	ECL 1
Total/NA	Analysis	608.3		1			57452	03/16/20 15:43	UHHN	ECL 1
	Instrument ID: GC51									
Total Recoverable	Prep	200.8			50 mL	50 mL	59075	03/23/20 20:00	X7RL	ECL 1
Total Recoverable	Analysis	200.8		1			59381	03/24/20 23:45	UFLE	ECL 1
	Instrument ID: ICPMS05									

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

FGS = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

Accreditation/Certification Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

Method Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

Method	Method Description	Protocol	Laboratory
608.3	Organochlorine Pesticides in Water	40CFR136A	ECL 1
200.8	Metals (ICP/MS)	EPA	ECL 1
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	ECL 1
1631	Low Level Mercury by 1631	EPA	FGS
200.8	Preparation, Total Recoverable Metals	EPA	ECL 1
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	ECL 1

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
FGS = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

Sample Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:23

Job ID: 570-23378-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-23378-1	20200312RHSGR-LDW-BDW	Surface Water	03/12/20 17:00	03/12/20 20:45	
570-23378-2	20200312RHSGR-LDW-DUP	Surface Water	03/12/20 17:00	03/12/20 20:45	
570-23378-3	20200312RHSGR-LDW-BLK	Surface Water	03/12/20 17:00	03/12/20 20:45	

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

20 March 2020

Lori Thompson
Eurofins Calscience, LLC
7440 Lincoln Way
Garden Grove, CA 92841

RE: Low Level Hg - 2019

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,

Patrick Garcia-Strickland
Business Unit Manager

eurofins | Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
20200312RHSGR-LDW-BDW (570-23378-1)	0C00079-01	Water	12-Mar-20 17:00	17-Mar-20 09:45
20200312RHSGR-LDW-DUP (570-23378-2)	0C00079-02	Water	12-Mar-20 17:00	17-Mar-20 09:45
20200312RHSGR-LDW-BLK (570-23378-3)	0C00079-03	Water	12-Mar-20 17:00	17-Mar-20 09:45

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 17-Mar-20 09:45. The samples were received intact, on-ice within a sealed cooler at

Cooler	Temp C°
Default Cooler	0.0

SAMPLE PREPARATION AND ANALYSIS

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

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: CalScience Date & Time Received: 3/17/2020 0945 Date Labeled: 3/17/2020 Labeled By: MS

Matrix: Water Received By: MS Label Verified By: [signature] 3/17/2020

# of Coolers Received: 1 Samples Arrived By: X 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:	Y	
Custody Seals are present and intact:	N	
Custody seals signed:	NA	

TID: 18139780 CF: -0.4 °C Date/time: 3/17/2020 1000 By: MS

Cooler 1:	0.4 °C	w/ CF:	0.0 °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:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N	

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

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

0C00079

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Phone: 714-895-5494 Fax: 714-894-7501

DC00079

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Thompson, Lori	Carrier Tracking No(s):	COC No: 570-26665.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lorithompson@eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Frontier Global Sciences LLC		Accreditations Required (See note):		Job #: 570-23378-1
Address: 5755 8th Street E, ,	Due Date Requested: 3/26/2020			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone:	PO #:			
Email:	WO #:			
Project Name: RH/SGR WQG 14117:23	Project #: 57000383			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Subcontract Low Level Mercury)/ 1631 Low Level Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
20200312RHSGR-LDW-BDW (570-23378-1)	3/12/20	17:00 Pacific		Water			X	1	10-Day TAT, J-flags req'd, Std Excel EDD req'd
20200312RHSGR-LDW-DUP (570-23378-2)	3/12/20	17:00 Pacific		Water			X	1	10-Day TAT, J-flags req'd, Std Excel EDD req'd
20200312RHSGR-LDW-BLK (570-23378-3)	3/12/20	17:00 Pacific		Water			X	1	10-Day TAT, J-flags req'd, Std Excel EDD req'd

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	3/16/20 1611			3/17/2020 0945	EFGS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

7700 3411 1747

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

20200312RHSGR-LDW-BDW (570-23378-1)

0C00079-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**16.2**	0.83	5.00	ng/L	10	F003266	18-Mar-20	0C18009	18-Mar-20	EPA 1631E	

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

20200312RHSGR-LDW-DUP (570-23378-2)

0C00079-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**17.2**	0.83	5.00	ng/L	10	F003266	18-Mar-20	0C18009	18-Mar-20	EPA 1631E	

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

20200312RHSGR-LDW-BLK (570-23378-3)

0C00079-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**1.72**	0.08	0.50	ng/L	1	F003266	18-Mar-20	0C18009	18-Mar-20	EPA 1631E	

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C18009 - F003266											
Cal Standard (0C18009-CAL1)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.52	-		ng/L	0.50000		103				
Cal Standard (0C18009-CAL2)					Prepared & Analyzed: 18-Mar-20						
Mercury	1.00	-		ng/L	1.0000		100				
Cal Standard (0C18009-CAL3)					Prepared & Analyzed: 18-Mar-20						
Mercury	4.80	-		ng/L	5.0000		96.0				
Cal Standard (0C18009-CAL4)					Prepared & Analyzed: 18-Mar-20						
Mercury	19.89	-		ng/L	20.000		99.5				
Cal Standard (0C18009-CAL5)					Prepared & Analyzed: 18-Mar-20						
Mercury	40.40	-		ng/L	40.000		101				
Calibration Blank (0C18009-CCB1)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.13	-		ng/L							
Calibration Blank (0C18009-CCB2)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.17	-		ng/L							
Calibration Blank (0C18009-CCB3)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.17	-		ng/L							
Calibration Blank (0C18009-CCB4)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.14	-		ng/L							
Calibration Check (0C18009-CCV1)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.20	-		ng/L	5.0350		103	77-123			

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Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C18009 - F003266											
Calibration Check (0C18009-CCV2)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.27	-		ng/L	5.0350		105	77-123			
Calibration Check (0C18009-CCV3)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.35	-		ng/L	5.0350		106	77-123			
Calibration Check (0C18009-CCV4)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.23	-		ng/L	5.0350		104	77-123			
Instrument Blank (0C18009-IBL1)					Prepared & Analyzed: 18-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C18009-IBL2)					Prepared & Analyzed: 18-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C18009-IBL3)					Prepared & Analyzed: 18-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Initial Cal Blank (0C18009-ICB1)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.08	-		ng/L							
Initial Cal Check (0C18009-ICV1)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.16	-		ng/L	5.0350		102	79-121			
Batch F003266 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003266-BLK1)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.17	0.08	0.50	ng/L							J

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Patrick Garcia-Strickland, Business Unit Manager

eurofins | Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F003266 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003266-BLK2)					Prepared & Analyzed: 18-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F003266-BLK3)					Prepared & Analyzed: 18-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
LCS (F003266-BS1)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.10	0.08	0.50	ng/L	5.0000		102	80-120			
LCS Dup (F003266-BSD1)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.42	0.08	0.50	ng/L	5.0000		108	80-120	6.01	24	
Duplicate (F003266-DUP1)		**Source: 0C00081-02**			Prepared & Analyzed: 18-Mar-20						
Mercury	29.56	0.83	5.00	ng/L		29.82			0.869	24	
Duplicate (F003266-DUP2)		**Source: 0C00058-02RE1**			Prepared & Analyzed: 18-Mar-20						
Mercury	21.16	0.08	0.50	ng/L		20.49			3.20	24	
Matrix Spike (F003266-MS1)		**Source: 0C00079-03**			Prepared & Analyzed: 18-Mar-20						
Mercury	6.42	0.08	0.50	ng/L	5.0000	1.72	94.0	71-125			
Matrix Spike (F003266-MS2)		**Source: 0C00080-03**			Prepared & Analyzed: 18-Mar-20						
Mercury	5.35	0.08	0.50	ng/L	5.0000	0.30	101	71-125			
Matrix Spike Dup (F003266-MSD1)		**Source: 0C00079-03**			Prepared & Analyzed: 18-Mar-20						
Mercury	6.44	0.08	0.50	ng/L	5.0000	1.72	94.4	71-125	0.282	24	
Matrix Spike Dup (F003266-MSD2)		**Source: 0C00080-03**			Prepared & Analyzed: 18-Mar-20						
Mercury	5.56	0.08	0.50	ng/L	5.0000	0.30	105	71-125	3.75	24	

