Project No. S2423-07-01
September 20, 2022

VIA ELECTRONIC MAIL

Ryan Chance, PE
Senior Civil Engineer
City of Folsom
50 Natoma Street
Folsom, CA 95630

Subject: WATER ASSESSMENT
AMERICAN RIVER CANYON DRIVE AND OAK AVENUE PARKWAY
FOLSOM, CALIFORNIA

Mr. Chance:

In accordance with our executed agreement (Geocon Proposal LS-22-211) dated July 10, 2022, Geocon Consultants, Inc. (Geocon) has performed an assessment of water seeping the traffic lanes and grassy areas near the intersection of American River Canyon Drive and Oak Avenue Parkway (the Site) in Folsom, California (Figure 1).

This report describes the Site and pertinent background information for the investigation, the methods and procedures used for collection and laboratory chemical analysis of water samples, presents the results of laboratory analysis of the samples, and provides recommendations for further investigation.

BACKGROUND

According to City of Folsom (the City) representatives, water has reportedly been observed seeping out of the asphalt in the eastern-most lanes and shoulder of American River Canyon Drive just north of Oak Avenue Parkway. The adjoining grassy area to the east is also consistently waterlogged despite the installation of a drainage system in this location capable of capturing approximately 5-10 gallons per minute of water.

Potential sources of the seepage water include:

- a leak from nearby waterlines. San Juan Water District (SJWD) is the water provider for residences and businesses near the Site. SJWD sources their water from the nearby Folsom Reservoir. SJWD staff have reportedly tested the integrity of the nearby water lines and determined there is no leak. Should the source of the water be from leaking water lines, we would expect to detect byproducts of SJWD's water treatment processes (disinfection) include chlorine, trihalomethanes (THM), and haloacetic acids (HAA).
- a leak of untreated nearby surface water including Folsom Lake or the Baldwin Reservoir. Should the source of the water be from nearby surface water, we would expect the water chemistry of the seepage water to be similar to the chemical profile for SJWD surface water (absent the disinfection byproducts) published in the San Juan Water Wholesale Customer Agencies' 2021 Consumer Confidence Report (CCR).

- upwelling of deeper groundwater. Should the source of the water be from upwelling deep groundwater, we would expect the water chemistry of the seepage water to be similar to the chemical profile for Citrus Heights Water District (CHWD) groundwater or Fair Oaks Water District (FOWD) groundwater published in the CCR.

A copy of the CCR, which includes concentration ranges for arsenic, barium, fluoride, nitrate as N, turbidity, lead, copper, TDS, specific conductance, sulfate, chloride, bicarbonate alkalinity, hardness, sodium, calcium, magnesium, chlorine, THMs, and HAAs for the SJWD, CHWD, and FOWD is included as an attachment to this report.

The City requested that samples of the seepage water from the street and grassy area be collected and analyzed to determine if the source of the water. The City intends to use the finding of this assessment to determine the appropriate next steps for mitigating the seeping water.

WATER QUALITY SAMPLE COLLECTION AND ANALYSIS

Pre-field Activities

We performed the following pre-field activities:

- Marked the proposed work areas with white paint and contacted local public utilities to delineate subsurface utilities and conduits via Underground Service Alert North.
- Retained California Laboratory Services (CLS) of Rancho Cordova, California, a California-certified analytical laboratory, to perform chemical analyses of water samples.
- Prepared a Health and Safety Plan for sample collection activities.
- Arranged for the necessary traffic control with the City.

Site Observations

In the northbound lanes of American River Canyon Drive, we observed water seeping from a crack in the asphalt, which resulted in a puddle within the traffic lane approximately 1.5-inches deep (Figure 2).

We intended to collect a water sample from the grassy area adjacent to the northbound lanes of American River Canyon Drive and advanced hand auger borings HA1 though HA3 (Figure 2) to depths of approximately 6-inches each to look for saturated soil. We observed dry soil with no sign of water seepage in the hand auger borings. We observed saturated soil in the grassy area west of American River Canyon Drive (Figure 2). Water was seeping from the grass into a channel drain installed between the grass and the adjoining sidewalk. We estimate that water was flowing from the grass through the channel drain at approximately 0.5 gallons per minute. We did not measure flow precisely with instrumentation.

Sample Collection

On July 20, 2022, we used a push-broom to displace the accumulated puddle of water in the northbound lane of American River Canyon Drive (Figure 2). This puddle of water recharged to its original size in less than 1 minute. We displaced the puddle of water three times to avoid collecting a sample of stagnant water. We collected a sample by pumping water from the puddle into the laboratory-provided containers using a peristaltic pump. We labeled the sample with a unique sample identification (W-Asphalt), the project name and number, date and time of collection, and the sampler's initials and placed it into a cooler with ice for transport under chain-of-custody procedures to CLS.

In the grassy area, we removed the debris cover from a channel drain on the edge of the lawn and the sidewalk (Figure 2). We cleared the plant debris in a 2-foot section of the channel drain and let water flow freely for approximately 5 minutes. We then pumped the water from the channel drain into the laboratory-provided containers using a peristaltic pump. We labeled the sample with a unique sample identification (W-Grass), the project name and number, date and time of collection, and the sampler's initials and placed it into a cooler with ice for transport under chain-of-custody procedures to CLS.

Laboratory Analysis

CLS analyzed the sample for:

- General minerals (alkalinity, calcium, chloride, fluoride, hardness, potassium, methylene blue active substances [MBAS], magnesium, sodium, nitrate as N, specific conductance, sulfate, total dissolved solids [TDS], & pH) by American Public Health Association (APHA)/United States Environmental Protection Agency (USEPA) methods;
- Drinking water metals (aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, vanadium, and zinc) by USEPA Test Method 200 series;
- Total organic carbon by Standard Method (SM) 5310B;
- Total and residual chlorine by SM 4500;
- THMs by EPA Test Method 524/624; and
- HAAs by EPA Test Method 552.

LABORATORY ANALYSIS RESULTS

As shown on Table 1, residual chlorine, THMs, and HAAs were not detected in either sample except for chloroform in W-Grass, which was detected at a concentration 2.3 micrograms per liter (µg/l). The following table lists notable analyte detections in both samples.

Analyte	W-Asphalt	W-Grass	Units
TDS	440	250	mg/l
Calcium	110	27	mg/l
Potassium	20	3.1	mg/l
Sulfate	31	17	mg/l
Sodium	22	18	mg/l
Aluminum	8,100	93	µg/l
Arsenic	7.2	ND	µg/l
Barium	810	ND	µg/l
Boron	120	ND	µg/l
Chromium	16	ND	µg/l
Copper	240	ND	µg/l
Iron	8,600	1,500	µg/l

Analyte	W-Asphalt	W-Grass	Units
Lead	51	ND	µg/l
Manganese	1,600	60	µg/l
Nickel	52	ND	µg/l
Vanadium	70	14	µg/l
Zinc	11,000	ND	µg/l

Notes: µg/l = micrograms per liter, mg/l – milligrams per liter, ND = non-detect

A copy of the laboratory report is attached.

COMPARISON TO AGENCY REPORTED VALUES

We compared our laboratory analysis results to the chemical profiles for SJWD, CHWD, and FOWD published in the CCR. The lack of residual chlorine and HAAs, along with the minimal detection of THMs in the W-Grass sample only, demonstrate that the seepage is unlikely to be from leaking water lines from SJWD. This finding is consistent with the testing conducted by SJWD, which did not identify of any leaks in the local water lines.

The TDS level, general minerals and drinking water metals are appreciably different than the chemical profile for SJWD surface water. Thus, the seepage appears to not be a result of a leak of untreated surface water.

The TDS level and the concentrations of calcium, sodium, chloride, and sulfate are appreciably different than the chemical profile for CHWD and FOWD groundwater. Thus, the seepage appears to not be a result of an upwelling of deep groundwater.

Based on the lack of similarity of the water chemistry to SJWD, CHWD, and FOWD water profiles, we believe that the seepage may be due to the presence of shallow perched groundwater in the area. Slow, shallow migration of the perched groundwater would result in the water chemistry becoming equilibrated with the natural mineral content of the shallow soils and sediments. We interpret the elevated metals concentrations in the W-Asphalt sample as being due to the accretion of automotive chemicals (e.g., from residual motor oil leakage and brake pad dust) at the depression where the water accumulates along the street.

RECOMMENDATIONS

To further evaluate the occurrence of shallow, perched groundwater, we recommend drilling four borings in and adjacent to the seeps (Figure 2) and installing piezometers in the borings to confirm the presence of perched groundwater and monitor its behavior. The purpose of the borings would be to define the lateral extent and thickness of the layer with perched groundwater, which we can use to design potential future mitigation actions.

With your authorization, we will prepare a proposal for drilling, piezometer installation, and water level monitoring that will be submitted under separate cover.

LIMITATIONS

This report has been prepared exclusively for the City. The information contained herein is only valid as of the date of the report and will require an update to reflect additional information obtained.

We did not perform subsurface investigation as part of this study. If variations in conditions are encountered during later activities, they may alter our conclusion, and we should be notified so that we can evaluate those conditions and provide supplemental recommendations.

The conclusions contained in this report have not been verified through subsurface exploration using drilling methods. Changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. Additionally, changes in resource economics, extraction technologies, utilization patterns, or applicable standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this study may be invalidated partially or wholly by changes outside our control. This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed.

Our professional services were performed, our findings obtained, and our conclusions developed in accordance with generally accepted geological principles and practices used in this area at this time. No warranty is given, either express or implied.

We appreciate the opportunity to assist you with this project. Please contact the undersigned if you have any questions or comments regarding our report.

