APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

February 22, 2002

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 02-1475 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-021475
Collected by: MES/JNT
Collected on: 02/04/02

Received: 02/04/02
Extracted: N/A
Tested: 02/04-13/02
Reported: 02/15/02

Sample Description: Water from Pasadena, CA
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result MW-1 02-01475-1	MW-9 02-01475-2
ALKALINITY	310.1	mg/L	2	205	176
BICARBONATE [a]	SM2320B	mg/L	2	205	176
CARBONATE [a]	SM2320B	mg-$CaCO_3$/L	2	<2	<2
PH	150.1	pH unit	0.01	7.39	6.86
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	337	292
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01
Dilution Factor				1	1
PERCHLORATE	E314	μg/L	4	<4	<4
Dilution Factor				4	4
CHLORIDE CL^-	300.0	mg/L	0.2	23.2	19.9
NITRATE AS N	300.0	mg/L	0.04	1.4	3.7
SULFATE SO_4^{--}	300.0	mg/L	0.5	53.9	49.5
Dilution Factor				1	1
ARSENIC	200.9	μg/L	5	1.5J	2.3J
Dilution Factor				1	1
CALCIUM	200.7	μg/L	200	67,700	59,600
IRON	200.7	μg/L	50	47.5J	37.6J
MAGNESIUM	200.7	μg/L	100	20,100	17,400
POTASSIUM	200.7	μg/L	400	3,430	3,550
SODIUM	200.7	μg/L	2000	26,600	23,400

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-1 02-01475-1	MW-9 02-01475-2	TB-15 02-01475-3
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
CARBON TETRACHLORIDE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	μg/L	1	0.4J	0.5J	2
TETRACHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

[a] Calculated from Alkalinity result by EPA 310.1

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level D Data Package Deliverables

General Information

Project: 010HW019 JPL

APCL Service ID: 02-1475

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

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Case Narrative

Project: JPL/Pasadena, CA/00HW019

For SOTA Environmental

APCL Service No: 02-1475

1. Sample Identification

The sample identifications are listed in the following table:

SOTA Environmental Sample ID	APCL Sample ID
TB-15	02-01475-3
MW-1	02-01475-1
MW-9	02-01475-2

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),
7196 (Chromium (VI)),
E314 (Perchlorate, low level),
200.7 (Metals by ICP),
300.0 (Anions by IC),
SM2320B (Carbonate),
150.1 (pH),
160.1 (Solids, Total Dissolved (TDS)),
200.9 (Arsenic, As, by GFAA),
310.1 (Alkalinity),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None.

6. Anomaly

None.

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Page 1 of 1

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code JPL Job # 00HW019 P.O. #

Project Address PASADENA, CALIFORNIA APCL Quotation #

Due Date: ☐regular ☐rush: ___ days ___ hours Sampled by: MES/JNT

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (524.2)	Ca, K, Mg, Fe (200.7)	Total Cr & Pb (200.8)	As (200.9)	Cr VI (7196)	Perchlorate (314.0)	Carbonate, Bicarb., Alk. (310.1)	Nitrate, Sulfate, Chloride (300.0)	TDS (160.1)	pH (150.1)			Remarks
TB-45	TRIP BLANK	2/4/02	12:30	WATER	HCl	2	X												
MW-1	MW-1				HCl	3	X												
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			
MW-9	MW-9		14:34		HCl	3	X												
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			

1475

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___(E, C or D); ☐Other _____(Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐Intact; ☐Broken. Cooler Seal: ☐Intact; ☐Broken; ☐ None . Tag # _____ Temperature: ☐ Room ☐Cold (_____ °C).