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Patrick Garcia-Strickland, Business Unit Manager

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5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

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.
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

23378

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

570-23378 Chain of Custody

CHAIN OF CUSTODY RECORD

DATE: 3/12/2020

PAGE: 1 OF 1

LABORATORY CLIENT: CWE Corp.	CLIENT PROJECT NAME / NUMBER: RH/SGR WQG 14117:23
ADDRESS: 1561 E. Orangethorpe Avenue, Suite 240	P.O. NO.: 14117
CITY: Fullerton STATE: CA ZIP: 92831-5202	PROJECT CONTACT: Jason Pereira
TEL: 714-526-7500x211 E-MAIL: JPereira@cwecorp.com	SAMPLER(S): (PRINT) Charlotte Knight

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

(1) Cu, Pb, Zn

(2) Only Endosulfan I reported

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	SM 2540 D TSS	EPA 200.8 Total Metals	SM 2340C Total Hardness	EPA 200.8 Dissolved Metals	EPA 1631E Mercury	EPA 608 Pesticides & PCBs (2x1L)
	20200312RHSGR-LDW-BDW	3/12/2020	17:00	Surface Wt	7	4	3	1	X	X(1)	X	X(1)	X	X(2)
	20200312RHSGR-LDW-DUP	3/12/2020	1700	Surface Wt	2	1	1			X(1)			X	
	20200312RHSGR-LDW-BLK	3/12/2020	1700	Surface Wt	3	2	1			X(1)			X	X(2)

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 3/12/2020	Time: 17:50
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 3/12/20	Time: 2045
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2.8/1.7 500

06/02/14 Revision

3/26/2020

Login Sample Receipt Checklist

Client: CWE Corporation

Job Number: 570-23378-1

Login Number: 23378
List Number: 1
Creator: Patel, Jayesh

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-23376-1
Client Project/Site: RH/SGR WQG 14117:25

For:
CWE Corporation
1561 E. Orangethorpe Avenue
Suite 240
Fullerton, California 92831-5202

Attn: Gerald Greene

Authorized for release by:
3/25/2020 9:14:18 AM

Lori Thompson, Project Manager I
(714)895-5494
lorithompson@eurofinsus.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23376-1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job ID: 570-23376-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-23376-1

Comments
No additional comments.

Receipt
The sample was received on 3/12/2020 8:45 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Lab Admin
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23376-1

Client Sample ID: 20200312RHSGR-BCD

Lab Sample ID: 570-23376-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0113		0.00100	0.000610	mg/L	1		200.8	Total Recoverable
Lead	0.00434		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Zinc	0.0524		0.00500	0.00347	mg/L	1		200.8	Total Recoverable
Copper	0.00525		0.00100	0.000610	mg/L	1		200.8	Dissolved
Lead	0.000210	J	0.00100	0.000190	mg/L	1		200.8	Dissolved
Zinc	0.0208		0.00500	0.00347	mg/L	1		200.8	Dissolved
Hardness as calcium carbonate	30.0		2.00	0.989	mg/L	1		SM 2340C	Total/NA
Total Suspended Solids	83.3		3.33	2.76	mg/L	1		SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23376-1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: 20200312RHSGR-BCD
Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23376-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.0113		0.00100	0.000610	mg/L		03/23/20 14:06	03/24/20 15:58	1
Lead	0.00434		0.00100	0.000190	mg/L		03/23/20 14:06	03/24/20 15:58	1
Zinc	0.0524		0.00500	0.00347	mg/L		03/23/20 14:06	03/24/20 15:58	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23376-1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: 20200312RHSGR-BCD
Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23376-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.00525		0.00100	0.000610	mg/L		03/23/20 18:00	03/24/20 13:43	1
Lead	0.000210	J	0.00100	0.000190	mg/L		03/23/20 18:00	03/24/20 13:43	1
Zinc	0.0208		0.00500	0.00347	mg/L		03/23/20 18:00	03/24/20 13:43	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23376-1

General Chemistry

Client Sample ID: 20200312RHSGR-BCD
Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23376-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	30.0		2.00	0.989	mg/L			03/24/20 15:01	1
Total Suspended Solids	83.3		3.33	2.76	mg/L			03/14/20 14:52	1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-58982/1-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.00100	0.000610	mg/L		03/23/20 14:06	03/24/20 14:40	1
Lead	ND		0.00100	0.000190	mg/L		03/23/20 14:06	03/24/20 14:40	1
Zinc	ND		0.00500	0.00347	mg/L		03/23/20 14:06	03/24/20 14:40	1

Lab Sample ID: LCS 570-58982/2-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.100	0.1008		mg/L		101	80 - 120
Lead	0.100	0.09978		mg/L		100	80 - 120
Zinc	0.100	0.1041		mg/L		104	80 - 120

Lab Sample ID: LCSD 570-58982/3-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.100	0.1009		mg/L		101	80 - 120	0	20
Lead	0.100	0.1004		mg/L		100	80 - 120	1	20
Zinc	0.100	0.1038		mg/L		104	80 - 120	0	20

Lab Sample ID: 570-23272-A-1-B MS
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.0152		0.100	0.1176		mg/L		102	80 - 120
Lead	0.00206		0.100	0.1042		mg/L		102	80 - 120
Zinc	0.0367		0.100	0.1461		mg/L		109	80 - 120

Lab Sample ID: 570-23272-A-1-C MSD
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.0152		0.100	0.1169		mg/L		102	80 - 120	1	20
Lead	0.00206		0.100	0.1023		mg/L		100	80 - 120	2	20
Zinc	0.0367		0.100	0.1432		mg/L		106	80 - 120	2	20

Lab Sample ID: MB 570-59042/1-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 59042

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.00100	0.000610	mg/L		03/23/20 18:00	03/24/20 13:21	1
Lead	ND		0.00100	0.000190	mg/L		03/23/20 18:00	03/24/20 13:21	1
Zinc	ND		0.00500	0.00347	mg/L		03/23/20 18:00	03/24/20 13:21	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-59042/2-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 59042

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Copper			0.100	0.1008		mg/L		101	80 - 120		
Lead			0.100	0.1032		mg/L		103	80 - 120		
Zinc			0.100	0.1044		mg/L		104	80 - 120		

Lab Sample ID: LCSD 570-59042/3-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 59042

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper			0.100	0.1011		mg/L		101	80 - 120	0	20
Lead			0.100	0.1007		mg/L		101	80 - 120	2	20
Zinc			0.100	0.1042		mg/L		104	80 - 120	0	20

Lab Sample ID: 570-23373-C-1-B MS
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 59042

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Copper	0.00414		0.100	0.1066		mg/L		102	80 - 120		
Lead	0.000296	J	0.100	0.1034		mg/L		103	80 - 120		
Zinc	0.0249		0.100	0.1414		mg/L		117	80 - 120		

Lab Sample ID: 570-23373-C-1-C MSD
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 59042