Respectfully Submitted,

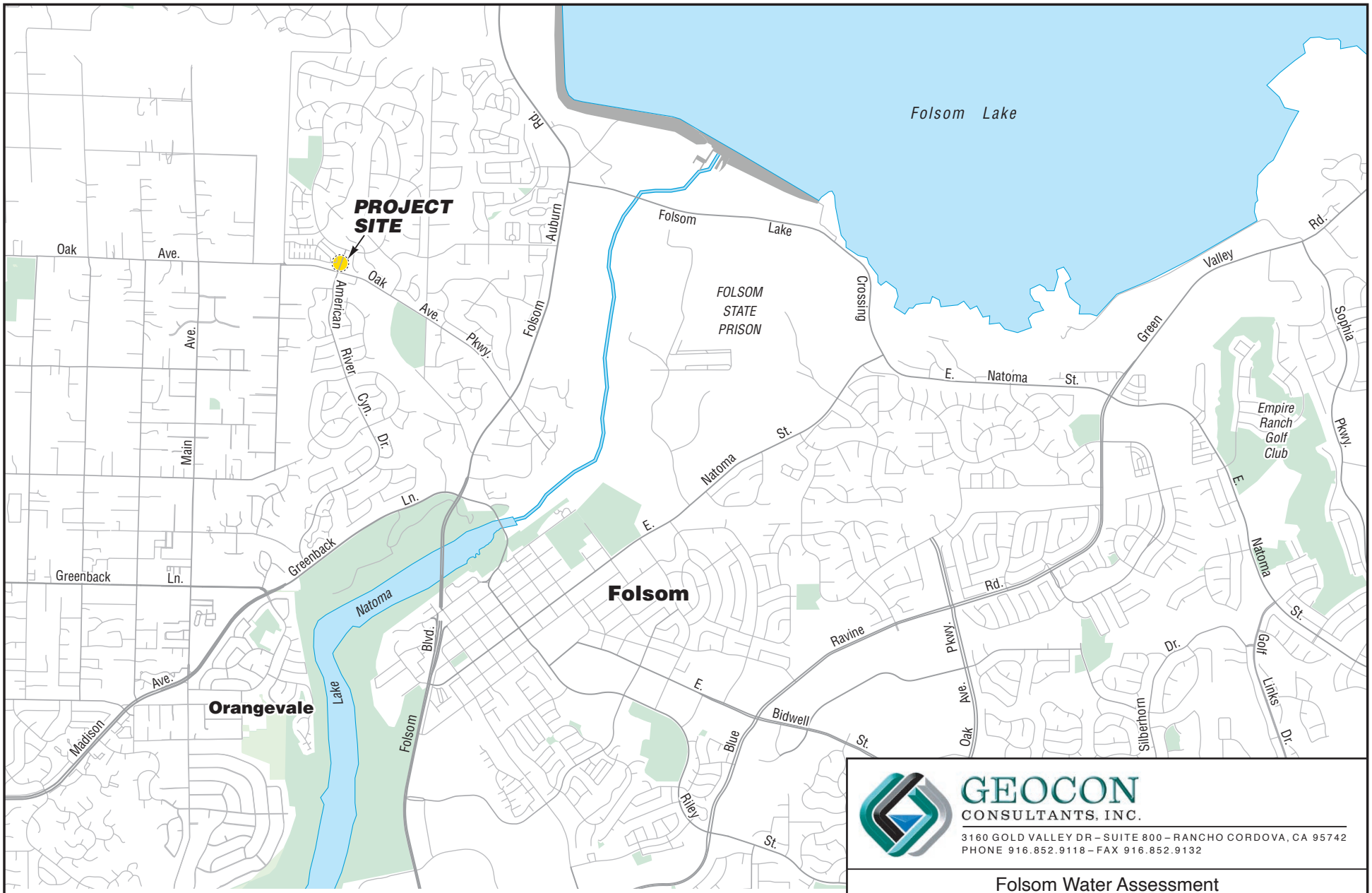
GEOCON CONSULTANTS, INC.

Lauren E. Short, PG
Project Geologist

Andrew Kopania, PhD, PG, ChG
Senior Hydrogeologist

Josh Ewert, PG
Senior Geologist

Attachments: Figure 1, Site Location Map
Figure 2, Site Plan
Table 1, Summary of Laboratory Analysis Results
Laboratory Report with Chain-of-Custody
2021 Consumer Confidence Report



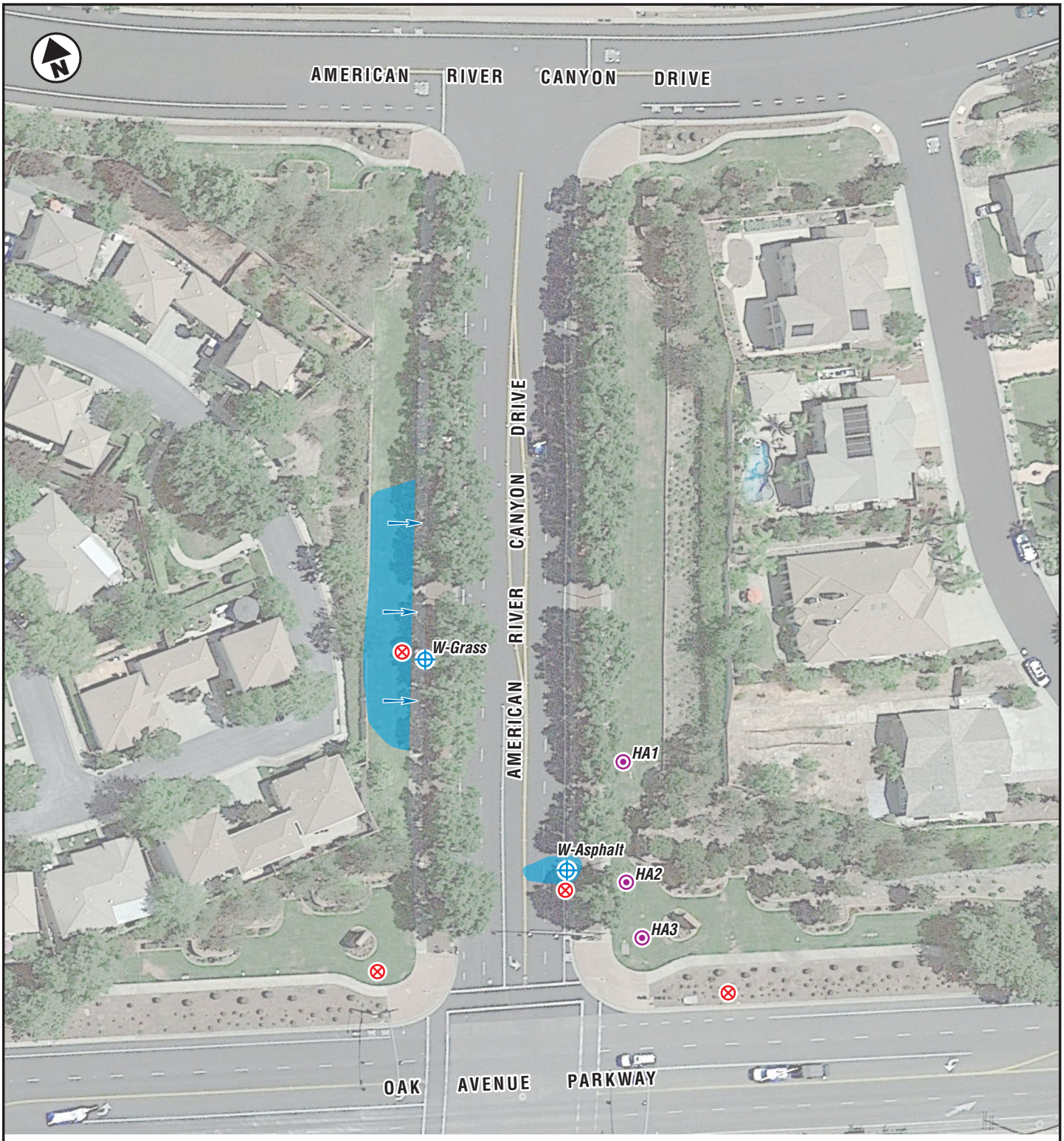
GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR – SUITE 800 – RANCHO CORDOVA, CA 95742
PHONE 916.852.9118 – FAX 916.852.9132

Folsom Water Assessment

American River Canyon Drive and Oak Avenue
Folsom, California

VICINITY MAP

S2423-07-01	September 2022	Figure 1



LEGEND:

- W-Grass — Approximate Water Sample Location
- HA3 — Approximate Hand-Auger Boring Location
- Proposed Boring Location
- Observed Water Seepage
- Observed Seepage Direction

0 80

Scale in Feet

GEOCON CONSULTANTS, INC.
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Folsom Water Assessment

American River Canyon Drive and Oak Avenue
Folsom, California

SITE PLAN

S2423-07-01	September 2022	Figure 2

TABLE 1
SUMMARY OF LABORATORY ANALYSIS RESULTS
AMERICAN RIVER CANYON DRIVE AND OAK AVENUE PARKWAY
FOLSOM, SACRAMENTO COUTY, CALIFORNIA

