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HYDROGEOLOGY • ENGINEERING

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October 12, 2020

VIA FEDERAL EXPRESS STANDARD

Mr. Steve Rounds
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Southern California Region
9211 Oakdale Avenue
Chatsworth, CA 91311-6520

Re: Data Submittal for Groundwater Monitoring and Groundwater Extraction and Treatment Pilot Testing, Third Quarter 2020, Raytheon Company (Former Hughes Aircraft Company) Facility, 1901 West Malvern Avenue, Fullerton, California

Dear Mr. Rounds:

This letter has been prepared for the submittal of groundwater monitoring and groundwater treatment pilot testing data collected during the third quarter 2020 for the former Raytheon Company site located at 1901 West Malvern Avenue, Fullerton, California (the Site) (Figure 1). Groundwater monitoring activities were completed in general accordance with the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC)-approved Groundwater Monitoring Work Plan and Sampling and Analysis Plan (GMWPSAP) and subsequent addenda (DTSC, 2003 and 2011; Hargis + Associates, Inc. [H+A], 2003, 2011a, and 2011b). Groundwater treatment pilot testing continued throughout the third quarter 2020 in general accordance with the DTSC-approved Groundwater Extraction and Treatment System (GETS) Pilot Testing, Corrective Measures Study Work Plan Addendum No. 6 (DTSC, 2013; H+A, 2013). The results of the third quarter 2020 groundwater monitoring and pilot GETS operation from June through August 2020 are included in this data submittal.

GROUNDWATER MONITORING

Groundwater monitoring consists of measuring groundwater levels and collecting groundwater samples from monitor wells and piezometers at the Site (Figure 2). Quarterly water level measurements were taken at all wells and piezometers, and groundwater samples were collected from extraction wells and select monitor wells in August 2020 in general accordance with the GMWPSAP and Addendum No. 1 (H+A, 2003 and 2011a) (Table 1).

Water Level Measurement and Groundwater Sample Collection

Groundwater monitoring included water level measurements in all Site monitor wells, piezometers, and extraction wells (Figures 2 and 3). Quarterly groundwater levels were measured in all wells on August 3, 2020 (Table 2).

Groundwater samples were collected during the period from August 4 through August 6, 2020 (Appendix A). Analytical results are summarized in Table 3 and provided in Appendix B. Additional groundwater monitoring was conducted as part of routine operation and monitoring of the pilot GETS. A summary of the pilot GETS operation and monitoring is provided below.

Other Offices:
Folsom, CA
Mesa, AZ
Tucson, AZ

Original and field-duplicate groundwater samples were analyzed by Advanced Technology Laboratories, Inc., Signal Hill, California (ATL) (Appendix B). Laboratory split groundwater samples were analyzed by Eurofins Calscience, Garden Grove, California (Appendix B). Chain-of-custody documentation was enclosed with each sample shipment. Results of groundwater sample volatile organic compound (VOC) and 1,4-dioxane analyses have been summarized (Table 3).

Monitor well MW-34A was not sampled in accordance with its sample schedule outlined in the GMWPSAP due to well pump operation issues. A new submersible pump will be installed in monitor well MW-34A and groundwater samples will be collected during the next annual sampling event in February 2021 in accordance with the GMWPSAP and Addendum No. 1 (H+A, 2003 and 2011a) (Table 1).

Quality Assurance/Quality Control

Quality assurance/quality control (QA/QC) samples collected in August 2020 consisted of trip blanks, field duplicates, equipment rinsate blanks, and laboratory split samples. Trip blanks were provided by ATL. Field duplicate samples were collected for analysis of VOCs and 1,4-dioxane from monitor wells MW-31, MW-32B, and MW-42 in August 2020 (Table 3). Split samples were collected for analysis of VOCs and 1,4-dioxane from monitor wells MW-31, MW-32B, and MW-42 in August 2020 (Table 3).

The relative percent difference (RPD) was calculated between the results of each field duplicate and each laboratory split sample with its corresponding original sample. All results for groundwater samples collected from monitor wells MW-31, MW-32B, and MW-42 are within quality control criteria. The following table summarizes the principal Site compounds, 1,1-dichloroethylene (1,1-DCE), trichloroethylene (TCE) and 1,4-dioxane, results in the original, field duplicate and laboratory split groundwater samples, as well as the calculated RPDs and assigned qualifier flag, if any.

Well ID / Collection Date	Compound	Original (ug/l)	Duplicate (ug/l)	RPD (percent)	Split (ug/l)	RPD (percent)	Qualifier Flag
MW-31	1,1-DCE	150	170	13	110	31	
	TCE	6.7	6.5	3.0	5.1	27	
	1,4-dioxane	6.6	6.3	4.7	4.1	47	
MW-32B	1,1-DCE	52	52	0	41	24	
	TCE	13	13	0	12	8.0	
	1,4-dioxane	1.7	1.7	0	1.7	0	
MW-42	1,1-DCE	31	33	6.3	28	10	
	TCE	<0.50	<0.50	NA	<0.50	NA	
	1,4-dioxane	1.4	1.3	7.4	1.3	7.4	

ug/l = micrograms per liter
NA = not applicable

The following table summarizes H+A project QA/QC criteria for field duplicate and laboratory split RPDs.

Range of detection	RPD Criteria (percent)	Project Qualifier Flag	Note
PQL to 10x PQL	< 100	E (estimated) or U (unusable)	Project qualifier flag may be assigned if RPD criteria is not met and/or result is not consistent with data trending
10x PQL to 100x PQL	< 30		
>100x PQL	< 50		

PQL = practical quantitation limit (undiluted)
< = less than
> = greater than

There were no detections of 1,4-dioxane in the equipment rinsate blank or method blanks analyzed with groundwater samples collected during the August 2020 groundwater monitoring event (Table 3; Appendix B). Additionally, there were no detection of VOCs in the trip blanks, equipment rinsate blanks or method blanks analyzed with groundwater samples collected during the August 2020 groundwater samples with the exception of the following low-level detections:

- Methylene chloride was detected at concentrations of 0.24 J ug/l in laboratory split trip blank sample TB-080520B
- Methylene chloride was detected at concentrations of 0.055 J ug/l in laboratory split trip blank sample TB-080620B
- m,p-xylene was detected at a concentration of 0.24 J ug/l in equipment rinsate blank sample RB-080520

Methylene chloride and m,p-xylene were not detected in any groundwater samples collected during the August 2020 sampling event, therefore no associated groundwater samples were qualified due to these low-level VOC detections in the laboratory split trip blank samples and the equipment rinsate blank sample.

The data quality assessment also included review of laboratory QA/QC results. Laboratory QA/QC results are within acceptable criteria.

GROUNDWATER EXTRACTION AND TREATMENT PILOT STUDY

This section summarizes the pilot GETS operation within the three-month period of monitoring conducted June to August 2020. The pilot GETS consists of four groundwater extraction wells, the treatment system, and the disposal system; however, the current phase of pilot testing is operating using only two extraction wells, EW-02 and MW-29. Current extraction rates are nominally 40 gallons per minute (gpm) from extraction well EW-02 and nominally 10 gpm from extraction well MW-29. The treatment system processes extracted groundwater through an advanced oxidation unit that utilizes ultraviolet (UV) light and hydrogen peroxide (UV Ox), followed by a granular activated carbon polish prior to disposal to the sanitary sewer.

Initial startup of the pilot GETS took place in July 2008. From July 2008 through November 2009, the pilot GETS was operated with extraction wells EW-01 and MW-21 operating at approximately 10 gpm each. Pilot GETS expansion took place between November 2009 and March 2010 in order to incorporate extraction well EW-02 into the extraction well network. The system maximum flowrate was also increased from 20 gpm to 50 gpm to utilize the maximum local sewer capacity. Beginning in March 2010, the pilot GETS was operated at 50 gpm, entirely from extraction well EW-02. In December 2011, a synthetic media pilot test was started. The purpose of the synthetic media pilot test was to evaluate the efficacy of treating water collected from extraction well MW-21 (a relatively high-concentration extraction well) using a synthetic media for contaminant removal. In order to conduct the synthetic media pilot test, extraction wells EW-02 and MW-21 were operated at approximately 40 gpm and 10 gpm, respectively. The synthetic media pilot test was completed in March 2012, and operation of the pilot GETS was restored to 50 gpm entirely from extraction well EW-02. A second phase of pilot GETS expansion took place between March 2014 and August 2014 in order to incorporate extraction well MW-29 into the extraction well network as well as replacing an advanced oxidation unit that used ozone and hydrogen peroxide with a UV Ox system. Extraction wells EW-01 and MW-21 are on standby for the current phase of pilot testing, but are planned to be used as part of the full scale pump-and-treat system.

During the third quarter of 2020, the pilot GETS was operational greater than 99 percent of the available runtime and approximately 4.9 million gallons of groundwater were treated and discharged to the sanitary sewer (Table 4). The average operational monthly discharge flowrate to the sanitary sewer from June to August 2020 was approximately 37.8 gpm. Since startup of the pilot GETS, approximately 202 million gallons of groundwater have been treated at an average operational flowrate of 41 gpm through the end of August 2020 (Table 4).

Current monthly and quarterly pilot GETS monitoring activities include collecting groundwater samples from extraction wells EW-02 and MW-29 in addition to collecting samples at treatment system sampling ports: Influent, Post-Particulate-Filter, Post-UV-Ox, Carbon-Breakthrough, and Carbon-Effluent (Tables 5 and 6; Figures 4 and 5). Samples collected during these activities were transmitted to ATL for analysis in accordance with chain-of-custody procedures. Analytical results of the extraction wells and treatment system sampling have been summarized (Table 6; Appendix B).

The UV Ox advanced oxidation treatment unit is designed to remove 1,4-dioxane and most VOCs in groundwater. The carbon adsorption units provide a polish following the UV Ox treatment and remove possible low-level VOCs remaining in groundwater post UV Ox (principally low-level ethanes). The UV Ox advanced oxidation and carbon adsorption treatment units effectively removed VOCs and 1,4-dioxane from extracted groundwater in the third quarter of 2020. The samples collected from the effluent of the UV Ox treatment unit (Post-UV-Ox) were analyzed for VOCs and 1,4-dioxane, and resulted in non-detect values (Table 6).

The pilot GETS continues to remove VOCs and 1,4-dioxane from extracted groundwater. During the third quarter of 2020, the pilot GETS removed approximately 1.7 pounds of VOCs and 0.9 pounds of 1,4-dioxane from extracted groundwater. Since startup of the pilot GETS in July 2008, approximately 180 pounds of VOCs and 46 pounds of 1,4-dioxane have been removed from groundwater through August 2020 (Figure 7). Operation of the pilot GETS continues to be optimized to maximize the treatment of 1,4-dioxane and VOCs in extracted groundwater.

If you have any questions or require additional information, please contact us at 858-455-6500.

Sincerely,

HARGIS + ASSOCIATES, INC.

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REFERENCES

California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), 2003. Letter to P. Brewer, Raytheon Systems Company, from A. Plaza, DTSC, re: Review of Additional Groundwater Assessment Workplan and Groundwater Monitoring Workplan and Sampling and Analysis Plan. May 20, 2003.