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.00414		0.100	0.1082		mg/L		104	80 - 120	1	20
Lead	0.000296	J	0.100	0.1043		mg/L		104	80 - 120	1	20
Zinc	0.0249		0.100	0.1388		mg/L		114	80 - 120	2	20

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 570-59291/1
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.00	0.989	mg/L			03/24/20 15:01	1

Lab Sample ID: LCS 570-59291/2
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate			10.0	10.00		mg/L		100	85 - 115		

Method: SM 2340C - Hardness, Total (mg/l as CaC03) (Continued)

Lab Sample ID: LCS 570-59291/3
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate			100	100.0		mg/L		100	85 - 115		

Lab Sample ID: 570-23380-D-1 DU
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Hardness as calcium carbonate	12.0			14.00		mg/L				15	25

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-57343/1
Matrix: Water
Analysis Batch: 57343

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		1.00	0.829	mg/L			03/14/20 14:52	1

Lab Sample ID: LCS 570-57343/2
Matrix: Water
Analysis Batch: 57343

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			100	107.0		mg/L		107	85 - 115		

Lab Sample ID: LCSD 570-57343/3
Matrix: Water
Analysis Batch: 57343

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
Total Suspended Solids			100	108.0		mg/L		108	85 - 115	1	10

Lab Sample ID: 570-23493-E-1 DU
Matrix: Water
Analysis Batch: 57343

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	1140			1156		mg/L				1	10

QC Association Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23376-1

Metals

Prep Batch: 58982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23376-1	20200312RHSGR-BCD	Total Recoverable	Surface Water	200.8	
MB 570-58982/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58982/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58982/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23272-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	
570-23272-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

Prep Batch: 59042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23376-1	20200312RHSGR-BCD	Dissolved	Surface Water	200.8	
MB 570-59042/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-59042/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-59042/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23373-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	
570-23373-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	

Analysis Batch: 59299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23376-1	20200312RHSGR-BCD	Dissolved	Surface Water	200.8	59042
570-23376-1	20200312RHSGR-BCD	Total Recoverable	Surface Water	200.8	58982
MB 570-58982/1-A	Method Blank	Total Recoverable	Water	200.8	58982
MB 570-59042/1-A	Method Blank	Total Recoverable	Water	200.8	59042
LCS 570-58982/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58982
LCS 570-59042/2-A	Lab Control Sample	Total Recoverable	Water	200.8	59042
LCSD 570-58982/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58982
LCSD 570-59042/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	59042
570-23272-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	58982
570-23272-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	58982
570-23373-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	59042
570-23373-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	59042

General Chemistry

Analysis Batch: 57343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23376-1	20200312RHSGR-BCD	Total/NA	Surface Water	SM 2540D	
MB 570-57343/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 570-57343/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 570-57343/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
570-23493-E-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 59291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23376-1	20200312RHSGR-BCD	Total/NA	Surface Water	SM 2340C	
MB 570-59291/1	Method Blank	Total/NA	Water	SM 2340C	
LCS 570-59291/2	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 570-59291/3	Lab Control Sample	Total/NA	Water	SM 2340C	
570-23380-D-1 DU	Duplicate	Total/NA	Water	SM 2340C	

Lab Chronicle

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23376-1

Client Sample ID: 20200312RHSGR-BCD

Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23376-1

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	200.8			50 mL	50 mL	59042	03/23/20 18:00	X7RL	ECL 1
Dissolved	Analysis	200.8		1			59299	03/24/20 13:43	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total Recoverable	Prep	200.8			50 mL	50 mL	58982	03/23/20 14:06	WL8G	ECL 1
Total Recoverable	Analysis	200.8		1			59299	03/24/20 15:58	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total/NA	Analysis	SM 2340C		1	50 mL	50 mL	59291	03/24/20 15:01	KZ4O	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	300 mL	1000 mL	57343	03/14/20 14:52	CV9U	ECL 1
	Instrument ID: NOEQUIP									

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23376-1

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

Method Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23376-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	ECL 1
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	ECL 1
200.8	Preparation, Total Recoverable Metals	EPA	ECL 1

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23376-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-23376-1	20200312RHSGR-BCD	Surface Water	03/12/20 16:00	03/12/20 20:45	

23376

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us

570-23376 Chain of Custody

CHAIN OF CUSTODY RECORD

DATE: 3/12/2020

PAGE: 1 OF 1

LABORATORY CLIENT: CWE Corp.

ADDRESS: 1561 E. Orangethorpe Avenue, Suite 240

CITY: Fullerton STATE: CA ZIP: 92831-5202

TEL: 714-526-7500x211 E-MAIL: JPereira@cwecorp.com

CLIENT PROJECT NAME / NUMBER: RH/SGR WQG 14117:25

P.O. NO.: 14117

PROJECT CONTACT: Jason Pereira

SAMPLER(S): (PRINT) Ryan Kearns

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

(1) Cu, Pb, Zn

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	SM 2540 D TSS	EPA 200.8 Total Metals	SM 2340C Total Hardness	EPA 200.8 Dissolved Metals
	20200312RHSGR-BCD	3/12/2020	16:00	Surface Wt	4	1	3	1	X	X(1)	X	X(1)

Relinquished by: (Signature) Ryan Kearns	Received by: (Signature/Affiliation) CWE	Date: 03/12/2020	Time: 17:30
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 3/12/20	Time: 2045
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

2.3 12.3 SOC

06/02/14 Revision

3/25/2020

Login Sample Receipt Checklist

Client: CWE Corporation

Job Number: 570-23376-1

Login Number: 23376
List Number: 1
Creator: Patel, Jayesh

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-23374-1
Client Project/Site: RH/SGR WQG 14117:25

For:
CWE Corporation
1561 E. Orangethorpe Avenue
Suite 240
Fullerton, California 92831-5202

Attn: Gerald Greene

Authorized for release by:
3/26/2020 9:17:22 AM

Lori Thompson, Project Manager I
(714)895-5494
lorithompson@eurofinsus.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
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.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Job ID: 570-23374-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-23374-1

Comments
No additional comments.

Receipt
The sample was received on 3/12/2020 8:45 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
Method 608: A matrix spike/matrix spike duplicate (MS/MSD) was not performed for preparation batch 570-57245, LCS/LCSD was performed to meet QC requirements.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Lab Admin
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work
Method Subcontract Low Level Mercury: This method was subcontracted to Eurofins Frontier Global Sciences LLC. The subcontract laboratory certification is different from that of the facility issuing the final report.

Detection Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Client Sample ID: 20200312RHSGR-BLC

Lab Sample ID: 570-23374-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Endosulfan I	0.058		0.0039	0.0020	ug/L	1		608.3	Total/NA
Copper	0.0170		0.00100	0.000610	mg/L	1		200.8	Total Recoverable
Lead	0.00787		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Zinc	0.111		0.00500	0.00347	mg/L	1		200.8	Total Recoverable
Copper	0.00609		0.00100	0.000610	mg/L	1		200.8	Dissolved
Lead	0.000347	J	0.00100	0.000190	mg/L	1		200.8	Dissolved
Zinc	0.0369		0.00500	0.00347	mg/L	1		200.8	Dissolved
Hardness as calcium carbonate	32.0		2.00	0.989	mg/L	1		SM 2340C	Total/NA
Total Suspended Solids	48.3		3.33	2.76	mg/L	1		SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Method: 608.3 - Organochlorine Pesticides in Water

Client Sample ID: 20200312RHSGR-BLC
Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23374-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	**0.058**		0.0039	0.0020	ug/L		03/13/20 20:44	03/16/20 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*50 - 135*	*03/13/20 20:44*	*03/16/20 15:14*	*1*
DCB Decachlorobiphenyl (Surr)	*81*	*p*	*50 - 135*	*03/13/20 20:44*	*03/16/20 15:14*	*1*