Relinquished by [signature] Date/Time 2/4/02 / 1658 Received by Roy Algustin Date/Time 2/4/02 / 16:20

Relinquished by Roy Algustin Date/Time 2/4/02 / 18:20 Received by Paul K Date/Time 2/5/02 / 0830

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

APCL Form 4-101, Ver. 4.0, Dec. 20, 1994. Root-file:[CUST.DATA.LAB]CHAIN-ROOT.TEX File:[CUST.DATA.LAB]CHAIN4.TEX

Applied P & Ch Laboratory
13760 Magnolia Ave., Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: 1475 Client Name/Project: Sota Environmental

1. Sample Arrival

Date/Time Received 2/4/02 1600 Date/Time Opened 2/5/02 0830 By (name): Paul

Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☑ APCL Empl: Ray

2. Chain-of-Custody (CoC)

☑ With Samples? ☐ Faxed? ☑ Client has Copy? ☐ Signed, dated? By:
☑ Project ID? ☑ Analyses Clear? ☐ Hold Samples? #on Hold # Received
☑ CoC/Docs Zip-Locked under lid? ☐ Compos.#: ☑ #Samples OK?
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs):

3. Shipping Container/Cooler

☑ Cooler Used? # of 1 Cooled by: ☑ Ice ☐ Blue Ice ☐ Dry Ice ☐ None
Temp °C 2.5
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ pH <2 ☐ pH >12
If Not, pH = Preserved by: ☐ Client ☐ APCL ☐ Third Party

5. Holding-time Requirements

☑ pH 24hr ☐ BACT 6/24hr ☑ Cr^{VI} 24hr ☐ NO_3^- 48hr ☐ BOD 48hr
☐ Cl_2 ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP
☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☑ Intact? ☐ Broken? ☐ Documented? Number:
Type: ☑ plastic ☑ glass ☐ Tube: brass/SS ☐ Tedlar Bag
☑ Quantity OK? ☐ Leaking? ☐ Anomaly?
☑ Caps tight? ☐ Air Bubbles? ☐ Anomaly?
Labels: ☑ Unique ID? ☐ Date/Time ☐ Preserved?

7. Turn Around Time

☑ RUSH TAT: 5 day ☐ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H_2O ☑ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other:
☐ Ground H_2O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☑ ALL OK? (if not, attach docs) ☐ Client Contact? (Name:)Date/Time:
Received/Checked by: Paul Date: 4 Feb 2002 Time: 9:08 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

DocumentFile: [neal.texfiles]smprcl.tex.

56802

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

02-01475 (1288_ 316) (4858100_ 316)

02/05/02

Part 1: General Information

☐	Company Information	Name:	*SOTA Environmental*
		Address:	*16835 W. Bernardo Dr, Ste. 212 ,San Diego ,CA 92127*
☐	Project Information	Project Description:	*JPL*
		Project #:	*00HW019*
☐	Billing Information	P.O. #:	
		Bill Address:	*16835 W. Bernardo Dr, Ste. 212 ,San Diego ,CA 92127*
		Lab Project ID:	*2002_0002*
		Client Database #:	*01*
☐	Receiving Information	Who Received Sample?	*Paul*
		Receiving Date/Time:	*02/04/02 1600*
		COC No.	
☐	Shipping Information	Shipping Company	*APCL pick up*
		Packing Information:	*Cooler/Ice Chester*
		Cooler Temperature:	*2.5 °C*
☐	Container Information	Container Provider:	*Client*
☐	Sampling Information	Sampling Person:	*MES/JNT*
		Sampling Company:	*Client*
☐	Turn-Around-Time Option:		*Rush 5 working day(s)*
☐	QC Option:		*NEESA D*
☐	Disposal Option:		*Not specify*

56803

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont-tainer	Preser-vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	TB-15	524.2	02-01475-3	W	V	C	40	2	G	020402	N	0	6	☐
2	MW-1	524.2	02-01475-1-α	W	V	C	40	3	G	020402	N	0	6	☐
	MW-1	Metals	02-01475-1-β	W	P	N	500	1	G	020402	N	0	6	☐
	MW-1	300	02-01475-1-γ	W	P		500	1	G	020402	N	0	6	☐
3	MW-9	524.2	02-01475-2-α	W	V	C	40	3	G	020402	N	0	6	☐
	MW-9	Metals	02-01475-2-β	W	P	N	500	1	G	020402	N	0	6	☐
	MW-9	300	02-01475-2-γ	W	P		500	1	G	020402	N	0	6	☐

Part 3: Analysis Information

Test Items:

☑ *524.2*	Volatile Organic Compounds
☑ *7196*	Chromium (VI)
☑ *300.0*	Perchlorate, low level
☑ *200.7/6010*	Sodium, Na, by ICP
☑ *200.7/6010*	Potassium, K, by ICP
☑ *200.7/6010*	Calcium, Ca, by ICP
☑ *200.7/6010*	Magnesium, Mg, by ICP
☑ *200.7/6010*	Iron, Fe, by ICP
☑ *300.0*	Sulfate (SO_4^{--}), by IC
☑ *300.0/SM4500NO3*	Nitrate (NO_3^-) as N by IC
☑ *300.0*	Chloride Cl^- by IC
☑ *SM2320B*	Carbonate
☑ *SM2320B*	Bicarbonate
☑ *9040/150.1*	pH
☑ *160.1*	Solids, Total Dissolved (TDS)
☑ *206.2/7060*	Arsenic, As, by GFAA
☑ *310.1*	Alkalinity
☐ *PAH-SIM*	PAH (NOAA)

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	524.2	CHROMIUM	PERCHL	NA	K	CA	MG	FE	
1	TB-15	524.2	02-01475-3	W	X								☐
2	MW-1	524.2	02-01475-1-α	W	X								☐
	MW-1	Metals	02-01475-1-β	W				X	X	X	X	X	☐
	MW-1	300	02-01475-1-γ	W		X	X						☐

568 4

3	MW-9	524.2	02-01475-2-α	W	X									☐
	MW-9	Metals	02-01475-2-β	W					X	X	X	X	X	☐
	MW-9	300	02-01475-2-γ	W			X	X						☐

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	SO4	NO3	CL	CARBONATE	BICARBON	PH	TDS	AS	
1	TB-15	524.2	02-01475-3	W									☐
2	MW-1	524.2	02-01475-1-α	W									☐
	MW-1	Metals	02-01475-1-β	W								X	☐
	MW-1	300	02-01475-1-γ	W	X	X	X	X	X	X	X		☐
3	MW-9	524.2	02-01475-2-α	W									☐
	MW-9	Metals	02-01475-2-β	W								X	☐
	MW-9	300	02-01475-2-γ	W	X	X	X	X	X	X	X		☐

Seq. #	Client"s Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	ALKALIN	SIM	
1	TB-15	524.2	02-01475-3	W			☐
2	MW-1	524.2	02-01475-1-α	W			☐
	MW-1	Metals	02-01475-1-β	W			☐
	MW-1	300	02-01475-1-γ	W	X		☐
3	MW-9	524.2	02-01475-2-α	W			☐
	MW-9	Metals	02-01475-2-β	W			☐
	MW-9	300	02-01475-2-γ	W	X		☐

☐ Client"s Requirement: **PLEASE ~~RUN MS/MSD ON SAMPLE #~~**

☐ **IF ENOUGH SAMPLE**

☐ **FOR 8270SIM, PLEASE INCLUDE 1,4-DIOXANE**

Login By En-Yu Paul Kou

Check By

568 5

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

February 11, 2002

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 02-1138 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-021138
Collected by: MES/JNT
Collected on: 01/11/02

Received: 01/11/02
Extracted: N/A
Tested: 01/11-15/02
Reported: 01/25/02

Sample Description: Water from Pasadena, CA
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result MW-3-1 02-01138-2	MW-3-2 02-01138-3
ALKALINITY	310.1	mg/L	2	160	190
BICARBONATE [a]	SM2320B	mg/L	2	160	190
CARBONATE [a]	SM2320B	mg-$CaCO_3$/L	2	<2	<2
PH	150.1	pH unit	0.01	7.70	7.66
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	231	281
Dilution Factor				2	2.5
CHLORIDE CL^-	300.0	mg/L	0.2	12.8	23.4
NITRATE AS N	300.0	mg/L	0.04	0.91	0.91
SULFATE SO_4^{--}	300.0	mg/L	0.5	31.4	48.6
Dilution Factor				1	1
CALCIUM	200.7	μg/L	200	40,400	56,200
IRON	200.7	μg/L	50	234	233
MAGNESIUM	200.7	μg/L	100	16,900	21,100
POTASSIUM	200.7	μg/L	400	2,580	2,740
SODIUM	200.7	μg/L	2000	18,700	21,500