_____, 2011. Email from W. Jeffers, DTSC, re: Conditional Approval of Addendum No. 1 to the Ground Water Monitoring Work Plan, Raytheon Fullerton, dated June 7, 2011.

_____, 2013. Email from W. Jeffers, DTSC, re: Groundwater Extraction and Treatment System Pilot Testing Corrective Measures Study Workplan, Addendum #6, dated April 16, 2013.

Hargis + Associates, Inc. (H+A), 2003. Groundwater Monitoring Work Plan and Sampling and Analysis Plan (Revision 1.0), Raytheon Company (former Hughes Aircraft Company), 1901 West Malvern Avenue, Fullerton, California. April 25, 2003.

_____, 2011a. Letter to W. Jeffers, DTSC, re: Addendum No. 1 to the *Groundwater Monitoring Work Plan and Sampling and Analysis Plan (Revision 1.0)*, by Hargis + Associates, Inc., dated April 25, 2003, for the Raytheon Company, (Former Hughes Aircraft Company), 1901 West Malvern Avenue, Fullerton, California. February 11, 2011.

_____, 2011b. Letter to W. Jeffers, DTSC, re: Amendment A, Addendum No. 1 to the *Groundwater Monitoring Work Plan and Sampling and Analysis Plan (Revision 1.0)*, by Hargis + Associates, Inc., dated April 25, 2003, for the Raytheon Company, (Former Hughes Aircraft Company), 1901 West Malvern Avenue, Fullerton, California. June 16, 2011.

_____, 2013. Groundwater Extraction and Treatment System Pilot Testing, Corrective Measures Study Workplan Addendum No. 6, Raytheon Company (former Hughes Aircraft Company), 1901 West Malvern Avenue, Fullerton, California. February 27, 2013.

Enclosures

Tables

Table 1	Groundwater Monitoring Program
Table 2	Groundwater Levels, Third Quarter 2020
Table 3	Prevalent Volatile Organic Compounds and 1,4-Dioxane in Groundwater, Third Quarter 2020
Table 4	Pilot Groundwater Extraction and Treatment System Operational Summary
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Figure 5	1,1-Dichloroethylene and 1,4-Dioxane Concentrations in Extraction Wells
Figure 6	1,4-Dioxane and Bromate in Influent and Post-Oxidation Samples
Figure 7	Pilot Groundwater Extraction and Treatment System Mass Removal

Appendices

Appendix A	Groundwater Sampling Field Forms (provided on CD in hard copy)
Appendix B	Laboratory Analytical Reports (provided on CD in hard copy)

cc w/encl: (1 copy w-CD)
Mr. Steve Rounds, Department of Toxic Substances Control, Chatsworth
Mr. Paul Pongetti, Department of Toxic Substances Control, Cypress
Mr. Dave Mark, Orange County Water District
Mr. Eric Silvers, Regency Centers

(2 copies w-CD)
Mr. Louis Gonzales, City of Fullerton

(via CD)
Ms. Tiffany Foo, City of Fullerton
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TABLES

TABLE 1
GROUNDWATER MONITORING PROGRAM

WELL IDENTIFIER	HYDROGEOLOGIC ZONE	SAMPLED AUG 2020	SAMPLING FREQUENCY			
			QUARTERLY FEB, MAY, AUG, NOV	SEMIANNUAL FEBRUARY, AUGUST	ANNUAL FEBRUARY	BIENNIAL FEB (EVEN YEARS)
P-07	Perched				VOCs; 1,4-Dioxane	
P-09	Perched				VOCs; 1,4-Dioxane	
MW-35A	Other					VOCs; 1,4-Dioxane
MW-17	A		PIEZOMETER - WATER LEVEL MEASUREMENT ONLY			
MW-18	A	X		VOCs; 1,4-Dioxane		
MW-19	A					VOCs
MW-22	A					VOCs; 1,4-Dioxane
MW-23	A					VOCs
MW-34A	A			VOCs; 1,4-Dioxane		
MW-35B	A					VOCs; 1,4-Dioxane
MW-38	A				VOCs; 1,4-Dioxane	
MW-13	AB				VOCs; 1,4-Dioxane	
MW-15	AB	X		VOCs		
MW-26A	AB		PIEZOMETER - WATER LEVEL MEASUREMENT ONLY			
MW-26B	AB		PIEZOMETER - WATER LEVEL MEASUREMENT ONLY			
MW-32A	AB	X		VOCs; 1,4-Dioxane		
EW-01	B	X	VOCs; 1,4-Dioxane			
EW-02*	B	X	VOCs; 1,4-Dioxane			
MW-16	B	X		VOCs; 1,4-Dioxane		
MW-26C	B	X	VOCs; 1,4-Dioxane			
MW-27	B				VOCs; 1,4-Dioxane	
MW-28	B	X	VOCs; 1,4-Dioxane			
MW-29*	B	X	VOCs; 1,4-Dioxane			
MW-30A	B	X	VOCs; 1,4-Dioxane			
MW-31	B	X	VOCs; 1,4-Dioxane			
MW-32B	B	X	VOCs; 1,4-Dioxane			
MW-33	B	X	VOCs; 1,4-Dioxane			
MW-34B	B	X	VOCs; 1,4-Dioxane			
MW-35C	B	X	VOCs; 1,4-Dioxane			
MW-36	B	X	VOCs; 1,4-Dioxane			
MW-39	B	X	VOCs; 1,4-Dioxane			
MW-40	B	X	VOCs; 1,4-Dioxane			
MW-41	B	X	VOCs; 1,4-Dioxane			
MW-42	B	X	VOCs; 1,4-Dioxane			
MW-43	B	X	VOCs; 1,4-Dioxane			
MW-21	BC	X	VOCs; 1,4-Dioxane			
MW-08	BC	X	VOCs; 1,4-Dioxane			
MW-30B	BC	X	VOCs; 1,4-Dioxane			
MW-34C	BC	X		VOCs; 1,4-Dioxane		
MW-09	C	X		VOCs; 1,4-Dioxane		
MW-24	C				VOCs; 1,4-Dioxane	
MW-32C	C	X		VOCs; 1,4-Dioxane		
MW-06	D				VOCs	
MW-20	D	X		VOCs; 1,4-Dioxane		
MW-25	D		WATER LEVEL MEASUREMENT ONLY			
MW-37	D				VOCs; 1,4-Dioxane	

FOOTNOTES:

Groundwater Monitoring Program 2014/2015 Letter (Hargis + Associates, Inc., 2015)

* = Extraction well monitored monthly as part of the Groundwater Extraction and Treatment System Pilot Testing

VOCs = volatile organic compounds

TABLE 2
GROUNDWATER LEVELS
THIRD QUARTER 2020

Well Identifier	Date Measured	Reference Point Elevation [(a)] (feet msl)	Depth to Water (feet btoc)	Water Level Elevation (feet msl)	Remediation System On
Regional Groundwater System Monitor and Extraction Wells					
MW-06	08/03/20	184.70	150.31	34.39	
MW-08	08/03/20	155.91	127.84	28.07	
MW-09	08/03/20	180.10	149.01	31.09	
MW-13	08/03/20	141.84	122.38	19.46	
MW-15	08/03/20	144.95	125.83	19.12	
MW-16	08/03/20	142.40	118.13	24.27	
MW-17	08/03/20	142.70	122.31	20.39	
MW-18	08/03/20	142.32	122.76	19.56	
MW-19	08/03/20	142.06	122.34	19.72	
MW-20	08/03/20	184.19	145.66	38.53	
MW-21	08/03/20	141.18	112.03	29.15	
MW-22	08/03/20	138.65	119.06	19.59	
MW-23	08/03/20	137.33	119.35	17.98	
MW-24	08/03/20	142.83	111.76	31.07	
MW-25	08/03/20	142.64	112.48	30.16	
MW-26A	08/03/20	137.04	117.03	20.01	
MW-26B	08/03/20	137.05	117.71	19.34	
MW-26C	08/03/20	137.22	114.30	22.92	
MW-27	08/03/20	137.16	113.89	23.27	
MW-28	08/03/20	140.77	117.92	22.85	
MW-29	06/05/20	139.81	161.03	-21.22	Pilot GETS
MW-29	06/18/20	139.81	159.21	-19.40	Pilot GETS
MW-29	07/02/20	139.81	157.52	-17.71	Pilot GETS
MW-29	07/16/20	139.81	144.82	-5.01	Pilot GETS
MW-29	08/03/20	139.81	153.41	-13.60	Pilot GETS
MW-29	08/06/20	139.81	153.91	-14.10	Pilot GETS
MW-29	08/20/20	139.81	166.66	-26.85	Pilot GETS
MW-30A	08/03/20	129.44	107.69	21.75	
MW-30B	08/03/20	129.39	105.72	23.67	
MW-31	08/03/20	119.60	97.36	22.24	
MW-32A	08/03/20	92.88	72.57	20.31	
MW-32B	08/03/20	92.89	71.71	21.18	

TABLE 2
GROUNDWATER LEVELS
THIRD QUARTER 2020

Well Identifier	Date Measured	Reference Point Elevation [(a)] (feet msl)	Depth to Water (feet btoc)	Water Level Elevation (feet msl)	Remediation System On
Reginal Groundwater System Monitor and Extraction Wells (continued)					
MW-32C	08/03/20	92.88	64.45	28.43	
MW-33	08/03/20	83.19	63.83	19.36	
MW-34A	08/03/20	153.25	141.02	12.23	
MW-34B	08/03/20	153.11	131.81	21.30	
MW-34C	08/03/20	153.29	131.74	21.55	
MW-35A	08/03/20	93.57	76.71	16.86	
MW-35B	08/03/20	93.56	80.14	13.42	
MW-35C	08/03/20	93.55	73.31	20.24	
MW-36	08/03/20	86.65	67.80	18.85	
MW-37	08/03/20	155.60	129.43	26.17	
MW-38	08/03/20	154.90	145.60	9.30	
MW-39	08/03/20	84.25	66.11	18.14	
MW-40	08/03/20	123.40	99.28	24.12	
MW-41	08/03/20	155.60	134.73	20.87	
MW-42	08/03/20	82.80	64.79	18.01	
MW-43	08/03/20	76.64	59.10	17.54	
EW-01	08/03/20	141.07	116.46	24.61	
EW-02	06/05/20	132.97	114.22	18.75	Pilot GETS
EW-02	06/18/20	132.97	114.82	18.15	Pilot GETS
EW-02	07/02/20	132.97	114.79	18.18	Pilot GETS
EW-02	07/16/20	132.97	114.72	18.25	Pilot GETS
EW-02	08/03/20	132.97	115.33	17.64	Pilot GETS
EW-02	08/06/20	132.97	115.28	17.69	Pilot GETS
EW-02	08/20/20	132.97	117.04	15.93	Pilot GETS
Perched Zone Water Levels					
P-07	08/03/20	142.31	111.07	31.24	
P-09	08/03/20	183.86	120.61	63.25	

FOOTNOTES:

[(a)] Reference point elevations are relative to City of Fullerton datum.

btoc = Below top of casing

msl = Mean sea level

Pilot GETS = Pilot Groundwater Extraction and Treatment System On

TABLE 3

PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER
THIRD QUARTER 2020

Concentration (micrograms per liter)