Client Sample Results

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: 20200312RHSGR-BLC
Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23374-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.0170		0.00100	0.000610	mg/L		03/23/20 14:06	03/24/20 15:55	1
Lead	0.00787		0.00100	0.000190	mg/L		03/23/20 14:06	03/24/20 15:55	1
Zinc	0.111		0.00500	0.00347	mg/L		03/23/20 14:06	03/24/20 15:55	1

Client Sample Results

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: 20200312RHSGR-BLC
Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23374-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.00609		0.00100	0.000610	mg/L		03/23/20 17:07	03/24/20 18:24	1
Lead	0.000347	J	0.00100	0.000190	mg/L		03/23/20 17:07	03/24/20 18:24	1
Zinc	0.0369		0.00500	0.00347	mg/L		03/23/20 17:07	03/24/20 18:24	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

General Chemistry

Client Sample ID: 20200312RHSGR-BLC
Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23374-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	32.0		2.00	0.989	mg/L			03/24/20 15:01	1
Total Suspended Solids	48.3		3.33	2.76	mg/L			03/15/20 10:22	1

Surrogate Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Surface Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(50-135)	(50-135)
570-23374-1	20200312RHSGR-BLC	61	81 p

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB1
Lab Sample ID	Client Sample ID	(50-135)	(50-135)
LCS 570-57245/2-A	Lab Control Sample	74	65
LCSD 570-57245/3-A	Lab Control Sample Dup	78	65
MB 570-57245/1-A	Method Blank	73	63

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl (Surr)

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 570-57245/1-A
Matrix: Water
Analysis Batch: 57452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57245

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		0.0040	0.0021	ug/L		03/13/20 20:44	03/16/20 14:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*50 - 135*	*03/13/20 20:44*	*03/16/20 14:32*	*1*
DCB Decachlorobiphenyl (Surr)	*63*		*50 - 135*	*03/13/20 20:44*	*03/16/20 14:32*	*1*

Lab Sample ID: LCS 570-57245/2-A
Matrix: Water
Analysis Batch: 57452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 57245

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endosulfan I	0.100	0.1082		ug/L		108	45 - 153

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*74*		*50 - 135*
DCB Decachlorobiphenyl (Surr)	*65*		*50 - 135*

Lab Sample ID: LCSD 570-57245/3-A
Matrix: Water
Analysis Batch: 57452

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 57245

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endosulfan I	0.100	0.1088		ug/L		109	45 - 153	1	28

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*78*		*50 - 135*
DCB Decachlorobiphenyl (Surr)	*65*		*50 - 135*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-58982/1-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.00100	0.000610	mg/L		03/23/20 14:06	03/24/20 14:40	1
Lead	ND		0.00100	0.000190	mg/L		03/23/20 14:06	03/24/20 14:40	1
Zinc	ND		0.00500	0.00347	mg/L		03/23/20 14:06	03/24/20 14:40	1

Lab Sample ID: LCS 570-58982/2-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.100	0.1008		mg/L		101	80 - 120
Lead	0.100	0.09978		mg/L		100	80 - 120
Zinc	0.100	0.1041		mg/L		104	80 - 120

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 570-58982/3-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper			0.100	0.1009		mg/L		101	80 - 120	0	20
Lead			0.100	0.1004		mg/L		100	80 - 120	1	20
Zinc			0.100	0.1038		mg/L		104	80 - 120	0	20

Lab Sample ID: 570-23272-A-1-B MS
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Copper	0.0152		0.100	0.1176		mg/L		102	80 - 120		
Lead	0.00206		0.100	0.1042		mg/L		102	80 - 120		
Zinc	0.0367		0.100	0.1461		mg/L		109	80 - 120		

Lab Sample ID: 570-23272-A-1-C MSD
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.0152		0.100	0.1169		mg/L		102	80 - 120	1	20
Lead	0.00206		0.100	0.1023		mg/L		100	80 - 120	2	20
Zinc	0.0367		0.100	0.1432		mg/L		106	80 - 120	2	20

Lab Sample ID: MB 570-59036/1-A
Matrix: Water
Analysis Batch: 59381

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 59036

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.00100	0.000610	mg/L		03/23/20 17:07	03/24/20 16:56	1
Lead	ND		0.00100	0.000190	mg/L		03/23/20 17:07	03/24/20 16:56	1
Zinc	ND		0.00500	0.00347	mg/L		03/23/20 17:07	03/24/20 16:56	1

Lab Sample ID: LCS 570-59036/2-A
Matrix: Water
Analysis Batch: 59381

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 59036

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Copper			0.100	0.09987		mg/L		100	80 - 120		
Lead			0.100	0.09979		mg/L		100	80 - 120		
Zinc			0.100	0.1024		mg/L		102	80 - 120		

Lab Sample ID: LCSD 570-59036/3-A
Matrix: Water
Analysis Batch: 59381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 59036

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper			0.100	0.09881		mg/L		99	80 - 120	1	20
Lead			0.100	0.09819		mg/L		98	80 - 120	2	20
Zinc			0.100	0.1012		mg/L		101	80 - 120	1	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 570-23350-C-10-B MS
Matrix: Water
Analysis Batch: 59381

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 59036

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.00351		0.100	0.1043		mg/L		101	80 - 120
Lead	0.000198	J	0.100	0.1001		mg/L		100	80 - 120
Zinc	0.0777		0.100	0.1851		mg/L		107	80 - 120

Lab Sample ID: 570-23350-C-10-C MSD
Matrix: Water
Analysis Batch: 59381

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 59036

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.00351		0.100	0.1046		mg/L		101	80 - 120	0	20
Lead	0.000198	J	0.100	0.1006		mg/L		100	80 - 120	0	20
Zinc	0.0777		0.100	0.1854		mg/L		108	80 - 120	0	20

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 570-59291/1
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.00	0.989	mg/L			03/24/20 15:01	1

Lab Sample ID: LCS 570-59291/2
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	10.0	10.00		mg/L		100	85 - 115

Lab Sample ID: LCS 570-59291/3
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hardness as calcium carbonate	100	100.0		mg/L		100	85 - 115

Lab Sample ID: 570-23380-D-1 DU
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Hardness as calcium carbonate	12.0		14.00		mg/L		15	25

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-57363/1
Matrix: Water
Analysis Batch: 57363

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		1.00	0.829	mg/L			03/15/20 10:22	1

Lab Sample ID: LCS 570-57363/2
Matrix: Water
Analysis Batch: 57363

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			100	104.0		mg/L		104	85 - 115		

Lab Sample ID: LCSD 570-57363/3
Matrix: Water
Analysis Batch: 57363

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
Total Suspended Solids			100	104.0		mg/L		104	85 - 115	0	10

Lab Sample ID: 570-23347-B-2 DU
Matrix: Water
Analysis Batch: 57363

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	7.67			8.000		mg/L				4	10

GC Semi VOA

Prep Batch: 57245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23374-1	20200312RHSGR-BLC	Total/NA	Surface Water	608	
MB 570-57245/1-A	Method Blank	Total/NA	Water	608	
LCS 570-57245/2-A	Lab Control Sample	Total/NA	Water	608	
LCSD 570-57245/3-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 57452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23374-1	20200312RHSGR-BLC	Total/NA	Surface Water	608.3	57245
MB 570-57245/1-A	Method Blank	Total/NA	Water	608.3	57245
LCS 570-57245/2-A	Lab Control Sample	Total/NA	Water	608.3	57245
LCSD 570-57245/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	57245