Component Analyzed	Method	Unit	PQL	Analysis Result MW-3-3 02-01138-4	MW-3-4 02-01138-5	MW-3-5 02-01138-6
ALKALINITY	310.1	mg/L	2	162	153	143
BICARBONATE [a]	SM2320B	mg/L	2	162	153	91.6
CARBONATE [a]	SM2320B	mg-$CaCO_3$/L	2	<2	<2	51.1
PH	150.1	pH unit	0.01	7.93	8.05	9.08
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	234	242	176
Dilution Factor				2.5	2	2
CHLORIDE CL^-	300.0	mg/L	0.2	22.7	11.0	10.0
NITRATE AS N	300.0	mg/L	0.04	0.27	0.33	0.13
SULFATE SO_4^{--}	300.0	mg/L	0.5	31.2	12.0	5.0
Dilution Factor				1	1	1
CALCIUM	200.7	μg/L	200	30,200	18,000	2,320
IRON	200.7	μg/L	50	577	425	1,320
MAGNESIUM	200.7	μg/L	100	14,900	8,530	548
POTASSIUM	200.7	μg/L	400	3,090	2,070	1,260
SODIUM	200.7	μg/L	2000	39,700	48,300	76,000

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-3 02-01138-1	MW-3-1 02-01138-2	MW-3-2 02-01138-3
ARSENIC	200.9	μg/L	5	<5	<5	<5
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01
Dilution Factor				1	1	1
PERCHLORATE	E314	μg/L	4	<4	<4	<4
VOLATILE ORGANIC COMPOUNDS						
Dilution Factor				1	1	1
CARBON TETRACHLORIDE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	μg/L	1	<1	1	4.2
TETRACHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5

Component Analyzed	Method	Unit	PQL	Analysis Result MW-3-3 02-01138-4	MW-3-4 02-01138-5	MW-3-5 02-01138-6	TB-3 02-01138-7
ARSENIC	200.9	μg/L	5	<5	4.5J	4.7J	-
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	-
Dilution Factor				1	1	1	1
PERCHLORATE	E314	μg/L	4	4.6	<4	91.3	-
VOLATILE ORGANIC COMPOUNDS							
Dilution Factor				1	1	1	1
CARBON TETRACHLORIDE	524.2	μg/L	0.5	11.9	<0.5	<0.5	<0.5
CHLOROFORM	524.2	μg/L	0.5	22.7	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	524.2	μg/L	1	<1	10	7.5	<1
TETRACHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	μg/L	0.5	1.2	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
† All results are reported on dry basis for soil samples.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
(a) Calculated from alkalinity result by EPA 310.1

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level D Data Package Deliverables

General Information

Project: 01HW019 JPL

APCL Service ID: 02-1138

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: JPL/00HW019

For SOTA Environmental

APCL Service No: 02-1138

1. Sample Identification

The sample identifications are listed in the following table:

SOTA Environmental Sample ID	APCL Sample ID
TB-3	02-01138-7
MW-3-5	02-01138-6
MW-3-4	02-01138-5
MW-3-3	02-01138-4
ER-3	02-01138-1
MW-3-2	02-01138-3
MW-3-1	02-01138-2

2. Analytical Methodology

Samples are analyzed by EPA methods

524.2 (Volatile Organic Compounds),
7196 (Chromium (VI)),
E314 (Perchlorate, low level),
200.7 (Metals by ICP),
300.0 (Nitrate (NO_3^-) as N by IC),
300.0 (Chloride by IC),
300.0 (Sulfate by IC),
SM2320B (Carbonate),
SM2320B (Bicarbonate),
150.1 (pH),
160.1 (Solids, Total Dissolved (TDS)),
200.9 (Arsenic, As, by GFAA),
310.1 (Alkalinity),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

6. Anomaly

None

173700

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code SPL Job #00HW019 P.O. #