Well Identifier / Sample Identifier	Date Sampled	QA Code	VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL) Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (5/0.5)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toluene (1,000/150)	Semi-VOCs 1,4-Dioxane (3*/1**)
Regional Groundwater System Monitor and Extraction Wells																
MW-08	08/05/2020	ORG	< 0.50	< 0.50	**0.40 J**	< 0.50	< 0.50	**23**	**2.5**	**0.11 J**	< 0.50	< 0.50	**56**	< 0.50	< 0.50	**2.1**
MW-08 Historical Range* **			< 0.50 - 0.95	< 0.50 - 0.50	< 0.50 - 0.86	< 0.50 - 5.1	< 0.50 - 0.99	< 0.50 - 500	< 0.50 - 13	< 0.50 - 2.6	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 480	< 0.50 - 1.0	< 0.50 - 2.3	< 0.20 - 130
MW-09	08/04/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**0.41 J**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-09 Historical Range* **			< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 0.79	< 0.50 - < 5.0	< 0.50 - 4.9	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 0.96	< 0.50 - 5.3	< 0.50 - < 5.0	< 0.20 - 52 E
MW-15	08/05/2020	ORG	< 0.50	< 0.50	**0.22 J**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**3.2**	**13**	< 0.50	NA
MW-15 Historical Range* **			< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 0.22 J	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 12	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 7.8	< 0.50 - 20	< 0.50 - < 5.0	< 0.50 - < 2.0
MW-16	08/05/2020	ORG	< 0.50	**0.32 J**	**0.47 J**	**3.7**	**0.41 J**	**590**	**0.28 J**	**0.80**	< 0.50	**0.66**	**3.5**	< 0.50	< 0.50	**62**
MW-16 Historical Range* **			< 0.50 - < 5.0	< 0.50 - 0.58	< 0.50 - 1.1	< 0.50 - 18	< 0.50 - 4.5	49 - 1,900	< 0.50 - 0.57	< 0.50 - 2.9	< 0.50 - 28 E	< 0.50 - 10	< 0.50 - 7.8	< 0.50 - < 5.0	< 0.50 - < 5.0	< 2.0 - 440
MW-18	08/04/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**0.57**	< 0.50	< 0.20
MW-18 Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 0.51	< 0.50 - 1.2	< 0.50 - 0.12 J	< 0.50	< 0.50	< 0.50	< 0.50 - 6.3	< 0.50 - 0.82	< 0.20 - 7.7 E
MW-20	08/04/2020	ORG	< 0.50	< 0.50	**1.5**	< 0.50	< 0.50	**0.93**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
Historical High/Low					**High**											
MW-20 Historical Range* **			< 0.50	< 0.50	< 0.50 - 1.1	< 0.50	< 0.50	< 0.50 - 82	< 0.50	< 0.50 - 0.14 J	< 0.50 - 0.63	< 0.50	< 0.50	< 0.50 - 0.58	<0.50 - 0.22 J	< 0.20 - 3.9
MW-21[(1)]	08/06/2020	ORG	< 0.50	**0.60**	**2.0**	**29**	**4.9**	**1,600**	**1.3**	**4.5**	< 0.50	**14**	**14**	**0.31 J**	< 0.50	**700**
MW-21 Historical Range* **			< 0.50 - < 25	< 0.50 - 1.9	< 0.50 - 4.6	< 0.50 - 71	< 0.50 - 8.9	200 - 4,900	< 0.50 - 2.4	< 0.50 - 12	< 0.50 - 2.0	< 0.50 - 27	0.96 - 46	< 0.50 - 0.53	< 0.50 - < 10	11 - 1,100
MW-26C	08/04/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-26C Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50 - 1.7	< 0.50	< 0.50 - 120	< 0.50	< 0.50 - 0.79	< 0.50	< 0.50 - 0.77	< 0.50	< 0.50	< 0.50 - 22	< 0.20 - 57
MW-28	08/04/2020	ORG	< 0.50	< 0.50	**0.13 J**	< 0.50	< 0.50	**0.38 J**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-28 Historical Range* **			< 0.50	< 0.50	< 0.50 - 0.20 J	< 0.50 - 0.94	< 0.50	< 0.50 - 76 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - 19
MW-29	06/05/2020	ORG	< 0.50	< 0.50	< 0.50	**1.5**	< 0.50	**140**	< 0.50	< 0.50	< 0.50	**0.70**	**1.6**	**0.57**	< 0.50	**91**
MW-29	06/18/2020	ORG	< 0.50	< 0.50	< 0.50	**1.5**	< 0.50	**150**	< 0.50	**0.51**	< 0.50	**0.62**	**1.4**	**0.69**	< 0.50	**83**
MW-29	07/02/2020	ORG	< 0.50	< 0.50	< 0.50	**1.4**	< 0.50	**150**	< 0.50	**0.52**	< 0.50	**0.51**	**1.6**	< 0.50	< 0.50	**78**
MW-29	07/16/2020	ORG	< 0.50	< 0.50	< 0.50	**1.4**	< 0.50	**140**	< 0.50	< 0.50	< 0.50	< 0.50	**1.2**	**0.63**	< 0.50	**83**
MW-29	08/06/2020	ORG	< 0.50	< 0.50	< 0.50	**1.4**	< 0.50	**140**	< 0.50	< 0.50	< 0.50	< 0.50	**1.4**	**0.63**	< 0.50	**78**
MW-29	08/20/2020	ORG	< 0.50	< 0.50	< 0.50	**1.3**	< 0.50	**130**	< 0.50	**0.58**	< 0.50	< 0.50	**1.5**	**0.57**	< 0.50	**75**
MW-29 Historical Range* **			< 0.50 - 0.57	< 0.50 - < 5.0	< 0.50 - 0.80	< 0.50 - 9.2	< 0.50 - 1.4	99 - 900 E	< 0.50 - 0.61	< 0.50 - 6.6	< 0.50 - < 5.0	< 0.50 - 2.3	< 0.50 - 8.3	< 0.50 - 2.2	< 0.50 - < 5.0	26 BE - 301
MW-30A	08/06/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**0.36 J**	< 0.50	< 0.50	< 0.20
MW-30A Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50 - 2.9	< 0.50 - 0.67	< 0.50 - 270	< 0.50	< 0.50 - 0.58	< 0.50	< 0.50 - 1.1	< 0.50 - 1.9	< 0.50	< 0.50	< 0.20 - 95
MW-30B	08/06/2020	ORG	< 0.50	< 0.50	**0.40 J**	**0.15 J**	< 0.50	**20**	**5.0**	< 0.50	< 0.50	< 0.50	**92**	< 0.50	< 0.50	**0.38**
MW-30B Historical Range* **			< 0.50	< 0.50	< 0.50 - 0.77	< 0.50	< 0.50	< 0.50 - 28	< 0.50 - 8.2	< 0.50 - 0.51	< 0.50	< 0.50	< 0.50 - 110	< 0.50	< 0.50 - 4.5	< 0.20 - 28 E

TABLE 3

PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER
THIRD QUARTER 2020

Concentration (micrograms per liter)

Well Identifier / Sample Identifier	Date Sampled	QA Code	VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL) Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (5/0.5)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toluene (1,000/150)	Semi-VOCs 1,4-Dioxane (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-31	08/06/2020	ORG	< 0.50	< 0.50	**0.15 J**	**1.2**	< 0.50	**150**	**0.30 J**	**0.19 J**	< 0.50	< 0.50	**6.7**	< 0.50	**0.21 J**	**6.6**
MW-3100	08/06/2020	FD	< 0.50	< 0.50	**0.16 J**	**1.2**	< 0.50	**170**	**0.31 J**	**0.11 J**	< 0.50	< 0.50	**6.5**	< 0.50	**0.38 J**	**6.3**
MW-31[(2)]	08/06/2020	SPT	< 2.0	< 2.0	**0.34 J**	**1.2 J**	< 2.0	**110**	< 2.0	< 2.0	< 2.0	< 2.0	**5.1**	< 2.0	< 2.0	**4.1**
MW-31 Historical Range* **			< 0.50	< 0.50	< 0.50 - 0.58	< 0.50 - 5.0	< 0.50 - 0.51	25 - 430	< 0.50 - 3.0E	< 0.50 - 2.4E	< 0.50	< 0.50 - 1.2	0.50 - 21	< 0.50	< 0.50 - 1.0	< 0.20 - 16
MW-32A	08/04/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32A Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - 1.6
MW-32B	08/05/2020	ORG	< 0.50	< 0.50	< 0.50	**0.56**	< 0.50	**52**	**1.4**	< 0.50	< 0.50	< 0.50	**13**	< 0.50	< 0.50	**1.7**
MW-3200B	08/05/2020	FD	< 0.50	< 0.50	< 0.50	**0.48 J**	< 0.50	**52**	**1.4**	< 0.50	< 0.50	< 0.50	**13**	< 0.50	< 0.50	**1.7**
MW-32	08/05/2020	SPT	< 0.50	< 0.50	< 0.50	**0.40 J**	< 0.50	**41**	**1.4**	< 0.50	< 0.50	< 0.50	**12**	< 0.50	< 0.50	**1.7**
Historical High/Low									**Low**				**Low**			
MW-32B Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50 - 3.6	< 0.50	16 - 290	1.6 - 7.9	< 0.50	< 0.50	< 0.50	14 - 75	< 0.50	< 0.50	< 2.0 - 8.0
MW-32C	08/04/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C Historical Range* **			< 0.50	< 0.50	< 0.50 - 0.24 J	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 0.56	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - 1.0
MW-33	08/04/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**3.3**	< 0.50	< 0.50	< 0.50	< 0.50	**0.40 J**	< 0.50	< 0.50	< 0.20
MW-33 Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 12	< 0.50	< 0.50 - 0.32 J	< 0.50	< 0.50	< 0.50 - 2.0	< 0.50	< 0.50 - 1.4	< 0.20 - 0.22
MW-34B	08/06/2020	ORG	< 0.50	< 0.50	< 0.50	**0.55**	< 0.50	**54**	< 0.50	**0.17 J**	< 0.50	< 0.50	**0.21 J**	< 0.50	< 0.50	**13**
MW-34B Historical Range* **			< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 0.50	< 0.50 - 9.8	< 0.50 - 1.4	20 E - 1,100	< 0.50 - < 5.0	< 0.50 - 1.1	< 0.50 - 1.0	< 0.50 - 2.6	< 0.50 - 2.1	< 0.50 - < 5.0	< 0.50 - 2.6	< 2.0 E - 196
MW-34C	08/06/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34C Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 9.6	< 0.20 - < 2.0
MW-35C	08/05/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C Historical Range* **			< 0.50	< 0.50	< 0.50 - 120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - 0.06 J
MW-36	08/05/2020	ORG	< 0.50	< 0.50	**0.11 J**	**0.58**	< 0.50	**60**	< 0.50	< 0.50	< 0.50	< 0.50	**0.26 J**	< 0.50	< 0.50	**8.2**
Historical High/Low													**High**			
MW-36 Historical Range* **			< 0.50	< 0.50	< 0.50 - 0.15 J	< 0.50 - 1.9	< 0.50	2.9 - 220	< 0.50	< 0.50	< 0.50	< 0.50 - 0.24 J	< 0.50 - 0.15 J	< 0.50	< 0.50 - 5.9	< 0.20 - 15
MW-39	08/04/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-39 Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 1.4	< 0.20 - < 2.0
MW-40	08/05/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-40 Historical Range* **			< 0.50	< 0.50	< 0.50 - 0.60	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - < 2.0