	Units	W-Asphalt	W-Grass	San Juan Surface Water	Citrus Heights Groundwater	Fair Oaks Groundwater
Aluminum	µg/L	8,100	93	--	--	--
Antimony	µg/L	<4.0	<4.0	--	--	--
Arsenic	µg/L	7.2	<2.0	ND	ND-2.2	ND - 3.3
Barium	µg/L	810	<100	ND	ND-110	ND
Beryllium	µg/L	<1.0	<1.0	--	--	--
Boron	µg/L	120	<100	--	--	--
Cadmium	µg/L	<1.0	<1.0	--	--	--
Chromium	µg/L	16	<10	--	--	--
Copper	µg/L	240	<50	55	83	63
Iron	µg/L	8,600	1,500	--	--	--
Lead	µg/L	51	<5.0	ND	ND	ND
Manganese	µg/L	1600	60	--	--	--
Mercury	µg/L	<1.0	<1.0	--	--	--
Nickel	µg/L	52	<10	--	--	--
Selenium	µg/L	<5.0	<5.0	--	--	--
Silver	µg/L	<10	<10	--	--	--
Thallium	µg/L	<1.0	<1.0	--	--	--
Vanadium	µg/L	70	14	--	--	--
Zinc	µg/L	11,000	<50	--	--	--
Bicarbonate as CaCO3	mg/L	260	110	12-23	130-180	54-100
Calcium	mg/L	110	27	4.5-8.3	24-33	13-22
Carbonate as CaCO3	mg/L	<5.0	<5.0	--	--	--
Chloride	mg/L	27	19	1.8	12-18	3.57
Fluoride	mg/L	0.43	0.31	ND	ND-0.18	ND
Hydroxide as CaCO3	mg/L	<5.0	<5.0	--	--	--
Magnesium	mg/L	62	14	1	12-16	4.8-9.6
Nitrate as N	mg/L	1.2	0.98	ND	1.5-2.9	ND-2.1
pH	std units	7.21	7.17	--	--	--
Potassium	mg/L	20	3.1	--	--	--
Sodium	mg/L	22	18	1.6	16-22	5.3-16
Specific Conductance (EC)	µmhos/cm	450	380	68-110	280-360	120-230
Sulfate as SO4	mg/L	31	17	3.8	8.4-12	3.7-16
Total Alkalinity	mg/L	260	110	--	--	--
Total Dissolved Solids	mg/L	440	250	30	220-260	110-190
Total Hardness as CaCO3	mg/L	530	120	12	110-150	53-94
Total Organic Carbon	mg/L	130	4.9	--	--	--
MBAS as LAS, mol wt 340	mg/L	<1.0	<0.10	--	--	--
Total Chlorine	mg/L	<0.10	<0.10	--	--	--
Residual Chlorine	mg/L	<0.10	<0.10	0.07-1.26	0.14-1.73	0.17-0.86
Bromodichloromethane	µg/L	<5.0	<0.50	--	--	--
Bromoform	µg/L	<5.0	<0.50	--	--	--
Chloroform	µg/L	<5.0	2.3	--	--	--
Dibromochloromethane	µg/L	<5.0	<0.50	--	--	--
Total Trihalomethanes (THM)	µg/L	<5.0	2.3	22-43	ND-61	ND-67

TABLE 1
SUMMARY OF LABORATORY ANALYSIS RESULTS
AMERICAN RIVER CANYON DRIVE AND OAK AVENUE PARKWAY
FOLSOM, SACRAMENTO COUTY, CALIFORNIA

	Units	W-Asphalt	W-Grass	San Juan Surface Water	Citrus Heights Groundwater	Fair Oaks Groundwater
Dibromoacetic Acid	µg/L	<1.0	<1.0	--	--	--
Dichloroacetic Acid		<1.0	<1.0	--	--	--
Monobromoacetic Acid		<1.0	<1.0	--	--	--
Monochloroacetic Acid		<2.0	<2.0	--	--	--
Trichloroacetic Acid		<1.0	<1.0	--	--	--
Total Haloacetic Acids (HAA5)		<1.0	<1.0	0.81-2.21	--	--

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
Sample Date: July 20, 2022
µmhos/cm: micromhos per centimeter
std units: standard units
ND: not detected
--: not reported
Results reported for San Juan Surface Water, Citrus Heights Groundwater, and Fair Oaks Groundwater are from the 2021 Consumer Confidence Report published by San Juan Water Wholesale Customer Agencies
Reported results are ranges except for copper and lead which are reported as 90th percent tiles

CALIFORNIA LABORATORY SERVICES
Committed. Responsive. Flexible.

July 29, 2022

CLS Work Order #: 22G1149
COC #:

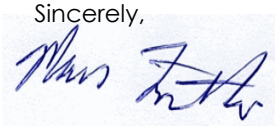
Lauren Short
Geocon Consultants
3160 Gold Valley Dr. Suite #800
Rancho Cordova, CA 95742

Project Name: Folsom Water Assessment

Enclosed are the results of analyses for samples received by the laboratory on 07/20/22 12:05. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



Marc Foster, Ph.D.
Technical Director

CA SWRCB ELAP Accreditation/Registration number 1233

CALIFORNIA LABORATORY SERVICES CHAIN OF CUSTODY

CLS ID. NO. 22G1149 (of)

Report To:

Geocon Consultants

short@geoconinc.com

Project Manager
Lauren Short - short@geoconinc.com

Project Name
Folsom Water Assessment

Sampled By
Lauren Short

Job Description
Determining water chemistry

Site Location
Sacramento, CA

Client Job Number
S2423-07-01

Destination Laboratory

X CLS (916) 638-7301
3249 Fitzgerald Road
Rancho Cordova, CA
95742
www.californialab.com

☐ OTHER

GEOTRACKER

EDF REPORT ☐ YES X NO

GLOBAL ID:

FIELD CONDITIONS:

DATE	TIME	SAMPLE IDENTIFICATION	FIELD ID.	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	General Minerals*	Total Drinking Water Metals EPA 2000 series	Total Organic Carbon SM 5310B	Total and Residual Chlorine	Trihalomethanes by EPA Test Method 524/624	Haloacetic acids by EPA Test Method 552	TURNAROUND TIME IN DAYS 1	2	3	5	SPECIAL INSTRUCTIONS
7/20/22	1115	W-Grass		water	1	Vial		X	X	X	X	X	X				X	Excel EDD
7/20/22	1035	W-Asphalt		water	1	Vial											X	
					1LP - Unp.													
					250 - HNO3													
					125 - Unp.													
																		INVOICE TO:
																		short@geoconinc.com
																		PO#
																		QUOTE#

* alkalinity, calcium, chloride, fluoride, hardness, potassium, MBAS, magnesium, sodium, nitrate, specific conductance, sulfate, total dissolved solids, & pH

SUSPECTED CONSTITUENTS

SAMPLE RETENTION TIME

PRESERVATIVES (1) HCL (3) = COLD (2) HNO_3 (4)= H_2SO_4

RELINQUISHED BY (Signature)	PRINT NAME/COMPANY	DATE/TIME	RECEIVED BY (Signature)	PRINT NAME/COMPANY
[signature]	Lauren E Short Geocon	7/20/22 1205		

RECEIVED AT LAB BY: [signature] **DATE/TIME:** 07/20/22 1205 **CONDITIONS/COMMENTS:** 16.2/15.5

SHIPPED BY: ☐ FED EX ☐ UPS ☐ OTHER _____ **AIR BILL #** _____

Geocon Consultants	Project:	Folsom Water Assessment	
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01	**CLS Work Order #: 22G1149**
Rancho Cordova, CA 95742	Project Manager:	Lauren Short	COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W- Grass (22G1149-01) Water Sampled: 07/20/22 11:15 Received: 07/20/22 12:05									
Bicarbonate as CaCO3	**110**	5.0	mg/L	1	2206249	07/26/22	07/26/22	SM2320B	
Calcium	**27**	1.0	"	"	2206129	07/22/22	07/28/22	EPA 200.7	
Carbonate as CaCO3	ND	5.0	"	"	2206249	07/26/22	07/26/22	SM2320B	
Chloride	**19**	0.50	"	"	2206031	07/20/22	07/20/22	EPA 300.0	
Fluoride	**0.31**	0.10	"	"	"	"	"	"	
Hydroxide as CaCO3	ND	5.0	"	"	2206249	07/26/22	07/26/22	SM2320B	
Magnesium	**14**	1.0	"	"	2206129	07/22/22	07/22/22	EPA 200.7	
MBAS as LAS, mol wt 340	ND	0.10	"	"	2206120	07/22/22	07/22/22	SM5540 C	
Nitrate as N	**0.98**	0.40	"	"	2206031	07/20/22	07/20/22	EPA 300.0	
pH	**7.17**	0.01	pH Units	"	2206040	07/20/22	07/20/22	SM4500-H B	HT-F
Potassium	**3.1**	1.0	mg/L	"	2206129	07/22/22	07/22/22	EPA 200.7	
Sodium	**18**	1.0	"	"	"	"	"	"	
Specific Conductance (EC)	**380**	1.0	µmhos/cm	"	2206137	07/22/22	07/22/22	SM 2510 B-1997	
Sulfate as SO4	**17**	0.50	mg/L	"	2206031	07/20/22	07/20/22	EPA 300.0	
Total Alkalinity	**110**	5.0	"	"	2206249	07/26/22	07/26/22	SM2320B	
Total Chlorine	ND	0.10	"	"	2206313	07/21/22	07/21/22	SM 4500-CL-G	HT-F
Total Dissolved Solids	**250**	10	"	"	2206236	07/26/22	07/27/22	SM2540C	
Total Hardness as CaCO3	**120**	1.0	"	"	2206129	07/22/22	07/25/22	EPA 200.7	
Total Organic Carbon	**4.9**	1.0	"	"	2206119	07/22/22	07/22/22	SM5310B	
W- Asphalt (22G1149-02) Water Sampled: 07/20/22 10:30 Received: 07/20/22 12:05									
Bicarbonate as CaCO3	**260**	5.0	mg/L	1	2206249	07/26/22	07/26/22	SM2320B	
Calcium	**110**	1.0	"	"	2206129	07/22/22	07/28/22	EPA 200.7	
Carbonate as CaCO3	ND	5.0	"	"	2206249	07/26/22	07/26/22	SM2320B	
Chloride	**27**	0.50	"	"	2206031	07/20/22	07/20/22	EPA 300.0	
Fluoride	**0.43**	0.10	"	"	"	"	"	"	
Hydroxide as CaCO3	ND	5.0	"	"	2206249	07/26/22	07/26/22	SM2320B	
Magnesium	**62**	1.0	"	"	2206129	07/22/22	07/22/22	EPA 200.7	
MBAS as LAS, mol wt 340	ND	1.0	"	10	2206120	07/22/22	07/22/22	SM5540 C	QRL-5
Nitrate as N	**1.2**	0.40	"	1	2206031	07/20/22	07/20/22	EPA 300.0	
pH	**7.21**	0.01	pH Units	"	2206040	07/20/22	07/20/22	SM4500-H B	HT-F

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3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01	**CLS Work Order #: 22G1149**
Rancho Cordova, CA 95742	Project Manager:	Lauren Short	COC #:

Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W- Asphalt (22G1149-02) Water Sampled: 07/20/22 10:30 Received: 07/20/22 12:05									
Potassium	**20**	1.0	mg/L	1	2206129	07/22/22	07/22/22	EPA 200.7	
Sodium	**22**	1.0	"	"	"	"	"	"	
Specific Conductance (EC)	**450**	1.0	µmhos/cm	"	2206137	07/22/22	07/22/22	SM 2510 B-1997	
Sulfate as SO4	**31**	0.50	mg/L	"	2206031	07/20/22	07/20/22	EPA 300.0	
Total Alkalinity	**260**	5.0	"	"	2206249	07/26/22	07/26/22	SM2320B	
Total Chlorine	ND	0.10	"	"	2206313	07/21/22	07/21/22	SM 4500-CL-G	HT-F
Total Dissolved Solids	**440**	10	"	"	2206236	07/26/22	07/27/22	SM2540C	
Total Hardness as CaCO3	**530**	1.0	"	"	2206129	07/22/22	07/25/22	EPA 200.7	
Total Organic Carbon	**130**	1.0	"	"	2206119	07/22/22	07/22/22	SM5310B	

Geocon Consultants	Project:	Folsom Water Assessment	
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Rancho Cordova, CA 95742	Project Manager:	Lauren Short	COC #:

Metals (Drinking Water) by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W- Grass (22G1149-01) Water Sampled: 07/20/22 11:15 Received: 07/20/22 12:05									
Aluminum	**93**	50	µg/L	1	2206073	07/21/22	07/22/22	EPA 200.8	
Antimony	ND	4.0	"	"	"	"	"	"	
Arsenic	ND	2.0	"	"	"	"	"	"	
Barium	ND	100	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Boron	ND	100	"	"	"	"	"	"	
Cadmium	ND	1.0	"	"	"	"	"	"	
Chromium	ND	10	"	"	"	"	"	"	
Copper	ND	50	"	"	"	"	"	"	
Iron	**1500**	100	"	"	2206147	07/23/22	07/28/22	EPA 200.7	
Lead	ND	5.0	"	"	2206073	07/21/22	07/22/22	EPA 200.8	
Manganese	**60**	20	"	"	"	"	"	"	
Mercury	ND	1.0	"	"	2206185	07/25/22	07/26/22	EPA 245.1	
Nickel	ND	10	"	"	2206073	07/21/22	07/22/22	EPA 200.8	
Selenium	ND	5.0	"	"	"	"	"	"	
Silver	ND	10	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Vanadium	**14**	3.0	"	"	"	"	"	"	
Zinc	ND	50	"	"	"	"	"	"	
W- Asphalt (22G1149-02) Water Sampled: 07/20/22 10:30 Received: 07/20/22 12:05									
Aluminum	**8100**	50	µg/L	1	2206073	07/21/22	07/22/22	EPA 200.8	
Antimony	ND	4.0	"	"	"	"	"	"	
Arsenic	**7.2**	2.0	"	"	"	"	"	"	
Barium	**810**	100	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Boron	**120**	100	"	"	"	"	"	"	
Cadmium	ND	1.0	"	"	"	"	"	"	
Chromium	**16**	10	"	"	"	"	"	"	
Copper	**240**	50	"	"	"	"	"	"	
Iron	**8600**	100	"	"	2206147	07/23/22	07/28/22	EPA 200.7	

Geocon Consultants	Project:	Folsom Water Assessment	
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01	**CLS Work Order #: 22G1149**
Rancho Cordova, CA 95742	Project Manager:	Lauren Short	COC #:

Metals (Drinking Water) by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W- Asphalt (22G1149-02) Water Sampled: 07/20/22 10:30 Received: 07/20/22 12:05									
Lead	**51**	5.0	µg/L	1	2206073	07/21/22	07/22/22	EPA 200.8	
Manganese	**1600**	20	"	"	"	"	"	"	
Mercury	ND	1.0	"	"	2206185	07/25/22	07/26/22	EPA 245.1	
Nickel	**52**	10	"	"	2206073	07/21/22	07/22/22	EPA 200.8	
Selenium	ND	5.0	"	"	"	"	"	"	
Silver	ND	10	"	"	"	"	"	"	
Thallium	ND	1.0	"	"	"	"	"	"	
Vanadium	**70**	3.0	"	"	"	"	"	"	
Zinc	**11000**	50	"	"	"	"	"	"	

Geocon Consultants	Project:	Folsom Water Assessment	
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01	**CLS Work Order #: 22G1149**
Rancho Cordova, CA 95742	Project Manager:	Lauren Short	COC #:

Microbiological Parameters by APHA Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W- Grass (22G1149-01) Water Sampled: 07/20/22 11:15 Received: 07/20/22 12:05									
Residual Chlorine	ND	0.10	mg/L	1	2206313	07/21/22	07/21/22	SM 4500-CL-G	HT-F
W- Asphalt (22G1149-02) Water Sampled: 07/20/22 10:30 Received: 07/20/22 12:05									
Residual Chlorine	ND	0.10	mg/L	1	2206313	07/21/22	07/21/22	SM 4500-CL-G	HT-F

Geocon Consultants	Project:	Folsom Water Assessment	
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01	**CLS Work Order #: 22G1149**
Rancho Cordova, CA 95742	Project Manager:	Lauren Short	COC #:

Trihalomethanes by EPA Method 524.2

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
W- Grass (22G1149-01) Water Sampled: 07/20/22 11:15 Received: 07/20/22 12:05									
Bromodichloromethane	ND	0.50	µg/L	1	2206202	07/25/22	07/25/22	EPA 524.2	
Bromoform	ND	0.50	"	"	"	"	"	"	
Chloroform	**2.3**	0.50	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Total Trihalomethanes (THM)	**2.3**	0.50	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*86 %*		*70-130*		"	"	"	"	
Surrogate: Toluene-d8		*86 %*		*70-130*		"	"	"	"	
W- Asphalt (22G1149-02) Water Sampled: 07/20/22 10:30 Received: 07/20/22 12:05									**QRL-4, QRL-8**
Bromodichloromethane	ND	5.0	µg/L	10	2206202	07/25/22	07/25/22	EPA 524.2	
Bromoform	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
Total Trihalomethanes (THM)	ND	5.0	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*88 %*		*70-130*		"	"	"	"	
Surrogate: Toluene-d8		*87 %*		*70-130*		"	"	"	"	

Geocon Consultants	Project:	Folsom Water Assessment
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01
Rancho Cordova, CA 95742	Project Manager:	Lauren Short

CLS Work Order #: 22G1149
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2206031 - General Prep										
Blank (2206031-BLK1)				Prepared & Analyzed: 07/20/22						
Chloride	ND	0.50	mg/L							
Sulfate as SO4	ND	0.50	"							
Fluoride	ND	0.10	"							
Nitrate as N	ND	0.40	"							
LCS (2206031-BS1)				Prepared & Analyzed: 07/20/22						
Sulfate as SO4	4.79	0.50	mg/L	5.00		96	80-120			
Fluoride	1.94	0.10	"	2.00		97	80-120			
Chloride	4.54	0.50	"	5.00		91	80-120			
Nitrate as N	1.83	0.40	"	2.00		92	80-120			
LCS Dup (2206031-BSD1)				Prepared & Analyzed: 07/20/22						
Chloride	4.75	0.50	mg/L	5.00		95	80-120	5	20	
Fluoride	1.92	0.10	"	2.00		96	80-120	0.8	20	
Sulfate as SO4	5.00	0.50	"	5.00		100	80-120	4	20	
Nitrate as N	1.92	0.40	"	2.00		96	80-120	5	20	
Matrix Spike (2206031-MS1)		**Source: 22G1072-03**		Prepared & Analyzed: 07/20/22						
Sulfate as SO4	54.0	0.50	mg/L	5.00	38.4	313	80-120			QM-4X
Chloride	54.0	0.50	"	5.00	51.7	46	80-120			QM-4X
Fluoride	2.05	0.10	"	2.00	ND	102	80-120			
Nitrate as N	6.79	0.40	"	2.00	5.02	88	80-120			
Matrix Spike Dup (2206031-MSD1)		**Source: 22G1072-03**		Prepared & Analyzed: 07/20/22						
Chloride	54.1	0.50	mg/L	5.00	51.7	48	80-120	0.1	20	QM-4X
Fluoride	2.05	0.10	"	2.00	ND	103	80-120	0.4	20	
Sulfate as SO4	41.7	0.50	"	5.00	38.4	67	80-120	26	20	QM-4X
Nitrate as N	6.80	0.40	"	2.00	5.02	89	80-120	0.2	20	

Geocon Consultants	Project:	Folsom Water Assessment	
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01	**CLS Work Order #: 22G1149**
Rancho Cordova, CA 95742	Project Manager:	Lauren Short	COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2206040 - General Preparation										
Duplicate (2206040-DUP1)		**Source: 22G1064-01**		Prepared & Analyzed: 07/20/22						
pH	7.10	0.01	pH Units		7.10			0.00	20	
Batch 2206119 - General Prep										
Blank (2206119-BLK1)				Prepared & Analyzed: 07/22/22						
Total Organic Carbon	ND	1.0	mg/L							
LCS (2206119-BS1)				Prepared & Analyzed: 07/22/22						
Total Organic Carbon	10.7	1.0	mg/L	10.0		107	75-125			
LCS Dup (2206119-BSD1)				Prepared & Analyzed: 07/22/22						
Total Organic Carbon	10.6	1.0	mg/L	10.0		106	75-125	0.8	25	
Matrix Spike (2206119-MS1)		**Source: 22G1094-01**		Prepared & Analyzed: 07/22/22						
Total Organic Carbon	12.4	1.0	mg/L	10.0	2.53	99	75-125			
Matrix Spike Dup (2206119-MSD1)		**Source: 22G1094-01**		Prepared & Analyzed: 07/22/22						
Total Organic Carbon	12.4	1.0	mg/L	10.0	2.53	98	75-125	0.3	25	
Batch 2206120 - General Preparation										
Blank (2206120-BLK1)				Prepared & Analyzed: 07/22/22						
MBAS as LAS, mol wt 340	ND	0.10	mg/L							
LCS (2206120-BS1)				Prepared & Analyzed: 07/22/22						
MBAS as LAS, mol wt 340	0.422	0.10	mg/L	0.500		84	80-120			