Project Address PASADENA, CALIFORNIA APCL Quotation #

Due Date: ☐regular ☐rush: ___ days ___ hours Sampled by: MES/JNT

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (524.2)	Total Cr & Pb (200.8)	As (200.9)	Na, K, Ca, Mg, Fe (200.7)	Nitrate, Sulfate, Chloride (300.0)	Carbonate, Bicarb. Alk. (310.1)	Cr VI (7196)	Perchlorate (314.0)	TDS (160.1)	pH (150.1)			Remarks
TB-3	TRIP BLANK	1/11/02	851	WATER	HCl	2	X												
MW-3-5	MW-3-5		915		HCl	3	X												
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			
MW-3-4	MW-3-4		1003		HCl	3	X												
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			
MW-3-3	MW-3-3		1057		HCl	3	X												
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			
ER-3	EQUIP. RINSATE		1104		HCl	3	X												
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			
MW-3-2	MW-3-2		1205		HCl	3	X												
MW-3-2	MW-3-2		1205		HNO_3	2		X	X	X									

1138

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___(E, C or D); ☐Other _____(Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐Intact; ☐Broken. Cooler Seal: ☐Intact; ☐Broken; ☐ None . Tag # _____ Temperature: ☐ Room ☐Cold (_____ °C).

Relinquished by [signature] Date/Time 1/11/02 / 1437 Received by [signature] Date/Time 01-11-02 / 1437

Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory

APCL

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen

Client: SOTA ENVIR. TECH., INC. Contact: MIKE SAYRE Tel #: 858-485-8100 Fax #: 858-485-0812

Address: 16835 W. BERNARDO DR. #212 City: SAN DIEGO State: CA Zip code: 92127

Bill to: SOTA

Project Name/Code JPL Job #00HW019 P.O. #

Project Address PASADENA, CALIFORNIA APCL Quotation #

Due Date: ☐regular ☐rush: ___ days ___ hours Sampled by: MES/JNT

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (524.2)	Total Cr & Pb (200.8)	As (200.9)	Na, K, Ca, Mg, Fe (200.7)	Nitrate, Sulfate, Chloride (300.0)	Carbonate, Bicarb. Alk. (310.1)	Cr VI (7196)	Perchlorate (314.0)	TDS (160.1)	pH (150.1)			Remarks
~~TB-1~~	~~TB-1 TRIP BLANK~~																		
MW-3-2	MW-3-2	1/11/02	1205	WATER	—	1					X	X	X	X	X	X			
MW-3-1	MW-3-1		1306		HCl	3	X												
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			

1138

1138

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___(E, C or D); ☐Other _____(Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. **If not specified, samples will be discarded 45 days after samples are received.**

Sample Conditions: ☐Intact; ☐Broken. Cooler Seal: ☐Intact; ☐Broken; ☐ None . Tag # _____ Temperature: ☐ Room ☐Cold (_____ °C).

Relinquished by [signature] Date/Time 1/11/02 / 1437 Received by [signature] Date/Time 01-11-02 1437

Relinquished by Date/Time / Received by Date/Time /

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APCL

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Chain of Custody

Please Print in pen Page 1 of 2

Client: SOTA Envir. Tech., Inc. Contact: Mike Sabre Tel #: 858-485-8100 Fax #: 858-485-0812
Address: 16835 W. Bernardo Dr. #212 City: San Diego State: CA Zip code: 92127
Bill to: SOTA
Project Name/Code JPL Job # 00HW0019 P.O. #
Project Address Pasadena, California APCL Quotation #
Due Date: ☐regular ☐rush: ___ days ___ hours Sampled by: MES/JNT

White – With report
Yellow – Lab copy
Pink – Originator

Field Sample ID No.	Sample Description	Date Collected	Time Collected	Sample Matrix	Preservation	# of Containers	VOCs (524.2)	Total Cr & Pb (200.8)	As (200.9)	Na, K, Ca, Mg, Fe (200.7)	Nitrate, Sulfate, Chloride (300.0)	Carbonate, Bicarb., Alk. (310.1)	Cr VI (7196)	Perchlorate (314.0)	TDS (160.1)	pH (150.1)			Remarks
TB-3	TRIP BLANK	1/11/02	851	WATER	HCl	2	X												
MW-3-5	MW-3-5		915		HCl	3													
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			
MW-3-4	MW-3-4		1003		HCl	3	X												
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			
MW-3-3	MW-3-3		1057		HCl	3	X												
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			
ER-3	EQUIP. RINSATE		1104		HCl	3	X												
					HNO_3	2		X	X	X									
					—	1					X	X	X	X	X	X			
MW-3-2	MW-3-2		1205		HCl	3	X												
MW-3-2	MW-3-2		1205		HNO_3	2		X	X	X									