TABLE 3

PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER
THIRD QUARTER 2020

Concentration (micrograms per liter)

Well Identifier / Sample Identifier	Date Sampled	QA Code	VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL) Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (5/0.5)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toluene (1,000/150)	Semi-VOCs 1,4-Dioxane (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-41	08/06/2020	ORG	< 0.50	< 0.50	**0.73**	< 0.50	< 0.50	**1.1**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**0.24**
MW-41 Historical Range* **			< 0.50	< 0.50	< 0.50 - 0.86	< 0.50 - 1.3	< 0.50	< 0.50 - 130	< 0.50	< 0.50 - 0.20 J	< 0.50	< 0.50 - 0.39 J	< 0.50 - 110	< 0.50	< 0.50	< 0.20 - 18
MW-42	08/05/2020	ORG	< 0.50	< 0.50	< 0.50	**0.46 J**	< 0.50	**31**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**1.4**
MW-4200	08/05/2020	FD	< 0.50	< 0.50	< 0.50	**0.50**	< 0.50	**33**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**1.3**
MW-42	08/05/2020	SPT	< 0.50	< 0.50	< 0.50	**0.41 J**	< 0.50	**28**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**1.3**
Historical High/Low						**High**										
MW-42 Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50-0.41 J	< 0.50	0.41 J - 36	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - 1.5
MW-43	08/05/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-43 Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
EW-01	08/06/2020	ORG	< 0.50	< 0.50	**0.12 J**	**0.38 J**	< 0.50	**25**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**18**
EW-01 Historical Range* **			< 0.50 - 2.0	< 0.50 - 0.55	< 0.50 - 1.2	< 0.50 - 16	< 0.50 - 4.0	< 0.50 - 1,600 E	< 0.50 - 0.52	< 0.50 - 4.3	< 0.50 - < 2.5	< 0.50 - 10	< 0.50 - 3.3	< 0.50 - 0.61	< 0.50 - 4.6	< 2.0 - 990 E
EW-02	06/05/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**14**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**3.7**
EW-02	06/18/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**17**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**8.3**
EW-02	07/02/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**15**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**6.6**
EW-02	07/16/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**12**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**7.4**
EW-02	08/06/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**14**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**8.4**
EW-02	08/20/2020	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**14**	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	**6.4**
EW-02 Historical Range* **			< 0.50	< 0.50	< 0.50	< 0.50 - 1.5	< 0.50	2.3 - 160	< 0.50	< 0.50	< 0.50	< 0.50 - 0.59	< 0.50	< 0.50	< 0.50 - 0.85	< 2.0 - 48
QUALITY ASSURANCE/QUALITY CONTROL SAMPLES																
TB-060520	06/05/2020	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-061820	06/18/2020	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-070220	07/02/2020	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-071620	07/16/2020	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-080420	08/04/2020	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
RB-080420	08/04/2020	RB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
RB-080520[3]	08/05/2020	RB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
TB-080520A	08/05/2020	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-080620A	08/06/2020	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-080520B[4]	08/05/2020	TB-SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-080620B[5]	08/06/2020	TB-SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-082020	08/20/2020	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA

NOTE: Detections are shown in **BOLD** type.

(1) trans-1,2-Dichloroethene was detected at a concentration of 0.20 J ug/l in the original sample for monitor well MW-21 on 08/06/20

(2) 1,1,2-Trichloro-1,2,2-trifluoroethane was detected at a concentration of 0.70 J ug/l in the split sample for monitor well MW-31 on 08/06/20

(3) m,p-Xylene was detected at a concentration of 0.24 J ug/l in the rinsate blank sample RB-080520 on 08/05/20

(4) Methylene Chloride was detected at a concentration of 0.24 J ug/l in the split trip blank sample TB-080520B on 08/05/20

(5) Methylene Chloride was detected at a concentration of 0.055 J ug/l in the split trip blank sample TB-080620B on 08/06/20

TABLE 3

PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER
THIRD QUARTER 2020

Concentration (micrograms per liter)

Well Identifier / Sample Identifier	Date Sampled	QA Code	VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL) Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (5/0.5)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toluene (1,000/150)	Semi-VOCs 1,4-Dioxane (3*/1**)

FOOTNOTES:

1,1-DCA = 1,1-Dichloroethane
1,2-DCA = 1,2-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
cis-1,2-DCE = cis-1,2-Dichloroethene
PCE = Tetrachloroethene
1,1,1-TCA = 1,1,1-Trichloroethane
1,1,2-TCA = 1,1,2-Trichloroethane
TCE = Trichloroethene
TCFM = Trichlorofluoromethane
(<) = Less than; the value is the Limit of Detection for that compound
* = 1,4-Dioxane Action Level of 3 ug/l
** = California Notification Level for 1,4-Dioxane of 1 ug/l
*** = Historical Range determined using original samples exclusively
Semi-VOCs = Semivolatile organic compounds
NA = Not analyzed for constituent
FD = Field duplicate sample
ORG = Original sample
E = Data qualified as Estimated in accordance with quality control criteria.
TB = Trip blank sample
RB = Rinsate blank sample
B = Analyte detected in the associated Method Blank
ug/l = Micrograms per liter
MCL = Maximum Contaminant Level
QA = Quality Assurance
SPT = Split sample
ug/l = micrograms per liter

TABLE 4

PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM OPERATIONAL SUMMARY

OPERATIONAL PERIOD (MONTH/QUARTER/YEAR)	WELLFIELD PRODUCTION[a] (gallons)	AVERAGE DISCHARGE RATE[b] (gpm)	AVERAGE OPERATIONAL DISCHARGE RATE[c] (gpm)	OPERATIONAL HOURS DURING OPERATIONAL PERIOD	HOURS IN OPERATIONAL PERIOD	% OPERATIONAL
2008[d]	3,659,562	13.8	18.2	3,358	4,416	76%
2009	5,787,848	11.0	18.1	5,319	8,760	61%
2010	14,295,261	27.2	46.4	5,131	8,760	59%
2011	20,456,899	38.9	45.8	7,442	8,760	85%
2012[e]	19,378,122	40.2	47.2	6,850	8,040	85%
2013[f]	21,148,029	40.2	45.7	7,713	8,760	88%
2014[g]	7,690,471	14.6	46.8	2,740	8,760	31%
2015[h]	18,019,312	34.3	47.9	6,275	8,760	72%
2016[i]	21,977,404	41.8	44.2	8,284	8,736	95%
2017[j]	18,364,603	34.6	39.8	7,684	8,835	87%
2018[k]	18,144,835	34.5	38.3	7,889	8,760	90%
2019[l]	18,725,398	35.8	40.3	7,737	8,710	89%
December 2019	1,525,727	34.1	39.0	653	746	87%
January 2020	1,939,910	38.6	38.7	836	837	100%
February 2020	1,272,146	31.4	34.9	608	675	90%
Q1 2020	**4,737,783**	**35.0**	**37.7**	**2,096**	**2,258**	**93%**
March 2020	1,516,218	37.8	39.7	636	669	95%
April 2020	1,929,588	38.3	39.0	825	840	98%
May 2020	1,603,929	38.5	39.0	686	695	99%
Q2 2020	**5,049,735**	**38.2**	**39.2**	**2,147**	**2,204**	**97%**
June 2020	1,513,729	38.8	38.9	649	651	100%
July 2020	1,870,920	37.1	37.1	841	841	100%
August 2020	1,509,954	37.7	37.8	667	668	100%
Q3 2020	**4,894,603**	**37.8**	**37.8**	**2,156**	**2,160**	**100%**
SINCE INCEPTION	202,329,865	31.6	40.7	82,821	106,680	78%

FOOTNOTES:

(a) Based on Effluent totalizer readings from CEFF, which also includes relatively small amounts of monitor well purge water from quarterly sampling events, well installations, and aquifer testing.

(b) Total volume of water treated during the operational period divided by the total number of minutes in that operational period.

(c) Total volume of water treated during the operational period divided by the minutes of operation in that operational period.

(d) Operational period beginning 7/1/2008 (first month of system operation).

(e) 2012 Calendar year is from 1/1/2012 through 11/30/2012.

(f) 2013 Calendar year is from 12/1/2012 through 11/30/2013.

(g) 2014 Calendar year is from 12/1/2013 through 11/30/2014.

(h) 2015 Calendar year is from 12/1/2014 through 11/30/2015

(i) 2016 Calendar year is from 12/1/2014 through 11/30/2015

(j) 2017 Calendar year is from 12/1/2014 through 11/30/2015

(k) 2018 Calendar year is from 12/1/2017 through 11/30/2018

(l) 2019 Calendar year is from 12/1/2018 through 11/30/2019

FOOTNOTES (cont'd):

gpm = gallons per minute

CEFF = Carbon effluent

Refer to previous quarterly reports for detail of 2008 thru 2014 operational summary