Geocon Consultants	Project:	Folsom Water Assessment
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01
Rancho Cordova, CA 95742	Project Manager:	Lauren Short

CLS Work Order #: 22G1149
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2206120 - General Preparation										
LCS Dup (2206120-BSD1)				Prepared & Analyzed: 07/22/22						
MBAS as LAS, mol wt 340	0.431	0.10	mg/L	0.500		86	80-120	2	20	
Matrix Spike (2206120-MS1)		Source: 22G1265-01		Prepared & Analyzed: 07/22/22						
MBAS as LAS, mol wt 340	0.461	0.10	mg/L	0.500	0.0860	75	75-125			
Matrix Spike Dup (2206120-MSD1)		Source: 22G1265-01		Prepared & Analyzed: 07/22/22						
MBAS as LAS, mol wt 340	0.455	0.10	mg/L	0.500	0.0860	74	75-125	1	25	QM-7
Batch 2206129 - EPA 200 No Digestion										
Blank (2206129-BLK1)				Prepared: 07/22/22 Analyzed: 07/25/22						
Total Hardness as CaCO3	ND	1.0	mg/L							
Calcium	ND	1.0	"							
Hardness as CaCO3	ND	1.0	"							
Magnesium	ND	1.0	"							
Potassium	ND	1.0	"							
Sodium	ND	1.0	"							
LCS (2206129-BS1)				Prepared: 07/22/22 Analyzed: 07/25/22						
Total Hardness as CaCO3	32.8	1.0	mg/L	33.1		99	85-115			
Calcium	4.65	1.0	"	5.00		93	85-115			
Magnesium	4.70	1.0	"	5.00		94	85-115			
Potassium	4.59	1.0	"	5.00		92	85-115			
Sodium	4.61	1.0	"	5.00		92	85-115			
Matrix Spike (2206129-MS1)		Source: 22G0855-01		Prepared: 07/22/22 Analyzed: 07/25/22						
Total Hardness as CaCO3	246	1.0	mg/L	33.1	213	98	70-130			
Calcium	34.7	1.0	"	5.00	30.3	88	70-130			
Magnesium	37.4	1.0	"	5.00	33.6	76	70-130			
Potassium	14.9	1.0	"	5.00	9.99	98	70-130			
Sodium	91.2	1.0	"	5.00	88.0	63	70-130			QM-7

Geocon Consultants	Project:	Folsom Water Assessment
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01
Rancho Cordova, CA 95742	Project Manager:	Lauren Short

CLS Work Order #: 22G1149
COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2206129 - EPA 200 No Digestion										
Matrix Spike (2206129-MS2)	**Source: 22G1015-01RE1**			Prepared: 07/22/22 Analyzed: 07/25/22						
Total Hardness as CaCO3	53.4	1.0	mg/L	33.1		161	70-130			QM-7
Calcium	7.55	1.0	"	5.00	3.79	75	70-130			
Magnesium	7.26	1.0	"	5.00	3.05	84	70-130			
Potassium	5.57	1.0	"	5.00	1.01	91	70-130			
Sodium	29.8	1.0	"	5.00	25.1	94	70-130			
Batch 2206137 - General Prep										
Blank (2206137-BLK1)				Prepared & Analyzed: 07/22/22						
Specific Conductance (EC)	ND	1.0	µmhos/cm							
Duplicate (2206137-DUP1)	**Source: 22G1266-01**			Prepared & Analyzed: 07/22/22						
Specific Conductance (EC)	167	1.0	µmhos/cm		161			3.66	20	
Batch 2206236 - General Preparation										
Blank (2206236-BLK1)				Prepared: 07/26/22 Analyzed: 07/27/22						
Total Dissolved Solids	ND	10	mg/L							
Duplicate (2206236-DUP1)	**Source: 22G1149-01**			Prepared: 07/26/22 Analyzed: 07/27/22						
Total Dissolved Solids	252	10	mg/L		245			3	20	
Batch 2206249 - General Preparation										
Blank (2206249-BLK1)				Prepared & Analyzed: 07/26/22						
Total Alkalinity	ND	5.0	mg/L							
Bicarbonate as CaCO3	ND	5.0	"							
Carbonate as CaCO3	ND	5.0	"							
Hydroxide as CaCO3	ND	5.0	"							

Geocon Consultants	Project:	Folsom Water Assessment	
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01	**CLS Work Order #: 22G1149**
Rancho Cordova, CA 95742	Project Manager:	Lauren Short	COC #:

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2206249 - General Preparation										
Duplicate (2206249-DUP1)		**Source: 22G1266-01**		Prepared & Analyzed: 07/26/22						
Total Alkalinity	73.0	5.0	mg/L		72.0			1	20	
Bicarbonate as CaCO3	73.0	5.0	"		72.0			1	20	
Carbonate as CaCO3	ND	5.0	"		ND				20	
Hydroxide as CaCO3	ND	5.0	"		ND				20	

Geocon Consultants	Project:	Folsom Water Assessment
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01
Rancho Cordova, CA 95742	Project Manager:	Lauren Short

CLS Work Order #: 22G1149
COC #:

Metals (Drinking Water) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2206073 - EPA 200 Series										
Blank (2206073-BLK1)				Prepared: 07/21/22 Analyzed: 07/22/22						
Aluminum	ND	50	µg/L							
Antimony	ND	4.0	"							
Arsenic	ND	2.0	"							
Barium	ND	100	"							
Beryllium	ND	1.0	"							
Boron	ND	100	"							
Cadmium	ND	1.0	"							
Chromium	ND	10	"							
Copper	ND	50	"							
Lead	ND	5.0	"							
Manganese	ND	20	"							
Nickel	ND	10	"							
Selenium	ND	5.0	"							
Silver	ND	10	"							
Vanadium	ND	3.0	"							
Thallium	ND	1.0	"							
Zinc	ND	50	"							
LCS (2206073-BS1)				Prepared: 07/21/22 Analyzed: 07/22/22						
Aluminum	437	50	µg/L	500		87	85-115			
Antimony	86.7	4.0	"	100		87	85-115			
Arsenic	88.4	2.0	"	100		88	85-115			
Barium	90.1	100	"	100		90	85-115			
Beryllium	88.7	1.0	"	100		89	85-115			
Boron	582	100	"	500		116	85-115			QM-1
Cadmium	87.9	1.0	"	100		88	85-115			
Chromium	90.3	10	"	100		90	85-115			
Copper	91.6	50	"	100		92	85-115			
Lead	87.0	5.0	"	100		87	85-115			
Manganese	92.0	20	"	100		92	85-115			
Nickel	90.8	10	"	100		91	85-115			
Selenium	94.1	5.0	"	100		94	85-115			

Geocon Consultants	Project:	Folsom Water Assessment
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01
Rancho Cordova, CA 95742	Project Manager:	Lauren Short

CLS Work Order #: 22G1149
COC #:

Metals (Drinking Water) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2206073 - EPA 200 Series										
LCS (2206073-BS1)				Prepared: 07/21/22 Analyzed: 07/22/22						
Silver	94.5	10	µg/L	100		95	85-115			
Vanadium	93.5	3.0	"	100		94	85-115			
Thallium	88.4	1.0	"	100		88	85-115			
Zinc	88.2	50	"	100		88	85-115			
Matrix Spike (2206073-MS1)	**Source: 22G1139-01**			Prepared: 07/21/22 Analyzed: 07/22/22						
Aluminum	464	50	µg/L	500	ND	93	70-130			
Antimony	91.1	4.0	"	100	ND	91	70-130			
Arsenic	85.5	2.0	"	100	1.27	84	70-130			
Barium	110	100	"	100	14.2	96	70-130			
Beryllium	92.7	1.0	"	100	ND	93	70-130			
Boron	623	100	"	500	175	90	70-130			
Cadmium	91.7	1.0	"	100	ND	92	70-130			
Chromium	87.5	10	"	100	0.607	87	70-130			
Copper	121	50	"	100	32.9	88	70-130			
Lead	87.3	5.0	"	100	0.742	87	70-130			
Manganese	87.6	20	"	100	ND	88	70-130			
Nickel	87.6	10	"	100	1.27	86	70-130			
Selenium	92.0	5.0	"	100	2.73	89	70-130			
Silver	97.7	10	"	100	ND	98	70-130			
Vanadium	91.2	3.0	"	100	1.12	90	70-130			
Thallium	88.7	1.0	"	100	ND	89	70-130			
Zinc	129	50	"	100	40.0	89	70-130			
Matrix Spike (2206073-MS2)	**Source: 22G1200-03**			Prepared: 07/21/22 Analyzed: 07/22/22						
Aluminum	437	50	µg/L	500	ND	87	70-130			
Antimony	88.3	4.0	"	100	ND	88	70-130			
Arsenic	85.0	2.0	"	100	0.736	84	70-130			
Barium	143	100	"	100	50.4	93	70-130			
Beryllium	96.5	1.0	"	100	ND	97	70-130			
Boron	640	100	"	500	131	102	70-130			
Cadmium	90.3	1.0	"	100	ND	90	70-130			

Geocon Consultants	Project:	Folsom Water Assessment
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01
Rancho Cordova, CA 95742	Project Manager:	Lauren Short

CLS Work Order #: 22G1149
COC #:

Metals (Drinking Water) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2206073 - EPA 200 Series										
Matrix Spike (2206073-MS2)	**Source: 22G1200-03**			Prepared: 07/21/22 Analyzed: 07/22/22						
Chromium	90.6	10	µg/L	100	3.46	87	70-130			
Copper	87.9	50	"	100	ND	88	70-130			
Lead	86.2	5.0	"	100	ND	86	70-130			
Manganese	88.2	20	"	100	ND	88	70-130			
Nickel	86.6	10	"	100	ND	87	70-130			
Selenium	88.6	5.0	"	100	2.50	86	70-130			
Silver	95.2	10	"	100	ND	95	70-130			
Vanadium	97.7	3.0	"	100	7.42	90	70-130			
Thallium	87.7	1.0	"	100	ND	88	70-130			
Zinc	83.8	50	"	100	ND	84	70-130			
Batch 2206147 - EPA 200 Series										
Blank (2206147-BLK1)				Prepared: 07/23/22 Analyzed: 07/27/22						
Iron	ND	100	µg/L							
LCS (2206147-BS1)				Prepared: 07/23/22 Analyzed: 07/28/22						
Iron	975	100	µg/L	500		195	85-115			QM-1
Matrix Spike (2206147-MS1)	**Source: 22G1156-01**			Prepared: 07/23/22 Analyzed: 07/28/22						
Iron	2090	100	µg/L	500	1720	75	70-130			
Matrix Spike (2206147-MS2)	**Source: 22G1266-01**			Prepared: 07/23/22 Analyzed: 07/27/22						
Iron	525	100	µg/L	500	80.0	89	70-130			
Batch 2206185 - EPA 7470A										
Blank (2206185-BLK1)				Prepared: 07/25/22 Analyzed: 07/26/22						
Mercury	ND	1.0	µg/L							

Geocon Consultants	Project:	Folsom Water Assessment	
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01	**CLS Work Order #: 22G1149**
Rancho Cordova, CA 95742	Project Manager:	Lauren Short	COC #:

Metals (Drinking Water) by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2206185 - EPA 7470A										
LCS (2206185-BS1)				Prepared: 07/25/22 Analyzed: 07/26/22						
Mercury	5.42	1.0	µg/L	5.00		108	85-115			
Matrix Spike (2206185-MS1)	**Source: 22G1238-01**			Prepared: 07/25/22 Analyzed: 07/26/22						
Mercury	5.32	1.0	µg/L	5.00	0.362	99	70-130			
Matrix Spike Dup (2206185-MSD1)	**Source: 22G1238-01**			Prepared: 07/25/22 Analyzed: 07/26/22						
Mercury	4.59	1.0	µg/L	5.00	0.362	85	70-130	15	25	

Geocon Consultants	Project:	Folsom Water Assessment
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01
Rancho Cordova, CA 95742	Project Manager:	Lauren Short

CLS Work Order #: 22G1149
COC #:

Trihalomethanes by EPA Method 524.2 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2206202 - EPA 3510B GCMS										
Blank (2206202-BLK1)				Prepared & Analyzed: 07/25/22						
Bromodichloromethane	ND	0.50	µg/L							
Bromoform	ND	0.50	"							
Chloroform	ND	0.50	"							
Dibromochloromethane	ND	0.50	"							
Total Trihalomethanes (THM)	ND	0.50	"							
Surrogate: 1,2-Dichloroethane-d4	*8.15*		*"*	*10.0*		*82*	*70-130*			
Surrogate: Toluene-d8	*8.57*		*"*	*10.0*		*86*	*70-130*			
LCS (2206202-BS1)				Prepared & Analyzed: 07/25/22						
Bromodichloromethane	18.1	0.50	µg/L	20.0		91	70-130			
Bromoform	19.4	0.50	"	20.0		97	70-130			
Chloroform	20.2	0.50	"	20.0		101	70-130			
Dibromochloromethane	18.4	0.50	"	20.0		92	70-130			
Surrogate: 1,2-Dichloroethane-d4	*11.3*		*"*	*10.0*		*113*	*70-130*			
Surrogate: Toluene-d8	*10.1*		*"*	*10.0*		*101*	*70-130*			
LCS Dup (2206202-BSD1)				Prepared & Analyzed: 07/25/22						
Bromodichloromethane	18.0	0.50	µg/L	20.0		90	70-130	0.7	30	
Bromoform	20.0	0.50	"	20.0		100	70-130	3	30	
Chloroform	20.0	0.50	"	20.0		100	70-130	1	30	
Dibromochloromethane	17.1	0.50	"	20.0		86	70-130	7	30	
Surrogate: 1,2-Dichloroethane-d4	*9.10*		*"*	*10.0*		*91*	*70-130*			
Surrogate: Toluene-d8	*8.90*		*"*	*10.0*		*89*	*70-130*			

Geocon Consultants	Project:	Folsom Water Assessment	
3160 Gold Valley Dr. Suite #800	Project Number:	S2423-07-01	**CLS Work Order #: 22G1149**
Rancho Cordova, CA 95742	Project Manager:	Lauren Short	COC #:

Notes and Definitions

QRL-8	The extract of this sample was dark and/or oily. Therefore, the sample was analyzed with a dilution and the reporting limit was raised for all target compounds.
QRL-5	The sample was diluted due to the presence of high levels of non-target analytes or matrix interference resulting in elevated reporting limits.
QRL-4	The reporting limits for this analysis are elevated due to sample foaming.
QM-7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS and/or LCSD recovery.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QM-1	The spike recovery was outside acceptance limits for the LCS or LCSD. The batch was accepted based on acceptable MS/MSD recoveries & RPD's.
HT-F	This is a field test method and it is performed in the lab outside holding time.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit (or method detection limit when specified)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Clinical Laboratory of San Bernardino, Inc.

CLS Labs	Project: Haloacetic Acids	Work Order: 22G2081
3249 Fitzgerald Rd.	Sub Project: 22G1149	Received: 07/22/22 09:50
Rancho Cordova CA, 95742	Project Manager: Mark Smith	Reported: 07/26/22

W- Grass **22G2081-01 (Water)** **Sample Date:** 07/20/22 11:15 **Sampler:** Not Listed

Analyte	Method	Result	Units	Rep. Limit	MCL	Prepared	Analyzed	Batch	Qualifier
Haloacetic Acids Analyses									
Dibromoacetic Acid	EPA 552.2	ND	ug/L	1.0		07/25/22	07/25/22	2231001	
Dichloroacetic Acid	EPA 552.2	ND	ug/L	1.0		07/25/22	07/25/22	2231001	
Monobromoacetic Acid	EPA 552.2	ND	ug/L	1.0		07/25/22	07/25/22	2231001	
Monochloroacetic Acid	EPA 552.2	ND	ug/L	2.0		07/25/22	07/25/22	2231001	
Trichloroacetic Acid	EPA 552.2	ND	ug/L	1.0		07/25/22	07/25/22	2231001	
Total Haloacetic Acids (HAA5)	EPA 552.2	ND	ug/L	1.0	60	07/25/22	07/25/22	2231001	
Surrogate: 2,3-Dibromopropionic Acid	*EPA 552.2*	*77 %*				*07/25/22*	*07/25/22*	*2231001*	

W- Asphalt **22G2081-02 (Water)** **Sample Date:** 07/20/22 10:30 **Sampler:** Not Listed

Analyte	Method	Result	Units	Rep. Limit	MCL	Prepared	Analyzed	Batch	Qualifier
Haloacetic Acids Analyses									
Dibromoacetic Acid	EPA 552.2	ND	ug/L	1.0		07/25/22	07/25/22	2231001	
Dichloroacetic Acid	EPA 552.2	ND	ug/L	1.0		07/25/22	07/25/22	2231001	
Monobromoacetic Acid	EPA 552.2	ND	ug/L	1.0		07/25/22	07/25/22	2231001	
Monochloroacetic Acid	EPA 552.2	ND	ug/L	2.0		07/25/22	07/25/22	2231001	
Trichloroacetic Acid	EPA 552.2	ND	ug/L	1.0		07/25/22	07/25/22	2231001	
Total Haloacetic Acids (HAA5)	EPA 552.2	ND	ug/L	1.0	60	07/25/22	07/25/22	2231001	
Surrogate: 2,3-Dibromopropionic Acid	*EPA 552.2*	*50 %*				*07/25/22*	*07/25/22*	*2231001*	QM-08

QM-08 The surrogate recovery was outside acceptance limits for this sample due to probable matrix interference.

ND Analyte NOT DETECTED at or above the reporting limit

Stu Styles

Client Services Manager

Post Office Box 329 San Bernardino, CA 92402 (909) 825-7693 Fax (909) 825-7696 ELAP Number 1088

CLS Labs	Project: Haloacetic Acids	Work Order: 22G2081
3249 Fitzgerald Rd.	Sub Project: 22G1149	Received: 07/22/22 09:50
Rancho Cordova CA, 95742	Project Manager: Mark Smith	Reported: 07/26/22

Haloacetic Acids Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%Rec	%Rec Limits	RPD	RPD Limit	Qualifier
Batch 2231001 **Analyst: DP**										
Blank (2231001-BLK1)				Prepared & Analyzed: 07/25/22						
Dibromoacetic Acid	ND	1.0	ug/L							
Dichloroacetic Acid	ND	1.0	ug/L							
Monobromoacetic Acid	ND	1.0	ug/L							
Monochloroacetic Acid	ND	2.0	ug/L							
Trichloroacetic Acid	ND	1.0	ug/L							
Surrogate: 2,3-Dibromopropionic Acid	*7.83*		ug/L	*10*		*78*	*70-130*			
Blank (2231001-BLK2)				Prepared & Analyzed: 07/25/22						
Dibromoacetic Acid	ND	1.0	ug/L							
Dichloroacetic Acid	ND	1.0	ug/L							
Monobromoacetic Acid	ND	1.0	ug/L							
Monochloroacetic Acid	ND	2.0	ug/L							
Trichloroacetic Acid	ND	1.0	ug/L							
Surrogate: 2,3-Dibromopropionic Acid	*10.0*		ug/L	*10*		*100*	*70-130*			
LCS (2231001-BS1)				Prepared & Analyzed: 07/25/22						
Dibromoacetic Acid	4.14	1.0	ug/L	5.0		83	70-130			
Dichloroacetic Acid	4.67	1.0	ug/L	5.0		93	70-130			
Monobromoacetic Acid	3.95	1.0	ug/L	5.0		79	70-130			
Monochloroacetic Acid	5.54	2.0	ug/L	5.0		111	70-130			
Trichloroacetic Acid	3.51	1.0	ug/L	5.0		70	70-130			
Surrogate: 2,3-Dibromopropionic Acid	*8.45*		ug/L	*10*		*85*	*70-130*			
LCS (2231001-BS2)				Prepared & Analyzed: 07/25/22						
Dibromoacetic Acid	8.18	1.0	ug/L	10		82	70-130			
Dichloroacetic Acid	9.70	1.0	ug/L	10		97	70-130			
Monobromoacetic Acid	9.23	1.0	ug/L	10		92	70-130			
Monochloroacetic Acid	10.2	2.0	ug/L	10		102	70-130			
Trichloroacetic Acid	7.36	1.0	ug/L	10		74	70-130			
Surrogate: 2,3-Dibromopropionic Acid	*8.29*		ug/L	*10*		*83*	*70-130*			