QC Requirement: ☐Regular; ☐QA/QC Report; ☐WIP; ☐Raw Data; ☐Extended Raw Data ☐CLP; ☐ACE ☐AFCEE ☐NEESA ___ (B, C or D); ☐Other _____ (Please specify)

Sample Disposal: ☐Return ☐Disposal by APCL ☐Hold for _____ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions: ☐Intact; ☐Broken. Cooler Seal: ☐Intact; ☐Broken; ☐ None. Tag # _____ Temperature: ☐ Room ☐Cold (_____ °C).

Relinquished by [signature] Date/Time 1/11/02 / 1437 Received by [signature] Date/Time 01-11-02 1437
Relinquished by Date/Time / Received by Date/Time /

APCL USE ONLY Service # Note:

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

Applied P & Ch Laboratory
13760 Magnolia Ave., Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: 1138 **Client Name/Project:** Sota

1. Sample Arrival

Date/Time Received 1/11/02 1437 Date/Time Opened 1/11/02 1545 By (name): Richard

Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☐ FedEx ☑ APCL Empl: Richard

2. Chain-of-Custody (CoC)

☑ With Samples? ☐ Faxed? ☐ Client has Copy? ☐ Signed, dated? By:
☑ Project ID? ☑ Analyses Clear? ☐ Hold Samples? #on Hold # Received 7
☑ CoC/Docs Zip-Locked under lid? ☐ Compos.#: ☑ #Samples OK?
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs):

3. Shipping Container/Cooler

☑ Cooler Used? # of 1 Cooled by: ☑ Ice ☐ Blue Ice ☐ Dry Ice ☐ None

Temp °C 4.1

(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).

Cooler Custody Seal? ☐ Absent ☐ Intact ☐ Tampered?

4. Sample Preservation

☐ **pH <2** ☐ pH >12

If Not, pH = ____ Preserved by: ☐ Client ☐ APCL ☐ Third Party

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☐ Cr^{VI} 24hr ☐ NO_3^- 48hr ☐ BOD 48hr
☐ Cl_2 ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP
☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☑ Intact? ☐ Broken? ☐ Documented? Number:

Type: ☑ plastic ☑ glass ☐ Tube: brass/SS ☐ Tedlar Bag
☑ Quantity OK? ☐ Leaking? ☐ Anomaly?
☑ Caps tight? ☐ Air Bubbles? ☐ Anomaly?

Labels: ☑ Unique ID? ☐ Date/Time ☐ Preserved?

7. Turn Around Time

☐ RUSH TAT: ____ ☑ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H_2O ☑ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other:
☐ Ground H_2O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☑ ALL OK? (if not, attach docs) ☐ Client Contact? (Name:____)Date/Time:____

Received/Checked by: Kenny Date: 11 Jan 2002 Time: 8:20 a.m.

*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

DocumentFile: [neal.texfiles]smprcl.tex.

173702

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

02-01138 (1288_ 298) (4858100_ 298)

01/11/02

Part 1: General Information

☐ Company Information	Name:	*SOTA Environmental*
	Address:	*16835 W. Bernardo Dr, Ste. 212 ,San Diego ,CA 92127*
☐ Project Information	Project Description:	*JPL*
	Project #:	*00HW019*
☐ Billing Information	P.O. #:	
	Bill Address:	*16835 W. Bernardo Dr, Ste. 212 ,San Diego ,CA 92127*
	Lab Project ID:	*2002_0002*
	Client Database #:	*01*
☐ Receiving Information	Who Received Sample?	*Richard*
	Receiving Date/Time:	*01/11/02 1437*
	COC No.	
☐ Shipping Information	Shipping Company	*APCL pick up*
	Packing Information:	*Cooler/Ice Chester*
	Cooler Temperature:	*4.1 °C*
☐ Container Information	Container Provider:	*Client*
☐ Sampling Information	Sampling Person:	
	Sampling Company:	*Client*
☐ Turn-Around-Time Option:		*Rush 5 working day(s)*
☐ QC Option:		*NEESA D*
☐ Disposal Option:		*Not specify*