Treatment of groundwater from EW-02 initiated in 2010

Treatment of groundwater from MW-29 initiated in 2014

TABLE 5

PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLING SCHEDULE

COMPOUND(S) / CONSITITUENT	ANALYTICAL METHOD	SAMPLE CONTAINER	REPORTING DETECTION LIMITS (milligrams per liter)	SAMPLE FREQUENCY AND LOCATION: Daily Samples[1]: Days 1-5 — System Influent (**INF**)	Post-Filter (**PF**)	Post-Oxidation (**POX**)	Carbon Breakthrough (**CBT**)[3]	Post-Carbon (**CEFF**)	Weekly Samples[1]: Weeks 1-4 — System Influent (**INF**)	Post-Filter (**PF**)	Post-Oxidation (**POX**)	Carbon Breakthrough (**CBT**)[3]	Post-Carbon (**CEFF**)	Monthly Samples: Week 5+ — Extraction Wells (**Well ID**)[2]	System Influent (**INF**)	Post-Filter (**PF**)	Post-Oxidation (**POX**)	Carbon Breakthrough (**CBT**)[3]	Post-Carbon (**CEFF**)	Quarterly Samples: Week 1+ — Extraction Wells (**Well ID**)[2]	System Influent (**INF**)	Post-Oxidation (**POX**)	Post-Carbon (**CEFF**)
COMPOUNDS/CONSTITUENTS NORMALLY REQUIRED AS PART OF NPDES OR WDR PERMITS, PURSUANT TO CRWQCB REGION 8 ORDER NO. R8-2003-0085																								
Volatile Organic Compounds	EPA 8260B	3 - 40 mL VOA, HCl	QAPP[4]	X		X	X	X	X		X	X	X		X	X		X	X	X				
1,4-Dioxane	EPA 8270 Modified	1 L Amber	0.002	X					X						X	X								
1,4-Dioxane	EPA 8270 SIM	1 L Amber	0.0002			X					X							X	X	X				
Total Suspended Solids	SM2540D	1 L poly	10														X							
Total Dissolved Solids	SM2540C	125 mL poly	10																		X	X	X	X
SELECTED METALS																								
Dissolved Metals (Iron, Manganese, Calcium, Sodium, Magnesium)	EPA 6010B	500 mL poly	QAPP[4]	(a)																	X	X		
Selenium	EPA 6010B	500 mL poly, HNO_3	QAPP[4]																		X	X		
SELECTED INORGANIC CONSTITUENTS																								
Hydroxide Alkalinity	SM2320B	250 mL poly	2.0	(a)													X	X			X	X		
Bicarbonate Alkalinity	SM2320B	250 mL poly	2.0	(a)													X	X			X	X		
Carbonate Alkalinity	SM2320B	250 mL poly	2.0	(a)													X	X			X	X		
Total Alkalinity	SM2320B	250 mL poly	2.0	(a)													X	X			X	X		
BROMATE EVALUATION																								
Bromate	EPA 317.0	125 mL poly	0.0005			X					X					X		X						
Bromide	EPA 300.0	125 mL poly	0.05	(a)					(a)					X	X									
OTHER CONSTITUENTS/COMPOUNDS																								
Total Organic Carbon	SM5310B	2 - 40 mL VOA, H_2SO_4	3.0	(a)													X	X			X	X		
Anions (Chloride, Sulfate, Nitrate, Nitrite, and Phosphate)	EPA 300.0	125 mL poly	Varies	(a)																	X	X	X	
Chemical Oxygen Demand	EPA 410.4	125 mL amber, H_2SO_4	5.0	(a)																	X	X	X	
UV Absorption (UVA) @254nm	EPA 415.3	250 mL Glass	N/A		(a)												X				X	X	X	
Field Parameters																								
Dissolve Oxygen (DO)	N/A	N/A	N/A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Electrical Conductance (EC)	N/A	N/A	N/A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Redox Potential	N/A	N/A	N/A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Temperature	N/A	N/A	N/A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
pH	N/A	N/A	N/A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Turbidity	N/A	N/A	N/A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Flow-Meter	N/A	N/A	N/A	X				X	X				X	X	X					X				
Residual Hydrogen Peroxide	N/A	N/A	N/A			(a)	(a)	(a)			X	X	X					X	X	X				

TABLE 5

PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLING SCHEDULE

FOOTNOTES:

(a) Only one sample to be collected during sampling period.

1 Daily and weekly samples collected during the first month of operation will be repeated after major modifications to system equipment or operating parameters, as detailed in the Workplan.

2 If more than one extraction well is in operation, combined influent samples will be collected in addition to extraction wellhead samples, with the same sampling schedule as the extraction wellheads.

3 Carbon breakthrough will be collected from the effluent of the first carbon unit in series; when breakthrough of the first unit is detected, the breakthrough sample will be collected from the effluent of the second carbon unit in series.

4 QAPP, Quality Assurance Project Plan, Appendix B of Additional Groundwater Assessment Workplan, Hargis + Associates, Inc., April 25, 2003.

CRWQCB = California Regional Water Quality Control Board, Santa Ana Region 8
NPDES = National Pollutant Discharge Elimination System
WDR = Waste Discharge Requirement
N/A = Not applicable
mL = Milliliter
VOA = Volatile organic analysis
HCl = Hydrochloric acid
HNO_3 = Nitric acid
H_2SO_4 = Sulfuric acid
nm = Nanometers
EPA = U.S. Environmental Protection Agency
SIM = Selected ion monitoring
SM = Standard Method
L = Liter
poly = High density polyethylene bottle
Amber = Amber glass bottle

TABLE 6

SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
THIRD QUARTER 2020

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
1,1,2-Trichloroethane	06/05/20	ug/L	--	0.70	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
(5 ug/L MCL)	06/18/20	ug/L	--	0.62	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/02/20	ug/L	--	0.51	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/16/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/20	ug/L	14	<0.50	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/20/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
1,1-Dichloroethane	06/05/20	ug/L	--	1.5	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
(5 ug/L MCL)	06/18/20	ug/L	--	1.5	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/02/20	ug/L	--	1.4	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/16/20	ug/L	--	1.4	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/20	ug/L	29	1.4	0.38 J	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/20/20	ug/L	--	1.3	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
1,1-Dichloroethene	06/05/20	ug/L	--	140	--	14	43	--	<0.50	<0.50	<0.50
(6 ug/L MCL)	06/18/20	ug/L	--	150	--	17	46	--	<0.50	<0.50	<0.50
	07/02/20	ug/L	--	150	--	15	43	--	<0.50	<0.50	<0.50
	07/16/20	ug/L	--	140	--	12	31	--	<0.50	<0.50	<0.50
	08/06/20	ug/L	1600	140	25	14	36	--	<0.50	<0.50	<0.50
	08/20/20	ug/L	--	130	--	14	38	--	<0.50	<0.50	<0.50
1,2-Dichloroethane	06/05/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
(0.5 ug/L MCL)	06/18/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/02/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/16/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/20	ug/L	4.9	<0.50	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/20/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene	06/05/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
(6 ug/L MCL)	06/18/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/02/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/16/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/20	ug/L	1.3	<0.50	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/20/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
Tetrachloroethene	06/05/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
(5 ug/L MCL)	06/18/20	ug/L	--	0.51	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/02/20	ug/L	--	0.52	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/16/20	ug/L	--	<0.50	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/20	ug/L	4.5	<0.50	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/20/20	ug/L	--	0.58	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
Trichloroethene	06/05/20	ug/L	--	1.6	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
(5 ug/L MCL)	06/18/20	ug/L	--	1.4	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/02/20	ug/L	--	1.6	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	07/16/20	ug/L	--	1.2	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/06/20	ug/L	14	1.4	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50
	08/20/20	ug/L	--	1.5	--	<0.50	<0.50	--	<0.50	<0.50	<0.50
1,4-Dioxane	06/05/20	ug/L	--	91	--	3.7	25	--	<0.20	<0.20	<0.20
(1 ug/L California Notification Level)	06/18/20	ug/L	--	83	--	8.3	21	--	<0.20	<0.20	<0.20
	07/02/20	ug/L	--	78	--	6.6	21	--	<0.20	<0.20	<0.20
	07/16/20	ug/L	--	83	--	7.4	18	--	<0.20	<0.20	<0.20
	08/06/20	ug/L	700	78	18	8.4	20	--	<0.20	<0.20	<0.20
	08/20/20	ug/L	--	75	--	6.4	20	--	<0.20	<0.20	<0.20
Bromide	06/05/20	mg/L	--	0.78	--	0.43	0.47	--	--	--	--
	07/02/20	mg/L	--	0.81	--	0.39	0.48	--	--	--	--
	08/06/20	mg/L	--	0.91	--	0.46	0.56	--	--	--	--
Bromate	06/05/20	ug/L	--	--	--	--	<0.5	--	<0.5	--	--
(10 ug/L MCL)	07/02/20	ug/L	--	--	--	--	<0.5	--	<0.5	--	--
	08/06/20	ug/L	--	--	--	--	<0.5	--	<0.5	--	--
Total Non-Filterable Residue	06/05/20	mg/L	--	--	--	--	--	<1.0	--	--	--
	07/02/20	mg/L	--	--	--	--	--	<1.2	--	--	--
	08/06/20	mg/L	--	--	--	--	--	<3.3	--	--	--
Total Filterable Residue (500 mg/L MCL)	06/05/20	mg/L	--	760	--	620	640	--	640	--	630

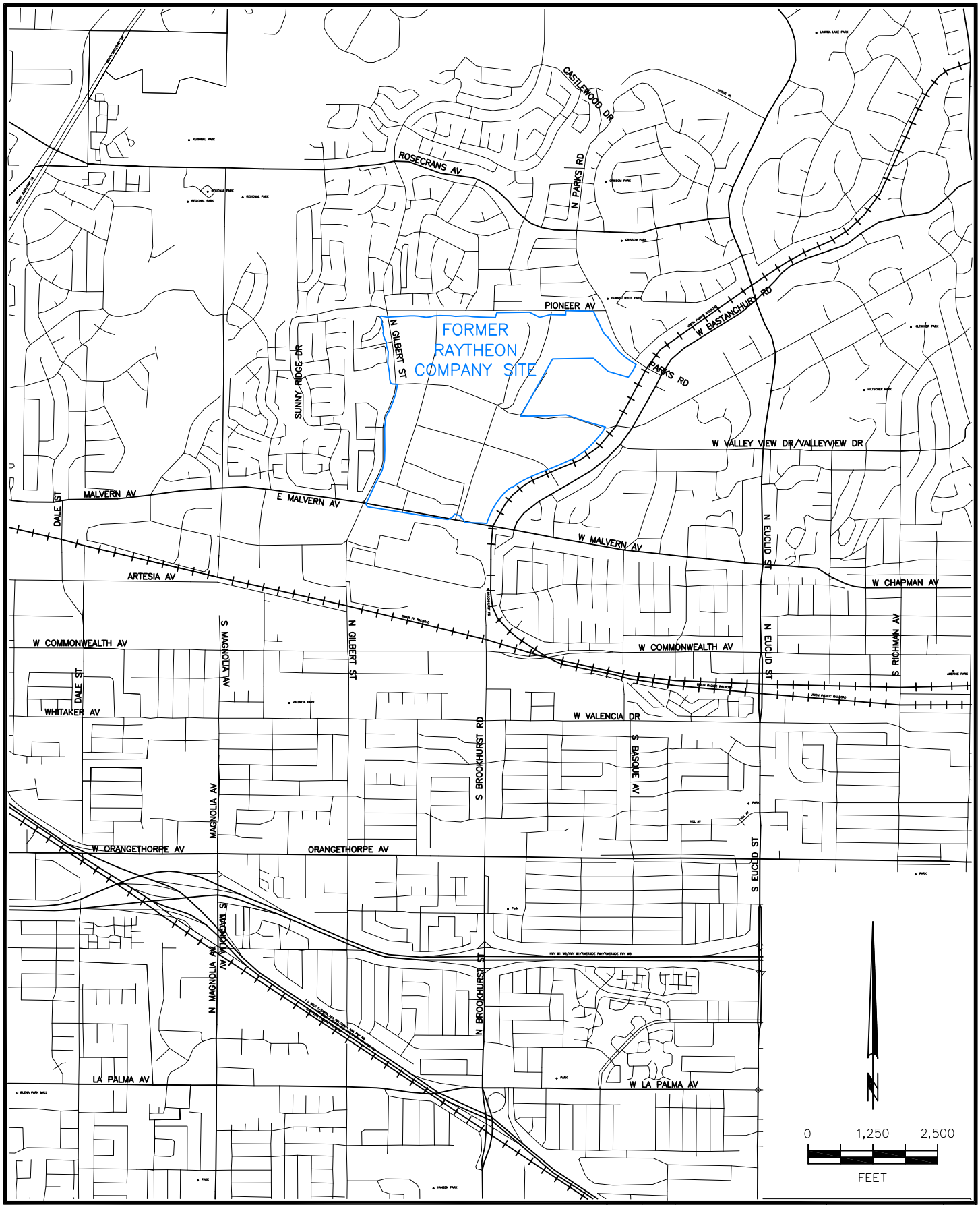
TABLE 6

SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
THIRD QUARTER 2020

Compound	Date	Units	MW-21	MW-29	EW-01	EW-02	INF*	PF	POX	CBT	CEFF

FOOTNOTES:
MCL = Maximum Contaminant Level or Drinking Water Action Level, if applicable
ug/L = Micrograms per liter
mg/L = Milligrams per liter
(--) = Not scheduled for performance monitoring
(<) = Less than; the numerical value is the Limit of Detection for that compound
MW = Monitor Well(s)
EW = Extraction Well(s)
INF* = Influent (same as EW-02, when active)
PF = Post Particulate Filter
POX = Post Hipox Oxidation
CBT = Carbon Breakthrough
CEFF = Carbon Effluent
J = Estimated value; detected at less than the Reporting Limit and greater than or equal to the Method Detection Limit