Post Office Box 329 San Bernardino, CA 92402 (909) 825-7693 Fax (909) 825-7696 ELAP Number 1088

CLS Labs	Project: Haloacetic Acids	Work Order: 22G2081
3249 Fitzgerald Rd.	Sub Project: 22G1149	Received: 07/22/22 09:50
Rancho Cordova CA, 95742	Project Manager: Mark Smith	Reported: 07/26/22

Haloacetic Acids Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%Rec	%Rec Limits	RPD	RPD Limit	Qualifier
Batch 2231001 **Analyst: DP**										
Matrix Spike (2231001-MS1)	**Source: 22G2081-01**			Prepared & Analyzed: 07/25/22						
Dibromoacetic Acid	4.2	1.0	ug/L	5.0	ND	85	70-130			
Dichloroacetic Acid	5.1	1.0	ug/L	5.0	0.2	98	70-130			
Monobromoacetic Acid	4.7	1.0	ug/L	5.0	ND	94	70-130			
Monochloroacetic Acid	5.2	2.0	ug/L	5.0	ND	103	70-130			
Trichloroacetic Acid	5.9	1.0	ug/L	5.0	0.3	112	70-130			
Surrogate: 2,3-Dibromopropionic Acid	*8.07*		ug/L	*10*		*81*	*70-130*			
Matrix Spike (2231001-MS2)	**Source: 22G2082-01**			Prepared & Analyzed: 07/25/22						
Dibromoacetic Acid	4.1	1.0	ug/L	5.0	ND	81	70-130			
Dichloroacetic Acid	9.9	1.0	ug/L	5.0	4.5	108	70-130			
Monobromoacetic Acid	4.6	1.0	ug/L	5.0	ND	92	70-130			
Monochloroacetic Acid	5.3	2.0	ug/L	5.0	ND	105	70-130			
Trichloroacetic Acid	13.7	1.0	ug/L	5.0	9.7	80	70-130			
Surrogate: 2,3-Dibromopropionic Acid	*8.29*		ug/L	*10*		*83*	*70-130*			

QM-08 The surrogate recovery was outside acceptance limits for this sample due to probable matrix interference.

ND Analyte NOT DETECTED at or above the reporting limit

Stu Styles

Client Services Manager

Post Office Box 329 San Bernardino, CA 92402 (909) 825-7693 Fax (909) 825-7696 ELAP Number 1088

SUBCONTRACT ORDER

22G1149

22G2081

SENDING LABORATORY:

CLS Labs
3249 Fitzgerald Rd.
Rancho Cordova, CA 95742
Phone: 916-638-7301
Fax: 916-638-4510
Project Manager: Mark Smith

[redacted]

RECEIVING LABORATORY:

Clinica [illegible] San Bernardino
21881 Ba[illegible] Road
Grand Terrace, CA 92324
Phone [illegible] 825-7693
Fax: [illegible] 825-7696

Analysis	TAT	Due	Expires	Laboratory ID	Sample Date	Received	Matrix
552.2 HAA SUB	5	07/27/22 12:00	[illegible]	22G1149-[illegible]	[illegible] 11:15	07/20/22 12:05	Water

Client sample ID: W- Grass [redacted]:
Laboratory sample ID: 22G1149-01
Please use client sample ID on all reports

Containers Supplied:
Vial - Ammonium Chlorid Vial - Ammonium Chlorid Vial - Ammonium Chlorid

552.2 HAA SUB	5	07/27/22 12:00	[illegible]	22G1149-02	[illegible] 10:30	07/20/22 12:05	Water

Client sample ID: W- Asphalt [redacted]:
Laboratory sample ID: 22G1149-02
Please use client sample ID on all reports

Containers Supplied:
Vial - Ammonium Chlorid Vial - Ammonium Chlorid Vial - Ammonium Chlorid

0.9°

Relinquished By	7/21/22 Date	BD Bridget Dunn CLSB	7-22-22 Date	0950
Relinquished By	Date	Received By	Date	
UPS	13 9957 3049			
Shipped By	Airbill Number			Page 1 of 1

2021 CONSUMER CONFIDENCE REPORT

This report is published by the San Juan Wholesale Customer Agencies: San Juan Water District, Citrus Heights Water District, Fair Oaks Water District and Orange Vale Water Company. San Juan Water District provides reliable, high-quality water supplies to our customers. We serve nearly 151,000 customers in our retail and wholesale service areas throughout Sacramento and Placer counties. We test our surface water, which comes from the American River watershed, and our local groundwater for microbiological and chemical quality.

The U.S. Environmental Protection Agency and the State Water Resources Control Board maintain strict water quality standards designed to protect customers from waterborne disease organisms and harmful chemicals. As a public water agency, we are required by the USEPA to provide you with an annual Consumer Confidence Report.

This report provides you with information about drinking water quality and how we comply with drinking water quality standards. As your water provider, we are proud to report this year's CCR concludes that, once again, **your drinking water meets all federal and state drinking water standards.**

WHERE DOES YOUR WATER COME FROM?

Water from the Agencies comes from two sources: treated surface water and groundwater. San Juan Water District diverts and treats surface water from Folsom Lake. This treated water is then distributed to the Agencies. Orange Vale Water Company and San Juan Water District receive 100 percent of their supply from treated surface water. If you are a consumer of Citrus Heights or Fair Oaks Water Districts, your water is a mixture of treated surface water from San Juan Water District and groundwater from local wells.

SJWD – 100% surface water
OVWC – 100% surface water
CHWD – 64% surface water, 36% groundwater
FOWD – 67% surface water, 33% groundwater

Source water assessments have been conducted for all the water sources to enable the Agencies to understand the activities that have the greatest potential for contaminating the drinking water supplies. The groundwater sources were assessed in 2002 and the surface water source was evaluated in 2001. New wells for Citrus Heights Water District were assessed in 2008, 2009, and 2015. A new well for Fair Oaks Water District was assessed in 2014. These assessments were conducted in accordance with State Water Board guidelines and copies of the complete assessments are available for review at the respective agency offices.

San Juan Water District conducted the evaluation of the Folsom Lake source. It was found to be most vulnerable to potential contamination from the Folsom Lake State Recreation Area facilities, high-density housing and associated activities such as sewer and septic systems and fertilizer, pesticide and herbicide application, as well as illegal activities and dumping. In addition, San Juan Water District conducts a watershed sanitary survey update every five years for the Folsom Lake source. This survey evaluates the water quality and potential contaminating activities in the watershed to ensure adequate treatment is provided and water quality regulations have been met. The most recent update was completed in December 2018. The source water is typically treated using conventional treatment with filtration and disinfection that is designed to remove many contaminants. Again this year, your water meets all federal and state drinking water standards.

Citrus Heights and Fair Oaks water districts conducted assessments of their local groundwater wells. It was found that all the wells are vulnerable to commercial urban activities, such as active and historic gas stations, dry cleaners, leaking underground storage tanks, known contaminant plumes, automobile repair shops, and sewer collection systems, none of which are associated with any detected contaminants. One well for Fair Oaks Water District was found to be vulnerable to irrigation, associated with low level detects of nitrate.

Although Orange Vale Water Company does not currently utilize available local groundwater, assessments found that wells within their service area would be most vulnerable to rural grazing activities.

WHAT'S IN YOUR WATER?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in the source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

A NOTE FOR SENSITIVE POPULATIONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

GENERAL INFORMATION ON LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The San Juan Family Agencies are responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at **www.epa.gov/lead**.

The San Juan Family Agencies also conducts lead tap sampling in schools if requested. No schools requested lead tap sampling in 2021.

KEY TO ABBREVIATIONS

PPB	parts per billion or micrograms per liter (µg/L)
PPM	parts per million or milligrams per liter (mg/L)
pCi/L	picocuries per liter
NTU	nephelometric turbidity units
µS/CM	microsiemens per centimeter
ND	not detected
NR	not required
N/A	not applicable

WATER QUALITY DEFINITIONS

Maximum Contaminant Level (MCL) — The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Public Health Goal (PHG) — The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal (MCLG) — The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL) — The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) — The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standard (PDWS) — MCLs, MRDLs and Treatment Techniques (TT) for contaminants that affect health, along with their monitoring and reporting requirements.

Treatment Technique (TT) — A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL) — The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Notification Level (NL) — Health-based advisory level set by the State Water Board for constituents with no MCL. This is not an enforceable standard, although requirements and recommendations may apply if detected above this level.

UNREGULATED CONTAMINANT MONITORING RULE (UCMR) RESULTS

USEPA requires public water systems to collect data for unregulated constituents in drinking water supplies under the Unregulated Contaminant Monitoring Rule program. Currently, these constituents have no drinking water standards but may be regulated in the future. The fourth round (UCMR4) was conducted from 2018 – 2020.

More information on the UCMR4 round can be found at **www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule**. Fair Oaks Water District was required to monitor in 2018, while San Juan Water District, Citrus Heights Water District, and Orange Vale Water Company conducted sampling in 2019. Several constituents were detected, none at any level of human health concern.