Metals

Prep Batch: 58982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23374-1	20200312RHSGR-BLC	Total Recoverable	Surface Water	200.8	
MB 570-58982/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58982/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58982/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23272-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	
570-23272-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

Prep Batch: 59036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23374-1	20200312RHSGR-BLC	Dissolved	Surface Water	200.8	
MB 570-59036/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-59036/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-59036/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23350-C-10-B MS	Matrix Spike	Dissolved	Water	200.8	
570-23350-C-10-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	

Analysis Batch: 59299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23374-1	20200312RHSGR-BLC	Total Recoverable	Surface Water	200.8	58982
MB 570-58982/1-A	Method Blank	Total Recoverable	Water	200.8	58982
LCS 570-58982/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58982
LCSD 570-58982/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58982
570-23272-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	58982
570-23272-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	58982

Analysis Batch: 59381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23374-1	20200312RHSGR-BLC	Dissolved	Surface Water	200.8	59036
MB 570-59036/1-A	Method Blank	Total Recoverable	Water	200.8	59036
LCS 570-59036/2-A	Lab Control Sample	Total Recoverable	Water	200.8	59036
LCSD 570-59036/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	59036
570-23350-C-10-B MS	Matrix Spike	Dissolved	Water	200.8	59036
570-23350-C-10-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	59036

QC Association Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

General Chemistry

Analysis Batch: 57363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23374-1	20200312RHSGR-BLC	Total/NA	Surface Water	SM 2540D	
MB 570-57363/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 570-57363/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 570-57363/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
570-23347-B-2 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 59291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23374-1	20200312RHSGR-BLC	Total/NA	Surface Water	SM 2340C	
MB 570-59291/1	Method Blank	Total/NA	Water	SM 2340C	
LCS 570-59291/2	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 570-59291/3	Lab Control Sample	Total/NA	Water	SM 2340C	
570-23380-D-1 DU	Duplicate	Total/NA	Water	SM 2340C	

Lab Chronicle

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Client Sample ID: 20200312RHSGR-BLC

Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23374-1

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	608			1025.9 mL	2 mL	57245	03/13/20 20:44	UM1W	ECL 1
Total/NA	Analysis	608.3		1			57452	03/16/20 15:14	UHHN	ECL 1
	Instrument ID: GC51									
Dissolved	Prep	200.8			50 mL	50 mL	59036	03/23/20 17:07	X7RL	ECL 1
Dissolved	Analysis	200.8		1			59381	03/24/20 18:24	UFLE	ECL 1
	Instrument ID: ICPMS05									
Total Recoverable	Prep	200.8			50 mL	50 mL	58982	03/23/20 14:06	WL8G	ECL 1
Total Recoverable	Analysis	200.8		1			59299	03/24/20 15:55	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total/NA	Analysis	SM 2340C		1	50 mL	50 mL	59291	03/24/20 15:01	KZ4O	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	300 mL	1000 mL	57363	03/15/20 10:22	CV9U	ECL 1
	Instrument ID: NOEQUIP									

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

FGS = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

Accreditation/Certification Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

Method Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Method	Method Description	Protocol	Laboratory
608.3	Organochlorine Pesticides in Water	40CFR136A	ECL 1
200.8	Metals (ICP/MS)	EPA	ECL 1
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	ECL 1
1631	Low Level Mercury by 1631	EPA	FGS
200.8	Preparation, Total Recoverable Metals	EPA	ECL 1
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	ECL 1

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494
FGS = Eurofins Frontier Global Sciences LLC, 5755 8th Street E, Tacoma, WA 98424

Sample Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23374-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-23374-1	20200312RHSGR-BLC	Surface Water	03/12/20 16:00	03/12/20 20:45	

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

20 March 2020

Lori Thompson
Eurofins Calscience, LLC
7440 Lincoln Way
Garden Grove, CA 92841

RE: Low Level Hg - 2019

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,

Patrick Garcia-Strickland
Business Unit Manager

eurofins | Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
20200312RHSGR-BLC (570-23374-1)	0C00078-01	Water	12-Mar-20 16:00	17-Mar-20 09:45

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Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 17-Mar-20 09:45. The samples were received intact, on-ice within a sealed cooler at

Cooler	Temp C°
Default Cooler	0.0

SAMPLE PREPARATION AND ANALYSIS

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

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: CalScience Date & Time Received: 3/17/2020 0945 Date Labeled: 3/17/2020 Labeled By: QS

Matrix: Water Received By: MS Label Verified By: SL 3/17/2020

# of Coolers Received: 1 Samples Arrived By: K 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:	Y	
Custody Seals are present and intact:	N	
Custody seals signed:	NA	

TID: 18139780 CF: -0.4 °C Date/time: 3/17/2020 1000 By: MS

Cooler 1:	0.4 °C	w/ CF:	0.0 °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:	Y	
Date and time of collection:	Y	
Sampled by:	N	
Preservation type:	Y	
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N	

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

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

0C00078

Page 2 of 2 0132

3/26/2020

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Phone: 714-895-5494 Fax: 714-894-7501

JC00078

Chain of Custody Record

eurofins Calscience

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Thompson, Lori	Carrier Tracking No(s):	COC No: 570-26665.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: lorithompson@eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Frontier Global Sciences LLC		Accreditations Required (See note):		Job #: 570-23374-1
Address: 5755 8th Street E, ,	Due Date Requested: 3/26/2020			
City: Tacoma	TAT Requested (days):			
State, Zip: WA, 98424				
Phone:	PO #:			
Email:	WO #:			
Project Name: RH/SGR WQG 14117:25	Project #: 57000383			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Subcontract Low Level Mercury)/ 1631 Low Level Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
20200312RHSGR-BLC (570-23374-1)	3/12/20	16:00 Pacific		Water			X	1	10-Day TAT, J-flags req'd, Std Excel EDD req'd

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
			[signature]	3/17/2020 0945	EFGS
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

7700 3411 1747

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Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

20200312RHSGR-BLC (570-23374-1)

0C00078-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
Sample Preparation: EFGS SOP2796 EPA 1631 Oxidation											
Mercury	**12.1**	0.83	5.00	ng/L	10	F003266	18-Mar-20	0C18009	18-Mar-20	EPA 1631E	

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C18009 - F003266											
Cal Standard (0C18009-CAL1)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.52	-		ng/L	0.50000		103				
Cal Standard (0C18009-CAL2)					Prepared & Analyzed: 18-Mar-20						
Mercury	1.00	-		ng/L	1.0000		100				
Cal Standard (0C18009-CAL3)					Prepared & Analyzed: 18-Mar-20						
Mercury	4.80	-		ng/L	5.0000		96.0				
Cal Standard (0C18009-CAL4)					Prepared & Analyzed: 18-Mar-20						
Mercury	19.89	-		ng/L	20.000		99.5				
Cal Standard (0C18009-CAL5)					Prepared & Analyzed: 18-Mar-20						
Mercury	40.40	-		ng/L	40.000		101				
Calibration Blank (0C18009-CCB1)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.13	-		ng/L							
Calibration Blank (0C18009-CCB2)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.17	-		ng/L							
Calibration Blank (0C18009-CCB3)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.17	-		ng/L							
Calibration Blank (0C18009-CCB4)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.14	-		ng/L							
Calibration Check (0C18009-CCV1)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.20	-		ng/L	5.0350		103	77-123			