175753

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont-tainer	Preser-vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	TB-3	VOC	02-01138-7	W	V	C	40	3	G	011102	N	0	7	☐
2	MW-3-5	VOC	02-01138-6-α	W	V	C	40	3	G	011102	N	0	7	☐
	MW-3-5	Metal	02-01138-6-β	W	P	N	500	1	G	011102	N	0	7	☐
	MW-3-5	300	02-01138-6-γ	W	P		500	1	G	011102	N	0	7	☐
3	MW-3-4	VOC	02-01138-5-α	W	V	C	40	3	G	011102	N	0	7	☐
	MW-3-4	Metal	02-01138-5-β	W	P	N	500	1	G	011102	N	0	7	☐
	MW-3-4	300	02-01138-5-γ	W	P		500	1	G	011102	N	0	7	☐
4	MW-3-3	VOC	02-01138-4-α	W	V	C	40	3	G	011102	N	0	7	☐
	MW-3-3	Metal	02-01138-4-β	W	P	N	500	1	G	011102	N	0	7	☐
	MW-3-3	300	02-01138-4-γ	W	P		500	1	G	011102	N	0	7	☐
5	ER-3	VOC	02-01138-1-α	W	V	C	40	3	G	011102	N	0	7	☐
	ER-3	Metal	02-01138-1-β	W	P	N	500	1	G	011102	N	0	7	☐
	ER-3	300	02-01138-1-γ	W	P		500	1	G	011102	N	0	7	☐
6	MW-3-2	VOC	02-01138-3-α	W	V	C	40	3	G	011102	N	0	7	☐
	MW-3-2	Metal	02-01138-3-β	W	P	N	500	1	G	011102	N	0	7	☐
	MW-3-2	300	02-01138-3-γ	W	P		500	1	G	011102	N	0	7	☐
7	MW-3-1	VOC	02-01138-2-α	W	V	C	40	3	G	011102	N	0	7	☐
	MW-3-1	Metal	02-01138-2-β	W	P	N	500	1	G	011102	N	0	7	☐
	MW-3-1	300	02-01138-2-γ	W	P		500	1	G	011102	N	0	7	☐

Part 3: Analysis Information

Test Items:

☑ *524.2*	Volatile Organic Compounds
☑ *7196*	Chromium (VI)
☑ *300.0*	Perchlorate, low level
☑ *200.7/6010*	Sodium, Na, by ICP
☑ *200.7/6010*	Potassium, K, by ICP
☑ *200.7/6010*	Calcium, Ca, by ICP
☑ *200.7/6010*	Magnesium, Mg, by ICP
☑ *200.7/6010*	Iron, Fe, by ICP
☑ *300.0*	Sulfate (SO_4^{--}), by IC
☑ *300.0/SM4500NO3C*	Nitrate (NO_3^-) as N by IC
☑ *300.0*	Chloride Cl^- by IC
☑ *SM2320B*	Carbonate
☑ *SM2320B*	Bicarbonate
☑ *9040/150.1*	pH
☑ *160.1*	Solids, Total Dissolved (TDS)

17[illegible]4

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

February 26, 2002

SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr. Suite 212
San Diego CA 92127

Dear Yu,

This package contains samples in our Service ID 02-1492 and your project is 00HW019 JPL. Enclosed please find:

(1) One original report.
(2) One original Chain of Custody.
(3) One diskette containing EDD Deliverable.
(4) One original of Level D Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
SOTA Environmental
Attention: Yu Zeng
16835 W. Bernardo Dr, Ste. 212
San Diego CA 92127
Tel: (858)485-8100 Fax: (858)485-0812