FIGURES



May 11, 2011 – 10:09am ADE – T:\2011\500-599\532 Raytheon\Hydrogeology\H+A BaseMaps\410-8281.dwg

HARGIS + ASSOCIATES, INC.
Hydrogeology/Engineering

5/11	RPT NO. 532.31	410-8281	A

FIGURE 1. SITE LOCATION

EXPLANATION

- MW-09 — GROUNDWATER MONITOR WELL
- MW-25 — GROUNDWATER PIEZOMETER
- P-09 — PERCHED ZONE PIEZOMETER
- EW-01 — GROUNDWATER EXTRACTION WELL
- MW-10 — FORMER GROUNDWATER MONITOR WELL (ABANDONED)
- P-04 — FORMER PERCHED ZONE PIEZOMETER (ABANDONED)
- DPE-05 — FORMER PERCHED ZONE DUAL-PHASE EXTRACTION WELL (ABANDONED)
- EB-01 — FORMER GROUNDWATER ASSESSMENT SOIL BORING (ABANDONED)
- PGETS — PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM FACILITY COMPOUND
- 609 — FORMER RAYTHEON BUILDING, DEMOLISHED MID-2000
- CURRENT RESIDENTIAL AND COMMERCIAL BUILDINGS
- DRIVEWAYS, PARKING LOTS AND OTHER HARDSCAPE OF SITE RE-DEVELOPMENT
- SITE BOUNDARY

MW-41 MW-37 MW-38 MW-34 MW-39 MW-36 MW-32 MW-33 MW-40 MW-43 MW-42 MW-35 MW-31 MW-08 MW-29 MW-15 MW-30 MW-23 MW-28 MW-26/EB-04 MW-13 MW-18 MW-27 MW-17 MW-19 MW-22 MW-12 MW-14 MW-11 MW-10 MW-09 MW-07 MW-20 MW-05 MW-06 P-09 P-01 P-03 P-04 P-02 DPE-01 DPE-02 DPE-03 DPE-04 DPE-05 DPE-06 P-07 P-06 EB-01 EB-02 MW-24 MW-21 MW-25/EB-03 EW-01 MW-16 EW-02

SEE DETAIL BELOW

CITY OF FULLERTON WELL NO. 9

OCWD AIRPORT TEST WELL 3S/11W-36A6

COOLING TOWER · 609 · 601 · HUGHES DRIVE · OLD WAY · LIBERO WAY · STARBUCK STREET · NORTH GILBERT STREET · STERN-GOODMAN STREET · CREEKSIDE DR · WINDSONG WAY · SANDBAR DR · W MILLSTREAM DR · WHITEWATER DR · BRAMBLE WAY · N CANDLEWOOD DR · SUNNY RIDGE DR · CARMEL CIR · MONTEREY PL · CYPRESS POINT DR · RAMADA PLAZA · FOXBOROUGH PL · ASHTON PL · BRIGHTON PL · ROXBURY DR · BAYCREST PL · BAYBERRY WAY · WILLIAMSBURG RD · NORTHAMPTON WAY · SHERIDAN RD · NEWCASTLE LN · N SEVILLE PL · BURNING TREE RD · FRANKLIN HILLS DR · JONESBORO WAY · MCCONNBROOK WAY · ROCKLEDGE DRIVE · VESTAVIA AVE · EMERYWOOD DRIVE · LINKS ROAD · KENWOOD AVENUE · MONTICELLO AVENUE · MALVERN AVENUE · BREA CREEK · DALE STREET · LAKEKNOLL DRIVE · MOORE AVENUE · BURNING TREE ROAD · AIRPARK DRIVE · GILBERT STREET · RAYMER AVENUE · PRITCHARD AVENUE · A. T. & S. F. RAILROAD · ARTESIA BLVD · FULLERTON MUNICIPAL AIRPORT

0 250 500 FEET

DETAIL AREA

0 50 100 FEET

Mar 19, 2020 - 4:21pm ESS - T:\2020\500-599\532 Raytheon\Hydrogeology\H+A Basemaps\410-10225.dwg

HARGIS + ASSOCIATES, INC.
Hydrogeology/Engineering

03/20	RPT NO. 532.31	410-10225	A

FIGURE 2.
WELL AND PIEZOMETER LOCATIONS

EXPLANATION

- MW-16 — GROUNDWATER MONITOR WELL
- EW-01 — GROUNDWATER EXTRACTION WELL
- 24.27 — WATER LEVEL ELEVATION (FEET MEAN SEA LEVEL)
- 590/62/3.5 — CONCENTRATION OF 1,1-DICHLOROETHYLENE/1,4-DIOXANE/TRICHLOROETHYLENE IN GROUNDWATER (MICROGRAMS PER LITER)
- 24 — EQUAL WATER LEVEL ELEVATION CONTOUR
- 609 — FORMER RAYTHEON BUILDING, DEMOLISHED MID-2000
- CURRENT RESIDENTIAL AND COMMERCIAL BUILDINGS
- DRIVEWAYS, PARKING LOTS AND OTHER HARDSCAPE OF SITE RE-DEVELOPMENT
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW, AUGUST 2020 (COLLECTED ON AUGUST 3, 2020)
- * — EXTRACTION WELLS EW-02 AND MW-29 PUMPING DURING WATER LEVEL GAUGING; ESTIMATED WATER LEVEL BASED ON THIEM EQUATION
- NS — NOT SAMPLED

LOS COYOTES COUNTRY CLUB

APPROXIMATE SATURATED EXTENT OF UNIT B

MW-41
20.87
1.1/0.24/<0.50

MW-34B
21.30
54/13/0.21J

MW-29*
21.32
140/78/1.4

MW-28
22.85
0.38J/<0.20/<0.50

MW-16
24.27
590/62/3.5

EW-01
24.61
25/18/<0.50

EW-02*
20.17
14/8.4/<0.50

MW-30A
21.75
<0.50/<0.20/0.36J

MW-27
23.27
NS

MW-26C
22.32
<0.50/<0.20/<0.50

MW-31
22.24
150/8.6/6.7

MW-32B
21.18
52/1.7/13

MW-33
19.36
3.3/<0.20/0.40J

MW-36
18.85
60/8.2/0.26J

MW-39
18.14
<0.50/<0.20/<0.50

MW-40
24.12
<0.50/<0.20/<0.50

MW-35C
20.24
<0.50/<0.20/<0.50

MW-42
18.01
31/1.4/<0.50

MW-43
17.54
<0.50/<0.20/<0.50

CITY OF FULLERTON WELL NO. 9

OCWD AIRPORT TEST WELL 3S/11W-36A6

0 250 500
FEET
NOTE: NAD83 DATUM

Sep 25, 2020 - 3:25pm ESS - T:\2020\500-599\532 Raytheon\Hydrogeology\Water Lvl\220-2533.dwg