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Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C18009 - F003266											
Calibration Check (0C18009-CCV2)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.27	-		ng/L	5.0350		105	77-123			
Calibration Check (0C18009-CCV3)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.35	-		ng/L	5.0350		106	77-123			
Calibration Check (0C18009-CCV4)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.23	-		ng/L	5.0350		104	77-123			
Instrument Blank (0C18009-IBL1)					Prepared & Analyzed: 18-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C18009-IBL2)					Prepared & Analyzed: 18-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (0C18009-IBL3)					Prepared & Analyzed: 18-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Initial Cal Blank (0C18009-ICB1)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.08	-		ng/L							
Initial Cal Check (0C18009-ICV1)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.16	-		ng/L	5.0350		102	79-121			
Batch F003266 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003266-BLK1)					Prepared & Analyzed: 18-Mar-20						
Mercury	0.17	0.08	0.50	ng/L							J

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Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch F003266 - EFGS SOP2796 EPA 1631 Oxidation											
Blank (F003266-BLK2)					Prepared & Analyzed: 18-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
Blank (F003266-BLK3)					Prepared & Analyzed: 18-Mar-20						
Mercury	ND	0.08	0.50	ng/L							U
LCS (F003266-BS1)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.10	0.08	0.50	ng/L	5.0000		102	80-120			
LCS Dup (F003266-BSD1)					Prepared & Analyzed: 18-Mar-20						
Mercury	5.42	0.08	0.50	ng/L	5.0000		108	80-120	6.01	24	
Duplicate (F003266-DUP1)		**Source: 0C00081-02**			Prepared & Analyzed: 18-Mar-20						
Mercury	29.56	0.83	5.00	ng/L		29.82			0.869	24	
Duplicate (F003266-DUP2)		**Source: 0C00058-02RE1**			Prepared & Analyzed: 18-Mar-20						
Mercury	21.16	0.08	0.50	ng/L		20.49			3.20	24	
Matrix Spike (F003266-MS1)		**Source: 0C00079-03**			Prepared & Analyzed: 18-Mar-20						
Mercury	6.42	0.08	0.50	ng/L	5.0000	1.72	94.0	71-125			
Matrix Spike (F003266-MS2)		**Source: 0C00080-03**			Prepared & Analyzed: 18-Mar-20						
Mercury	5.35	0.08	0.50	ng/L	5.0000	0.30	101	71-125			
Matrix Spike Dup (F003266-MSD1)		**Source: 0C00079-03**			Prepared & Analyzed: 18-Mar-20						
Mercury	6.44	0.08	0.50	ng/L	5.0000	1.72	94.4	71-125	0.282	24	
Matrix Spike Dup (F003266-MSD2)		**Source: 0C00080-03**			Prepared & Analyzed: 18-Mar-20						
Mercury	5.56	0.08	0.50	ng/L	5.0000	0.30	105	71-125	3.75	24	

eurofins | Frontier Global Sciences

5755 8th Street East
Tacoma, WA 98424
Phone: (253) 922-2310

Eurofins Calscience, LLC	Project: Low Level Hg - 2019	
7440 Lincoln Way	Project Number: 57000383	**Reported:**
Garden Grove CA, 92841	Project Manager: Lori Thompson	20-Mar-20 20:56

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.
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

23374

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

570-23374 Chain of Custody

CHAIN OF CUSTODY RECORD

DATE: 3/12/2020

PAGE: 1 OF 1

LABORATORY CLIENT: CWE Corp.

ADDRESS: 1561 E. Orangethorpe Avenue, Suite 240

CITY: Fullerton STATE: CA ZIP: 92831-5202

TEL: 714-526-7500x211 E-MAIL: JPereira@cwecorp.com

CLIENT PROJECT NAME / NUMBER: RH/SGR WQG 14117:25

P.O. NO.: 14117

PROJECT CONTACT: Jason Pereira

SAMPLER(S): (PRINT) EDWARD HERRERA

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

(1) Cu, Pb, Zn

(2) Only Endosulfan I reported

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	SM 2540 D TSS	EPA 200.8 Total Metals	SM 2340C Total Hardness	EPA 200.8 Dissolved Metals	EPA 608 Pesticides & PCBs (2x1L)	EPA 1631E Mercury
	20200312RHSGR-BLC	3/12/2020	1600	Surface Wt	7	4	3	1	X	X(1)	x	X(1)	X(2)	X

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 3/12/20	Time: 17:35
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 3/12/20	Time: 2045
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

3.12.20 516

06/02/14 Revision

3/26/2020

Login Sample Receipt Checklist

Client: CWE Corporation

Job Number: 570-23374-1

Login Number: 23374
List Number: 1
Creator: Patel, Jayesh

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Calscience LLC
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-23377-1
Client Project/Site: RH/SGR WQG 14117:25

For:
CWE Corporation
1561 E. Orangethorpe Avenue
Suite 240
Fullerton, California 92831-5202

Attn: Gerald Greene

Authorized for release by:
3/25/2020 9:18:04 AM

Lori Thompson, Project Manager I
(714)895-5494
lorithompson@eurofinsus.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Definitions/Glossary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23377-1

Qualifiers

Metals

Qualifier	Qualifier Description
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.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job ID: 570-23377-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-23377-1

Comments
No additional comments.

Receipt
The sample was received on 3/12/2020 8:45 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.5º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Lab Admin
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23377-1

Client Sample ID: 20200312RHSGR-BRD

Lab Sample ID: 570-23377-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	0.0145		0.00100	0.000610	mg/L	1		200.8	Total Recoverable
Lead	0.00760		0.00100	0.000190	mg/L	1		200.8	Total Recoverable
Zinc	0.103		0.00500	0.00347	mg/L	1		200.8	Total Recoverable
Copper	0.00529		0.00100	0.000610	mg/L	1		200.8	Dissolved
Lead	0.000272	J	0.00100	0.000190	mg/L	1		200.8	Dissolved
Zinc	0.0193		0.00500	0.00347	mg/L	1		200.8	Dissolved
Hardness as calcium carbonate	44.0		2.00	0.989	mg/L	1		SM 2340C	Total/NA
Total Suspended Solids	102		3.33	2.76	mg/L	1		SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23377-1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Client Sample ID: 20200312RHSGR-BRD
Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23377-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.0145		0.00100	0.000610	mg/L		03/23/20 14:06	03/24/20 16:01	1
Lead	0.00760		0.00100	0.000190	mg/L		03/23/20 14:06	03/24/20 16:01	1
Zinc	0.103		0.00500	0.00347	mg/L		03/23/20 14:06	03/24/20 16:01	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23377-1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Client Sample ID: 20200312RHSGR-BRD
Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23377-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.00529		0.00100	0.000610	mg/L		03/23/20 18:00	03/24/20 13:51	1
Lead	0.000272	J	0.00100	0.000190	mg/L		03/23/20 18:00	03/24/20 13:51	1
Zinc	0.0193		0.00500	0.00347	mg/L		03/23/20 18:00	03/24/20 13:51	1

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23377-1

General Chemistry

Client Sample ID: 20200312RHSGR-BRD
Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23377-1
Matrix: Surface Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	44.0		2.00	0.989	mg/L			03/24/20 15:01	1
Total Suspended Solids	102		3.33	2.76	mg/L			03/14/20 14:52	1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 570-58982/1-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.00100	0.000610	mg/L		03/23/20 14:06	03/24/20 14:40	1
Lead	ND		0.00100	0.000190	mg/L		03/23/20 14:06	03/24/20 14:40	1
Zinc	ND		0.00500	0.00347	mg/L		03/23/20 14:06	03/24/20 14:40	1

Lab Sample ID: LCS 570-58982/2-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.100	0.1008		mg/L		101	80 - 120
Lead	0.100	0.09978		mg/L		100	80 - 120
Zinc	0.100	0.1041		mg/L		104	80 - 120

Lab Sample ID: LCSD 570-58982/3-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.100	0.1009		mg/L		101	80 - 120	0	20
Lead	0.100	0.1004		mg/L		100	80 - 120	1	20
Zinc	0.100	0.1038		mg/L		104	80 - 120	0	20