Constituent	Range (ug/L)	Average (ug/L)	Human Health Advisory	Potential Sources
Manganese	ND – 1.9 [1] ND – 3.24 [2] 1.8 – 9.92 [3] 0.56 – 4.9 [4]	1.9 [1] 1.05 [2] 3.81 [3] 2.72 [4]	USEPA Lifetime Health Advisory - 300 ug/L State Board Notification Level – 500 ug/L	Naturally-occurring metal
HAA5	ND - 25 [1] 18.97 – 31.6 [2] 19.46 – 21.22 [3] 22.8 – 33 [4]	6.7 [1] 21.14 [2] 20 [3] 27.1 [4]	State Water Board Maximum Contaminant Level – 60 ug/L	By-product of drinking water disinfection
HAA6Br	ND – 1.44 [4]	1.03 [4]	None	By-product of drinking water disinfection
HAA9	ND - 17 [1] 15.57 – 32.62 [2] 20.04 – 22.21 [3] 23.42 – 34.38 [4]	14.5 [1] 24.66 [2] 20.85 [3] 28.11 [4]	None	By-product of drinking water disinfection
Bromide	ND - 32 [1]	24.7 [1]	None	Naturally-occurring compound

1 – Fair Oaks Water District (wells, treated surface water from SJWD, and distribution system – 2018 and 2019)
2 – SJWD (treated surface water and distribution system - 2019)
3 – Citrus Heights Water District (wells, treated surface water from SJWD, and distribution system - 2019)
4 – Orange Vale Water Company (treated surface water from SJWD and distribution system - 2019)

SAN JUAN WHOLESALE CUSTOMER AGENCIES – 2021 TABLE OF DETECTED CONSTITUENTS

DETECTED PRIMARY DRINKING WATER CONSTITUENTS regulated to protect your health

CONSTITUENT	UNITS	PHG or (MCLG) or [MRDLG]	MCL or [MRDL]	San Juan Surface Water Including Orange Vale Water Company(a)			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Arsenic	PPB	0.004	10	ND	ND	2019	ND - 2.2	ND	2016, 2019	ND - 3.3	ND	2021	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
Barium	PPM	2	1	ND	ND	2019	ND - 0.11	ND	2016, 2019	ND	ND	2021	Erosion of natural deposits and wastes from metal refineries
Fluoride	PPM	1	2.0	ND	ND	2019	ND - 0.18	0.11	2016, 2019	ND	ND	2021	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (as N)	PPM	10	10	ND	ND	2021	1.5 - 2.9	2.4	2021	ND - 2.1	ND	2021	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Uranium	pCi/L	0.43	20	NR	N/A	N/A	ND - 1.3	ND	2017	ND	ND	2018	Erosion of natural deposits
Chlorine Residual - distribution system	PPM	[4]	[4]	0.07 -1.26 (0.16 - 1.02)	0.62 (0.57)	2021	0.14 - 1.73	0.7	2021	0.17 - 0.86	0.51	2021	Drinking water disinfectant added for treatment
Total Trihalomethanes - distribution system	PPB	N/A	80	22 - 43 (21 - 66)	39.6 (53.8)	2021	ND - 61	38	2021	ND - 67	41.0	2021	By-product of drinking water disinfection
Haloacetic Acids - distribution system	PPB	N/A	60	20 - 36 (15 - 58)	28 (31.3)	2021	ND - 67	26	2021	ND - 46	27.0	2021	By-product of drinking water disinfection
Control of Disinfection By-Product Precursors (TOC) (treated water) (b)	PPM	N/A	TT = 2	0.81 - 2.21	1.12	2021	NR	N/A	N/A	NR	N/A	N/A	Various natural and manmade sources
CONSTITUENT	**UNITS**	**PHG OR (MCLG)**	**MCL**	**LEVEL FOUND**		**YEAR SAMPLED**	**LEVEL FOUND**		**YEAR SAMPLED**	**LEVEL FOUND**		**YEAR SAMPLED**	**MAJOR SOURCES**
Turbidity (b)	NTU	N/A	TT = 1 NTU	0.048		2021	NR		N/A	NR		N/A	Soil runoff
	% Samples	N/A	TT = ≤0.3 NTU	100		2021	NR		N/A	NR		N/A	
CONSTITUENT	**UNITS**	**PHG OR (MCLG)**	**MCL**	**HIGHEST MONTHLY RESULT**	**# MONTHS WITH POSITIVE SAMPLE**	**YEAR SAMPLED**	**HIGHEST MONTHLY RESULT**	**# MONTHS WITH POSITIVE SAMPLE**	**YEAR SAMPLED**	**HIGHEST MONTHLY RESULT**	**# MONTHS WITH POSITIVE SAMPLE**	**YEAR SAMPLED**	**MAJOR SOURCES**
Total Coliform Bacteria	% Samples	(0)	>5% monthly samples positive	2.32 (0)	1 (0)	2021	0	0	2021	0	0	2021	Naturally present in the environment
CONSTITUENT	**UNITS**	**PHG OR (MCLG)**	**AL**	**90th PERCENTILE**	**# SAMPLED/ # EXCEED AL**	**YEAR SAMPLED**	**90th PERCENTILE**	**# SAMPLED/ # EXCEED AL**	**YEAR SAMPLED**	**90th PERCENTILE**	**# SAMPLED/ # EXCEED AL**	**YEAR SAMPLED**	**MAJOR SOURCES**
Lead (c)	PPB	0.2	15	ND (ND)	30/0 (30/0)	2021 (2021)	ND	30/0	2021	ND	31/0	2019	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper	PPM	0.3	1.3	0.055 (0.1)	30/0 (30/0)	2021 (2021)	0.083	30/0	2021	0.063	31/0	2019	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

DETECTED SECONDARY DRINKING WATER CONSTITUENTS regulated for aesthetic qualities

CONSTITUENT	UNITS	PHG or (MCLG)	MCL	San Juan Surface Water Including Orange Vale Water Company			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Total Dissolved Solids	PPM	N/A	1,000	30	30	2019	220 - 260	245	2016, 2019	110 - 190	148	2021	Runoff/leaching from natural deposits
Specific Conductance	µS/CM	N/A	1,600	68-110	82.2	2021	280 - 360	325	2016, 2019	120 - 230	183	2021	Substances that form ions when in water
Sulfate	PPM	N/A	500	3.8	3.8	2019	8.4 - 12	10.6	2016, 2019	3.7 - 16	8.6	2021	Runoff/leaching from natural deposits
Chloride	PPM	N/A	500	1.8	1.8	2019	12 - 18	15.5	2016, 2019	3.5 - 7	5	2021	Runoff/leaching from natural deposits
Turbidity	NTU	N/A	5	0.017 - 0.048	0.023	2021	ND - 0.1	ND	2016, 2019	ND	ND	2021	Soil runoff

DETECTED UNREGULATED DRINKING WATER CONSTITUENTS (d)

CONSTITUENT	UNITS	PHG or (MCLG)	NL	San Juan Surface Water Including Orange Vale Water Company			Citrus Heights Groundwater			Fair Oaks Groundwater			MAJOR SOURCES
				RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	RANGE	AVERAGE	YEAR SAMPLED	
Bicarbonate Alkalinity	PPM	N/A	NONE	12-23	18	2021	130 - 180	150	2016, 2019	54 - 100	76.5	2021	Bicarbonate alkalinity is the measure of the capacity of water or any solution to neutralize or "buffer" acids, represented as the bicarbonate ion.
Hardness	PPM	N/A	NONE	12	12	2019	110 - 150	132.5	2016, 2019	53 - 94	70.6	2021	Hardness is the sum of polyvalent cations present in the water, generally naturally occurring magnesium and calcium.
Sodium	PPM	N/A	NONE	1.6	1.6	2019	16 - 22	19	2016, 2019	5.3 - 16	9.4	2021	Naturally occurring salt in the water
Calcium	PPM	N/A	NONE	4.5-8.3	6	2021	24 - 33	29.25	2016, 2019	13 - 22	17	2021	Erosion of natural deposits
Magnesium	PPM	N/A	NONE	1	1	2019	12 - 16	14.25	2016, 2019	4.8 - 9.6	6.7	2021	Erosion of natural deposits

(a) – Data for OVWC Distribution System is shown in parenthesis.
(b) – Only surface water sources must comply with PDWS for Control of Disinfection By-Product Precursors and turbidity. Turbidity is a mesure of the cloudiness of water. We monitor for it because it is a good indicator of the effectiveness of our filtration system.
(c) – No schools requested monitoring for lead in 2021.
(d) – Unregulated contaminant monitoring helps determine where certain contaminants occur and whether they need to be regulated.
The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

SAN JUAN WATER Wholesale

2021 CONSUMER CONFIDENCE REPORT

Yearly Water Quality Report

San Juan Wholesale Customer Agencies
P.O. Box 2157
Granite Bay, CA 95746

Board of Directors

Kenneth H. Miller	Pamela Tobin
Dan Rich	Manuel Zamorano
Edward J. "Ted" Costa	

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Favor de comunicarse San Juan Family Agency para asistirlo en español.

Этот отчет содержит важную информацию о вашей питьевой воде. Пожалуйста, свяжитесь с San Juan Family Agency для получения помощи на русском языке.

Tony Barela, Operations Manager >

CONTACT US

If you have any questions about this report or your water supply, please contact your local water provider. Each of the member agencies holds monthly board meetings that are open to the public as indicated below.

CITRUS HEIGHTS WATER DISTRICT

Contact Person:
Brian Hensley
(916) 725-6873
bhensley@chwd.org
chwd.org

Board Meetings:
3rd Wednesday each month
6:30 p.m.
6230 Sylvan Road
Citrus Heights

FAIR OAKS WATER DISTRICT

Contact Person:
Paul Siebensohn
(916) 844-3513
psiebensohn@fowd.com
fowd.com

Board Meetings:
2nd Monday every month
6:30 p.m.
10326 Fair Oaks Boulevard
Fair Oaks

ORANGE VALE WATER CO.

Contact Person:
Mark DuBose
(916) 988-1693
mdubose@orangevalewater.com
orangevalewater.com

Board Meetings:
1st Tuesday each month
4:00 p.m.
9031 Central Avenue
Orangevale

SAN JUAN WATER SINCE 1854

Contact Person:
Greg Turner
(916) 791-1715
gturner@sjwd.org
sjwd.org

Board Meetings:
4th Wednesday each month, except November and December where they occur on the 2nd Wednesday
6:00 p.m.
9935 Auburn-Folsom Road
Granite Bay

LEARN MORE ABOUT YOUR WATER AT SJWD.ORG