HARGIS + ASSOCIATES, INC.
Hydrogeology/Engineering

09/20 | RPT NO. 532.31 | 220-2533 | A

FIGURE 3.
WATER LEVEL AND WATER QUALITY UNIT B
AUGUST 2020

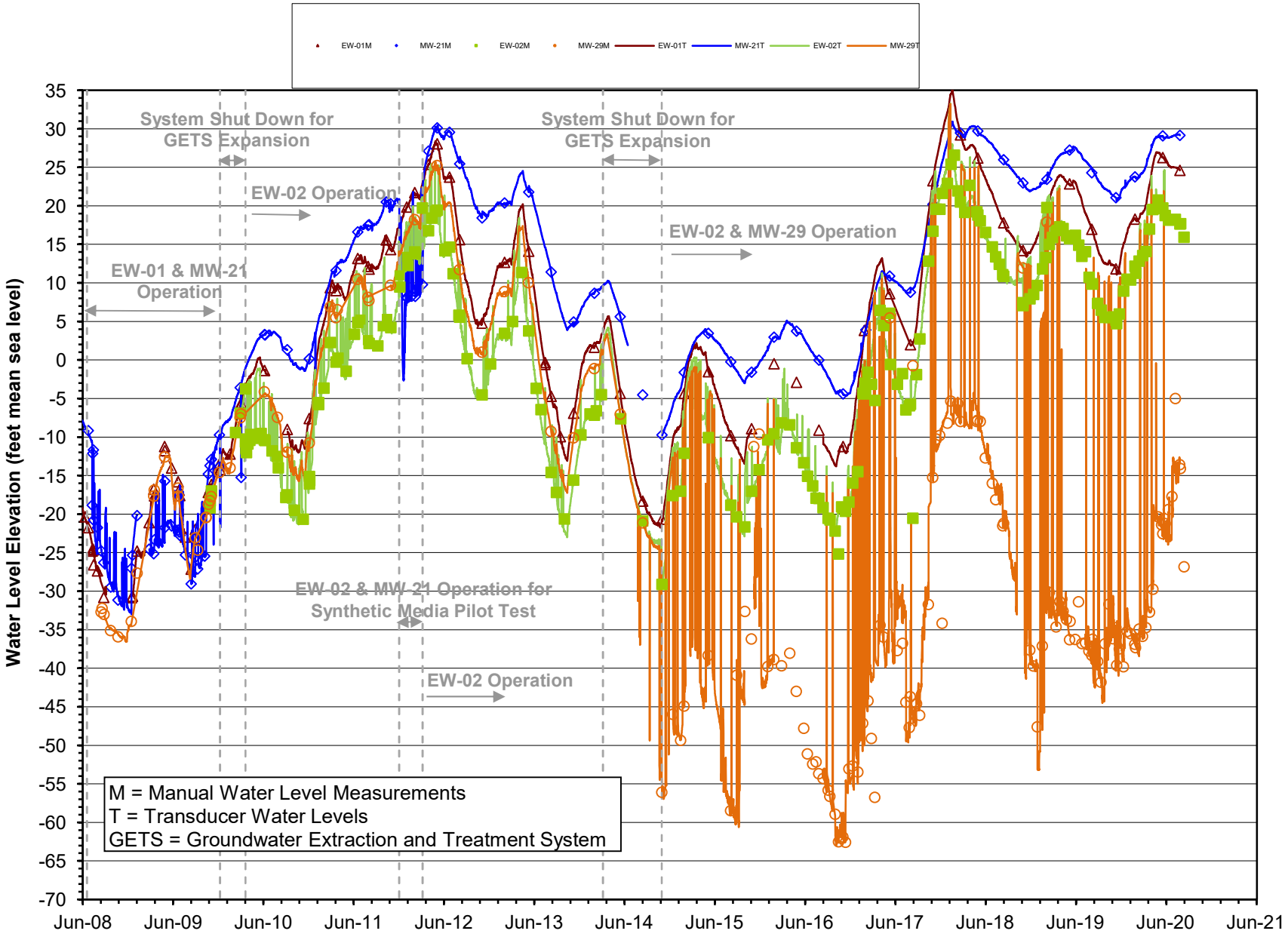


FIGURE 4.
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM OPERATION AND EXTRACTION WELL WATER LEVELS

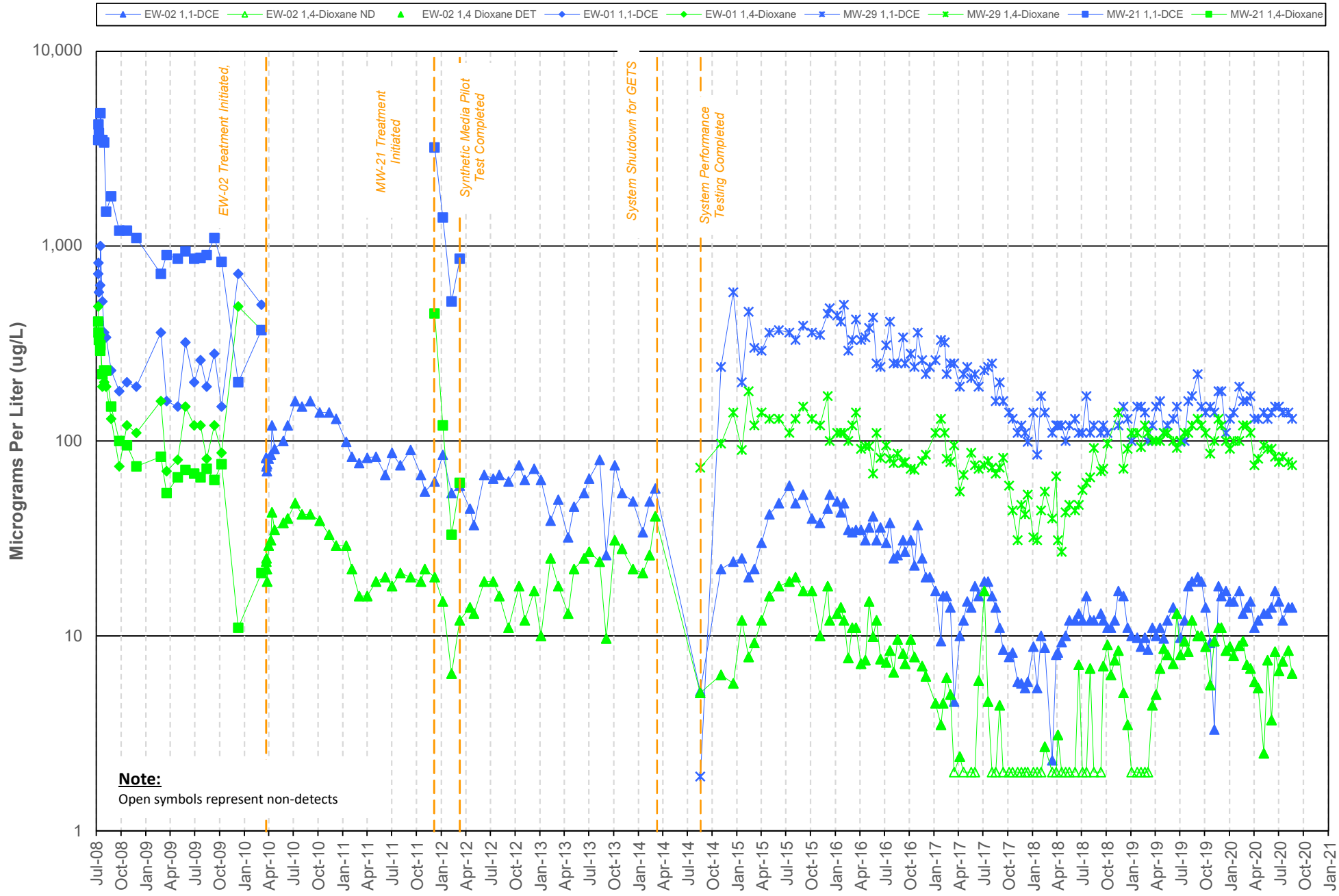
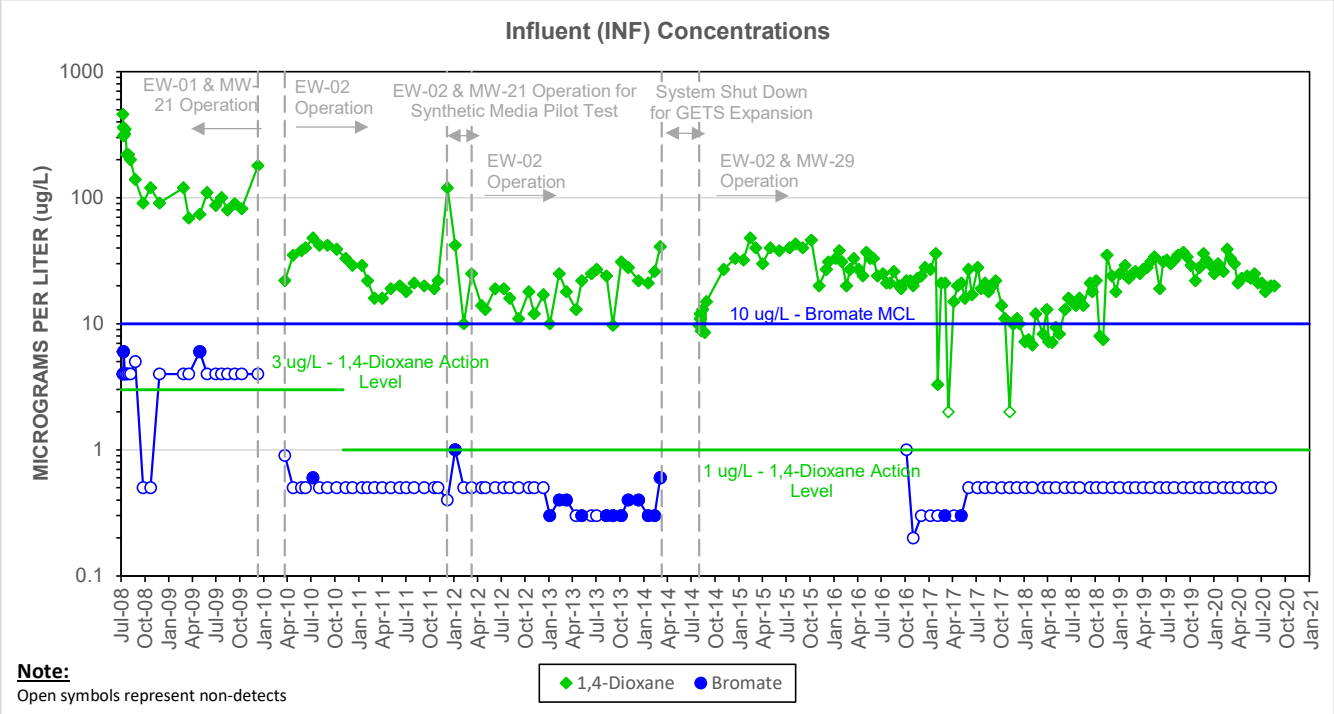
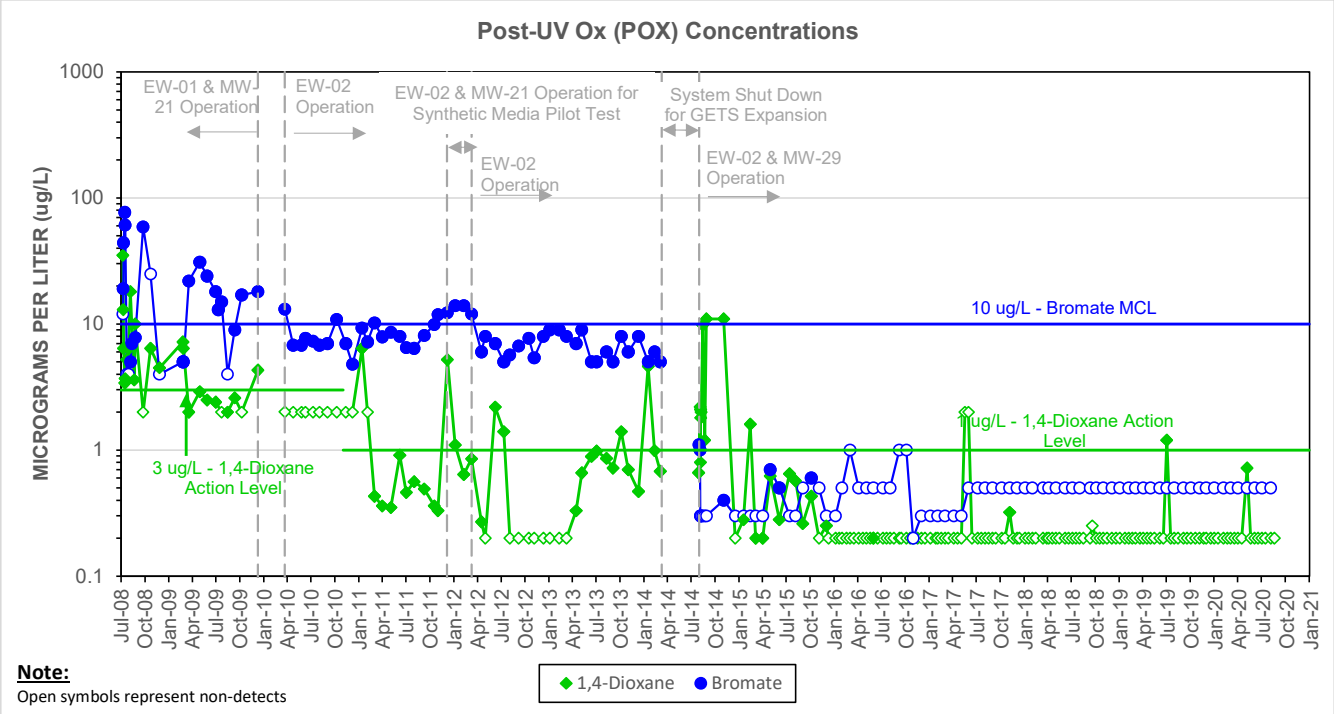