Lab Sample ID: 570-23356-D-1-B MS
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.0136		0.100	0.1087		mg/L		95	80 - 120
Lead	0.00581		0.100	0.1061		mg/L		100	80 - 120
Zinc	0.0736		0.100	0.1718		mg/L		98	80 - 120

Lab Sample ID: 570-23356-D-1-C MSD
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 58982

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.0136		0.100	0.1086		mg/L		95	80 - 120	0	20
Lead	0.00581		0.100	0.1055		mg/L		100	80 - 120	1	20
Zinc	0.0736		0.100	0.1726		mg/L		99	80 - 120	0	20

Lab Sample ID: MB 570-59042/1-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 59042

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.00100	0.000610	mg/L		03/23/20 18:00	03/24/20 13:21	1
Lead	ND		0.00100	0.000190	mg/L		03/23/20 18:00	03/24/20 13:21	1
Zinc	ND		0.00500	0.00347	mg/L		03/23/20 18:00	03/24/20 13:21	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 570-59042/2-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 59042

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Copper			0.100	0.1008		mg/L		101	80 - 120		
Lead			0.100	0.1032		mg/L		103	80 - 120		
Zinc			0.100	0.1044		mg/L		104	80 - 120		

Lab Sample ID: LCSD 570-59042/3-A
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 59042

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper			0.100	0.1011		mg/L		101	80 - 120	0	20
Lead			0.100	0.1007		mg/L		101	80 - 120	2	20
Zinc			0.100	0.1042		mg/L		104	80 - 120	0	20

Lab Sample ID: 570-23373-C-1-B MS
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 59042

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Copper	0.00414		0.100	0.1066		mg/L		102	80 - 120		
Lead	0.000296	J	0.100	0.1034		mg/L		103	80 - 120		
Zinc	0.0249		0.100	0.1414		mg/L		117	80 - 120		

Lab Sample ID: 570-23373-C-1-C MSD
Matrix: Water
Analysis Batch: 59299

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 59042

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.00414		0.100	0.1082		mg/L		104	80 - 120	1	20
Lead	0.000296	J	0.100	0.1043		mg/L		104	80 - 120	1	20
Zinc	0.0249		0.100	0.1388		mg/L		114	80 - 120	2	20

Method: SM 2340C - Hardness, Total (mg/l as CaC03)

Lab Sample ID: MB 570-59291/1
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.00	0.989	mg/L			03/24/20 15:01	1

Lab Sample ID: LCS 570-59291/2
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate			10.0	10.00		mg/L		100	85 - 115		

Method: SM 2340C - Hardness, Total (mg/l as CaC03) (Continued)

Lab Sample ID: LCS 570-59291/3
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Hardness as calcium carbonate			100	100.0		mg/L		100	85 - 115		

Lab Sample ID: 570-23380-D-1 DU
Matrix: Water
Analysis Batch: 59291

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Hardness as calcium carbonate	12.0			14.00		mg/L				15	25

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-57343/1
Matrix: Water
Analysis Batch: 57343

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		1.00	0.829	mg/L			03/14/20 14:52	1

Lab Sample ID: LCS 570-57343/2
Matrix: Water
Analysis Batch: 57343

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			100	107.0		mg/L		107	85 - 115		

Lab Sample ID: LCSD 570-57343/3
Matrix: Water
Analysis Batch: 57343

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
Total Suspended Solids			100	108.0		mg/L		108	85 - 115	1	10

Lab Sample ID: 570-23493-E-1 DU
Matrix: Water
Analysis Batch: 57343

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	1140			1156		mg/L				1	10

Metals

Prep Batch: 58982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23377-1	20200312RHSGR-BRD	Total Recoverable	Surface Water	200.8	
MB 570-58982/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-58982/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-58982/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23356-D-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	
570-23356-D-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	

Prep Batch: 59042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23377-1	20200312RHSGR-BRD	Dissolved	Surface Water	200.8	
MB 570-59042/1-A	Method Blank	Total Recoverable	Water	200.8	
LCS 570-59042/2-A	Lab Control Sample	Total Recoverable	Water	200.8	
LCSD 570-59042/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	
570-23373-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	
570-23373-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	

Analysis Batch: 59299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23377-1	20200312RHSGR-BRD	Dissolved	Surface Water	200.8	59042
570-23377-1	20200312RHSGR-BRD	Total Recoverable	Surface Water	200.8	58982
MB 570-58982/1-A	Method Blank	Total Recoverable	Water	200.8	58982
MB 570-59042/1-A	Method Blank	Total Recoverable	Water	200.8	59042
LCS 570-58982/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58982
LCS 570-59042/2-A	Lab Control Sample	Total Recoverable	Water	200.8	59042
LCSD 570-58982/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	58982
LCSD 570-59042/3-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	59042
570-23356-D-1-B MS	Matrix Spike	Total Recoverable	Water	200.8	58982
570-23356-D-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	58982
570-23373-C-1-B MS	Matrix Spike	Dissolved	Water	200.8	59042
570-23373-C-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	59042

General Chemistry

Analysis Batch: 57343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23377-1	20200312RHSGR-BRD	Total/NA	Surface Water	SM 2540D	
MB 570-57343/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 570-57343/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 570-57343/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
570-23493-E-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 59291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-23377-1	20200312RHSGR-BRD	Total/NA	Surface Water	SM 2340C	
MB 570-59291/1	Method Blank	Total/NA	Water	SM 2340C	
LCS 570-59291/2	Lab Control Sample	Total/NA	Water	SM 2340C	
LCS 570-59291/3	Lab Control Sample	Total/NA	Water	SM 2340C	
570-23380-D-1 DU	Duplicate	Total/NA	Water	SM 2340C	

Lab Chronicle

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23377-1

Client Sample ID: 20200312RHSGR-BRD

Date Collected: 03/12/20 16:00
Date Received: 03/12/20 20:45

Lab Sample ID: 570-23377-1

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	200.8			50 mL	50 mL	59042	03/23/20 18:00	X7RL	ECL 1
Dissolved	Analysis	200.8		1			59299	03/24/20 13:51	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total Recoverable	Prep	200.8			50 mL	50 mL	58982	03/23/20 14:06	WL8G	ECL 1
Total Recoverable	Analysis	200.8		1			59299	03/24/20 16:01	ZHW5	ECL 1
	Instrument ID: ICPMS05									
Total/NA	Analysis	SM 2340C		1	50 mL	50 mL	59291	03/24/20 15:01	KZ4O	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	300 mL	1000 mL	57343	03/14/20 14:52	CV9U	ECL 1
	Instrument ID: NOEQUIP									

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23377-1

Laboratory: Eurofins Calscience LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	Los Angeles County Sanitation Districts	10109	09-29-20
California	SCAQMD LAP	17LA0919	11-30-20
California	State	2944	09-29-20
Guam	State	20-003R	10-31-20
Nevada	State	CA00111	07-31-20
Oregon	NELAP	CA300001	01-29-21
USDA	US Federal Programs	P330-20-00034	02-10-23
Washington	State	C916-18	10-11-20

Method Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23377-1

Method	Method Description	Protocol	Laboratory
200.8	Metals (ICP/MS)	EPA	ECL 1
SM 2340C	Hardness, Total (mg/l as CaC03)	SM	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	ECL 1
200.8	Preparation, Total Recoverable Metals	EPA	ECL 1

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ECL 1 = Eurofins Calscience LLC Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: CWE Corporation
Project/Site: RH/SGR WQG 14117:25

Job ID: 570-23377-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-23377-1	20200312RHSGR-BRD	Surface Water	03/12/20 16:00	03/12/20 20:45	

23377

eurofins | Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

570-23377 Chain of Custody

CHAIN OF CUSTODY RECORD

DATE: 3/12/2020

PAGE: 1 OF 1

LABORATORY CLIENT: CWE Corp.