Service ID #: 801-021492
Collected by: MES/JNT
Collected on: 02/05/02

Received: 02/05/02
Extracted: 02/08/02
Tested: 02/06-13/02
Reported: 02/19/02

Sample Description: Water from Pasadena, CA
Project Description: 00HW019 JPL

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result ER-13 02-01492-1	MW-4-1 02-01492-2	MW-4-2 02-01492-3	MW-4-3 02-01492-4
ALKALINITY	310.1	mg/L	2	-	153	212	193
BICARBONATE [a]	SM2320B	mg/L	2	-	153	212	193
CARBONATE [a]	SM2320B	mg-$CaCO_3$/L	2	-	<2	<2	<2
PH	150.1	pH unit	0.01	-	7.46	7.53	7.21
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	-	228	581	245
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	<0.01
Dilution Factor				1	1	1	1
PERCHLORATE	E314	μg/L	4	<4	<4	<4	<4
Dilution Factor				1	1.25	10	4
CHLORIDE CL^-	300.0	mg/L	0.2	-	9.7	96.9	32.6
NITRATE AS N	300.0	mg/L	0.04	-	1.1	7.6	0.25
SULFATE SO_4^{--}	300.0	mg/L	0.5	-	38.4	105	2.3
Dilution Factor				1	1	1	1
ARSENIC	200.9	μg/L	5	2.6J	2.9J	2.4J	2.4J
Dilution Factor				1	1	1	1
CALCIUM	200.7	μg/L	200	-	45,100	94,700	46,400
IRON	200.7	μg/L	50	-	324	288	14,200
MAGNESIUM	200.7	μg/L	100	-	14,000	32,900	14,400
POTASSIUM	200.7	μg/L	400	-	2,670	3,260	2,130
SODIUM	200.7	μg/L	2000	-	18,600	36,200	31,600
VOLATILE ORGANIC COMPOUNDS							
Dilution Factor				1	1	1	1
CARBON TETRACHLORIDE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	524.2	μg/L	0.5	-	-	-	1.1
TETRACHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	0.5	<0.5
TRICHLOROETHENE	524.2	μg/L	0.5	<0.5	<0.5	0.9	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	μg/L	0.5	<0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result MW-4-4 02-01492-5	MW-4-5 02-01492-6	MW-4-3D 02-01492-7	TB-17 02-01492-8
ALKALINITY	310.1	mg/L	2	159	159	197	-
BICARBONATE [a]	SM2320B	mg/L	2	159	159	197	-
CARBONATE [a]	SM2320B	mg-$CaCO_3$/L	2	<2	<2	<2	-
PH	150.1	pH unit	0.01	8.02	7.84	7.04	-
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	307	279	257	-
CHROMIUM (VI)	7196	mg/L	0.01	<0.01	<0.01	<0.01	-
Dilution Factor				1	1	1	1
PERCHLORATE	E314	µg/L	4	<4	<4	<4	-
Dilution Factor				4	4	5	1
CHLORIDE CL^-	300.0	mg/L	0.2	31.2	28.8	34.1	-
NITRATE AS N	300.0	mg/L	0.04	9.3	8.2	0.32	-
SULFATE SO_4^{--}	300.0	mg/L	0.5	19.9	18.4	3.2	-
Dilution Factor				1	1	1	1
ARSENIC	200.9	µg/L	5	3.2J	3.9J	1.9J	-
Dilution Factor				1	1	1	1
CALCIUM	200.7	µg/L	200	45,500	42,300	46,100	-
IRON	200.7	µg/L	50	195	2,330	19,800	-
MAGNESIUM	200.7	µg/L	100	13,700	13,600	14,400	-
POTASSIUM	200.7	µg/L	400	2,240	2,250	2,140	-
SODIUM	200.7	µg/L	2000	36,800	36,600	31,600	-
VOLATILE ORGANIC COMPOUNDS							
Dilution Factor				1	1	1	1
CARBON TETRACHLORIDE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
CHLOROFORM	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	524.2	µg/L	0.5	-	-	1.4	-
METHYLENE CHLORIDE	524.2	µg/L	1	-	-	-	1
TETRACHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
112TRICHLORO-122TRIFLUOROETHANE	524.2	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result ER-13 02-01492-1	MW-4-2 02-01492-3
Dilution Factor				1	1
1,4-DIOXANE	8270-SIM	μg/L	3	<3	<3

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

[a] Calculated from alkalinity result by EPA 310.1.

Respectfully submitted,

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