ADDRESS: 1561 E. Orangethorpe Avenue, Suite 240

CITY: Fullerton STATE: CA ZIP: 92831-5202

TEL: 714-526-7500x211 E-MAIL: JPereira@cwecorp.com

CLIENT PROJECT NAME / NUMBER: RH/SGR WQG 14117:25

P.O. NO.: 14117

PROJECT CONTACT: Jason Pereira

SAMPLER(S): (PRINT) Katie Harrell

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

(1) Cu, Pb, Zn

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	SM 2540 D TSS	EPA 200.8 Total Metals	SM 2340C Total Hardness	EPA 200.8 Dissolved Metals
	20200312RHSGR-BRD	3/12/2020	16:00	Surface Wt	4	1	3	1	X	X(1)	X	X(1)

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 3/12/20	Time: 12:40
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 3/12/20	Time: 2045
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

3/25/2020

Login Sample Receipt Checklist

Client: CWE Corporation

Job Number: 570-23377-1

Login Number: 23377
List Number: 1
Creator: Patel, Jayesh

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number: 425830
Report Level: II
Report Date: 03/19/2020

Analytical Report *prepared for:*

Jason Pereira
CWE Corporation
1561 E. Orangethorpe Ave
Suite 240
Fullerton, CA 92831

Project: RHSGR_CWE - 14117

Authorized for release by:

Diane Galvan, Project Manager
714-771-9928
diane.galvan@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

ENTHALPY ANALYTICAL

Sample Summary

Jason Pereira
CWE Corporation
1561 E. Orangethorpe Ave
Suite 240
Fullerton, CA 92831

Lab Job #:	425830
Project No:	RHSGR_CWE
Location:	14117
Date Received:	03/12/20

Sample ID	Lab ID	Collected	Matrix
20200312RHSGR-LDW-BDW	425830-001	03/12/20 17:07	Water
20200312RHSGR-LDW-DUP	425830-002	03/12/20 17:07	Water
20200312RHSGR-LDW-BLK	425830-003	03/12/20 17:07	Water
20200312RHSGR-BCD	425830-004	03/12/20 16:00	Water
20200312RHSGR-BLC	425830-005	03/12/20 16:00	Water
20200312RHSGR-BRD	425830-006	03/12/20 16:00	Water

ENTHALPY ANALYTICAL, INC.	Chain of Custody Record	Turn Around Time (Rush by advanced notice only)
806 N. Batavia St., Orange, CA 92868	Lab No: 425830	Standard: ✓ 4 Day: 3 Day:
Phone: (714) 771-6900 Fax: (714)771-9933	Page: 1 of 1	2 Day: 1 Day: Same Day:
Billing: Enthalpy - SoCal	**Matrix:** A = Air DW = Drinking Water FL = Food Liquid FS = Food Solid L = Liquid PP = Pure Product S = Solid SeaW = Sea Water SW = Swab W = Water WP = Wipe O = Other	**Preservatives:** 1 = $Na_2S_2O_3$ 2 = HCl 3 = HNO_3 4 = H_2SO_4 5 = NaOH 6 = Other
c/o Montrose Environmental Group		
1 Park Plaza, Suite 1000, Irvine, CA 92614		

CUSTOMER INFORMATION		PROJECT INFORMATION	
Company:	CWE	Name:	RHSGR
Report To:	Jason Pereira	Number:	14117
Email:	JPereira@cwecorp.com	P.O. #:	
Address:	1561 E. Orangethorpe Avenue Suite 240	Address:	
	Fullerton, CA 92831		
Phone:	1-(714)-526-7500 x211	Global ID:	
Fax:		Sampled By:	Charlotte Knight

	Sample ID	Sampling Date	Sampling Time	Matrix	Container No. / Size	Pres.	Analysis Request: SM 9223-B-b (E. coli)*	Test Instructions / Comments
1	20200312RHSGR-LDW-BDW	03/12/2020	1707	W	1 / 125 mL	1	✓	See Comments
2	20200312RHSGR-LDW-DUP	03/12/2020	1707	W	1 / 125 mL	1	✓	See Comments
3	20200312RHSGR-LDW-BLK	03/12/2020	1707	W	1 / 125 mL	1	✓	1 quantitray, no dilution
4	20200312RHSGR-BCD	03/12/2020	1600	W	1 / 125 mL	1	✓	See Comments
5	20200312RHSGR-BLC	03/12/2020	1600	W	1 / 125 mL	1	✓	See Comments
6	20200312RHSGR-BRD	03/12/2020	1600	W	1 / 125 mL	1	✓	See Comments
7								
8								
9								
10								

*Second Quantitray with 1:1000 dilution for, six (6) analytical dilution levels, two (2) to two million (2,000,000) MPN/100ml.

	Signature	Print Name	Company / Title	Date / Time
[1] Relinquished By:		Gerald Greene	CWE Director	3/12/20 19:15
[1] Received By:		FEDEX		3/12/20 1913
[2] Relinquished By:				
[2] Received By:				
[3] Relinquished By:				
[3] Received By:				

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: CWE Project: _____

Date Received: 3/12/20 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 1.3 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 0.2 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

_____

_____

_____

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 3/12/20

ENTHALPY ANALYTICAL

Analysis Results for 425830

Jason Pereira
CWE Corporation
1561 E. Orangethorpe Ave
Suite 240
Fullerton, CA 92831

Lab Job #: 425830
Project No: RHSGR_CWE
Location: 14117
Date Received: 03/12/20

Sample ID: 20200312RHSGR-LDW-BDW **Lab ID: 425830-001** **Collected: 03/12/20 17:07**
Matrix: Water

425830-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**15,000**		MPN/100ml	1,000	1000	243239	03/12/20 19:51	03/13/20 16:21	LXH

Sample ID: 20200312RHSGR-LDW-DUP **Lab ID: 425830-002** **Collected: 03/12/20 17:07**
Matrix: Water

425830-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**8,600**		MPN/100ml	1,000	1000	243239	03/12/20 19:51	03/13/20 16:21	LXH

Sample ID: 20200312RHSGR-LDW-BLK **Lab ID: 425830-003** **Collected: 03/12/20 17:07**
Matrix: Water

425830-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	<1.0		MPN/100ml	1.0	1	243239	03/12/20 19:51	03/13/20 16:21	LXH

Sample ID: 20200312RHSGR-BCD **Lab ID: 425830-004** **Collected: 03/12/20 16:00**
Matrix: Water

425830-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**3,100**		MPN/100ml	1,000	1000	243239	03/12/20 19:51	03/13/20 16:21	LXH

Sample ID: 20200312RHSGR-BLC **Lab ID: 425830-005** **Collected: 03/12/20 16:00**
Matrix: Water

425830-005 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**13,000**		MPN/100ml	1,000	1000	243239	03/12/20 19:51	03/13/20 16:21	LXH

Results for any subcontracted analyses are not included in this section.

ENTHALPY ANALYTICAL

Analysis Results for 425830

Sample ID: 20200312RHSGR-BRD	Lab ID: 425830-006	Collected: 03/12/20 16:00
	Matrix: Water	

425830-006 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SM 9223Bb									
Coliform, E. Coli	**12,000**		MPN/100ml	1,000	1000	243239	03/12/20 19:51	03/13/20 16:21	LXH

< Value is less than indicated concentration

Results for any subcontracted analyses are not included in this section.