FIGURE 5.
1,1-DICHLOROETHYLENE AND 1,4-DIOXANE CONCENTRATIONS IN EXTRACTION WELLS



Note:
Open symbols represent non-detects



Note:
Open symbols represent non-detects

FIGURE 6.
1,4-DIOXANE AND BROMATE IN INFLUENT AND POST-OXIDATION SAMPLES

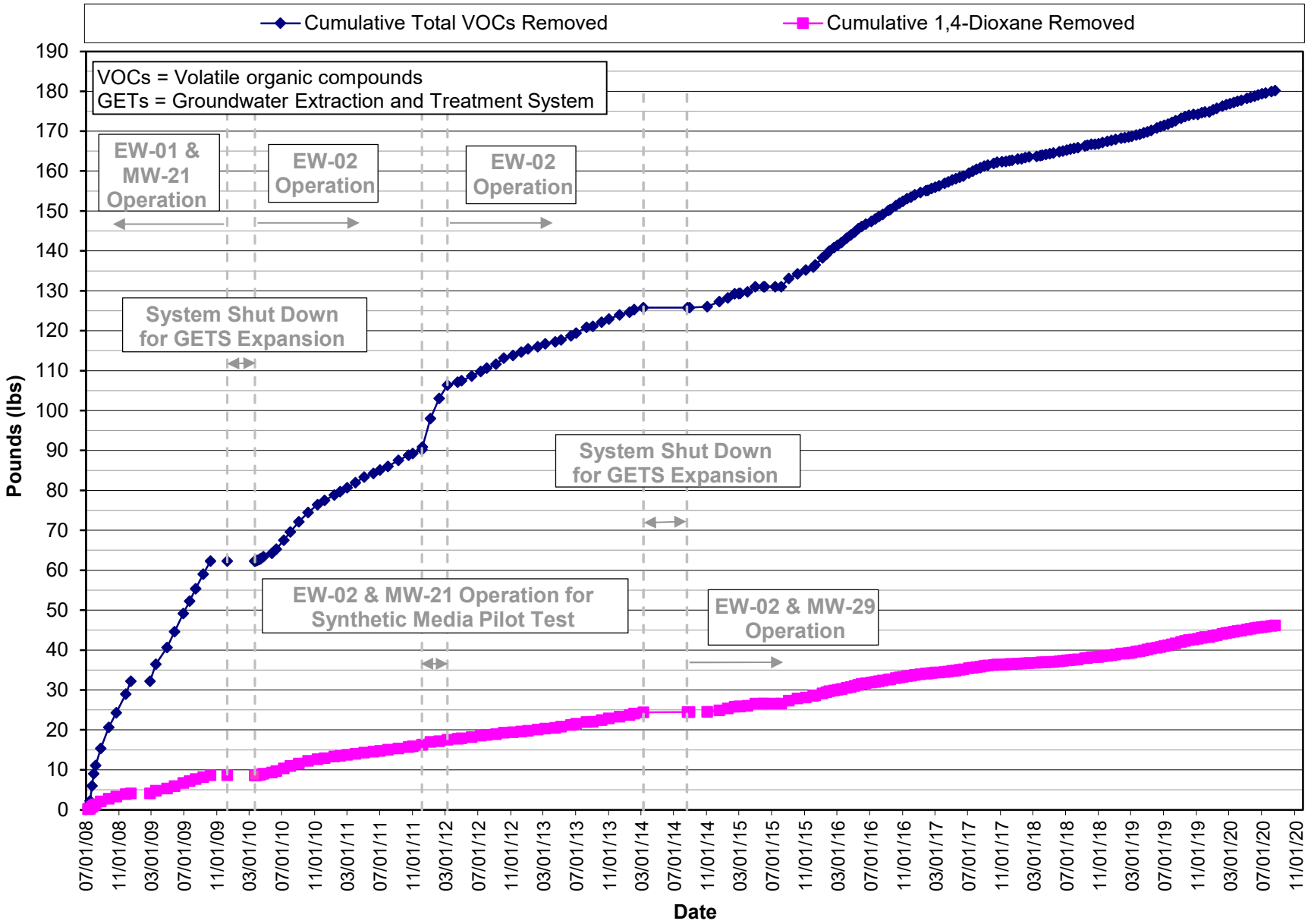


FIGURE 7.
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM MASS REMOVAL

APPENDIX A

GROUNDWATER SAMPLING FIELD FORMS

AUG 2020

SCANNED
8/11/20

QUARTERLY GROUNDWATER MONITORING

FIELD NOTEBOOK

LOW VOLUME MONITOR WELLS

RAYTHEON COMPANY

532.30

1901 MALVERN AVE.
FULLERTON, CALIFORNIA

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

HARGIS + ASSOCIATES, INC.

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: August 2020

METHOD OF MEASUREMENT/SOUNDER IDENTIFIER: **FLAT TAPE ELECTRIC SOUNDER #_____**

PROJECT NUMBER: **532.30**

WELL IDENTIFIER	DATE	TIME	MEASURING POINT	DEPTH TO WATER FROM REFERENCE POINT (+feet)	REFERENCE POINT ELEVATION (ft msl)	WATER LEVEL ELEVATION (ft msl)	May 2020 PREVIOUS DEPTH TO WATER (ft)	CHANGE IN WATER LEVEL (± ft)	COMMENTS	INITIALS
P-07	08/ /20				142.31		111.07			
P-09	08/3/20	0927	TOC	120.70	183.86	63.16	120.61	-0.09		AMD/AMJ
MW-06	08/3/20	0929	TOC	150.31	184.70	34.39	150.84	+0.53		↓
MW-08	08/ /20				155.91		127.86			
MW-09	08/3/20	0917	TOC	149.01	180.10	31.09	149.38	+ 0.37		AMD/AMJ
MW-13	08/3/20	0852	TOC	122.38	141.84	19.46	117.87	-4.51		↓
MW-15	08/ /20				144.95		126.66			
MW-16	08/ /20				142.40		116.40			
MW-17	08/3/20	0909	TOC	122.31	142.70	20.39	117.81	-4.5		AMD/AMJ
MW-18	08/3/20	0900	TOC	122.76	142.32	19.56	118.23	-4.53		↓
MW-19	08/3/20	0910	TOST	122.34	142.06	19.72	117.85	-4.49		↓
MW-20	08/3/20	0940	TOC	145.66	184.19	38.53	146.82	+1.16		↓
MW-21	08/ /20				141.18		112.09		Totalizer: Pumping?	
MW-22	08/3/20	0812	TOST	119.06	138.65	19.59	114.55	-4.51		AMD/AMJ
MW-23	08/3/20	0842	TOST	119.35	137.33	17.98	114.66	-4.69		↓
MW-24	08/ /20				142.83		112.00			
MW-25	08/ /20				142.64		112.60			
MW-26A	08/3/20	0835	TOC	117.03	137.04	20.01	116.20	-0.83		AMD/AMJ
MW-26B	08/3/20	0837	TOC	117.71	137.05	19.34	118.71	+ 1		↓
MW-26C	08/3/20	0831	TOC	114.30	137.22	22.92	112.31	-1.99		↓

msl = Mean sea level
ft = feet

HARGIS + ASSOCIATES, INC.

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: August 2020

METHOD OF MEASUREMENT/SOUNDER IDENTIFIER: **FLAT TAPE ELECTRIC SOUNDER #_____**

PROJECT NUMBER: **532.30**

WELL IDENTIFIER	DATE	TIME	MEASURING POINT	DEPTH TO WATER FROM REFERENCE POINT (+feet)	REFERENCE POINT ELEVATION (ft msl)	WATER LEVEL ELEVATION (ft msl)	May 2020 PREVIOUS DEPTH TO WATER (ft)	CHANGE IN WATER LEVEL (± ft)	COMMENTS	INITIALS
MW-27	08/ 3 /20	0816	TOST	113.89	137.16	23.27	111.83	-2.06		AMJ/AMD
MW-28	08/ 3 /20	0818	TOST	117.92	140.77	22.85	116.00	-1.92		↓
MW-29	08/ /20				139.81		162.34P		Totalizer: Pumping?	
MW-30A	08/ /20				129.44		105.56			
MW-30B	08/ /20				129.39		104.03			
MW-31	08/ /20				119.60		94.84			
MW-32A	08/ /20				92.88		69.80			
MW-32B	08/ /20				92.89		69.28			
MW-32C	08/ /20				92.88		64.00			
MW-33	08/ /20				83.19		61.10			
MW-34A	08/ 3 /20	1049	TOST	141.02	153.25	12.23	135.69	-5.33		AMJ/AMD
MW-34B	08/ 3 /20	1058	TOST	131.81	153.11	21.30	130.00	-1.81		↓
MW-34C	08/ 3 /20	1046	TOST	131.74	153.29	21.55	129.89	-1.85		↓
MW-35A	08/ /20				93.57		69.40			
MW-35B	08/ /20				93.56		74.38			
MW-35C	08/ /20				93.55		70.40			
MW-36	08/ 3 /20	0959	TOST	67 88.80	86.65	18.85	65.32	-2.48		AMJ/AMD
MW-37	08/ 3 /20	1222	TOST	129.43	155.60	26.17	128.79	-0.64		↓
MW-38	08/ 3 /20	1227	TOST	145.60	154.90	9.30	140.87	-4.73		↓
MW-39	08/ 3 /20	1015	TOST	66.11	84.25	18.14	63.48	-2.63		↓

msl = Mean sea level
ft = feet

HARGIS + ASSOCIATES, INC.

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: August 2020

METHOD OF MEASUREMENT/SOUNDER IDENTIFIER: **FLAT TAPE ELECTRIC SOUNDER #_____**

PROJECT NUMBER: **532.30**

WELL IDENTIFIER	DATE	TIME	MEASURING POINT	DEPTH TO WATER FROM REFERENCE POINT (+feet)	REFERENCE POINT ELEVATION (ft msl)	WATER LEVEL ELEVATION (ft msl)	May 2020 PREVIOUS DEPTH TO WATER (ft)	CHANGE IN WATER LEVEL (± ft)	COMMENTS	INITIALS
MW-40	08/ /20				123.40		96.81			
MW-41	08/ 9 /20	1215	TOST	134.73	155.60	20.87	133.34	~~20.87~~	-1.39	AMD/AMJ
MW-42	08/ /20				82.80		61.89			
MW-43	08/ /20				76.64		56.35			
EW-01	08/ /20				141.07		114.81		SOUNDING TUBE TO 172.65 Totalizer: Pumping?	
EW-02	08/ /20				132.97		113.25P		Totalizer: Pumping?	

msl = Mean sea level
ft = feet

HARGIS + ASSOCIATES, INC.

EW-02 & MW-29 need AA

AUGUST 2020 GROUNDWATER SAMPLE PLAN
TEAM 1

QA/QC	Total VOC's	1,4-Dixoane	APROX. GALLONS	ESTIMATED TIME (minutes)	WELL IDENTIFIER	HYDROGEOLOGIC ZONE	AUGUST 2020 SAMPLING SCHEDULE	SAMPLE METHOD
	0	0	241	25	~~MW-40~~	Deep; B	VOCs; 1,4-Dioxane	Ded 240V
	0	0	205	12	~~MW-34C~~	Deep; BC	VOCs; 1,4-Dioxane	Ded 240V
	0.4	0	93	10	~~MW-28~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	1	0	180	16	MW-34A	Deep; A	VOCs; 1,4-Dioxane	Ded 240V
*AA	68	8.5	162	9	~~MW-34B~~	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Ded 240V
	0	0.25	17	46	~~MW-09~~	Water Table; C	VOCs; 1,4-Dioxane	Redi-flo
	0	0	155	48	~~MW-26C~~	Deep; B	VOCs; 1,4-Dioxane	Redi-flo
	1	0.80	149	60	~~MW-18~~	Deep; A	VOCs; 1,4-Dioxane	Redi-flo
	4	0	85	34	~~MW-20~~	Water Table; D	VOCs; 1,4-Dioxane	Redi-flo
	12	--	21	14	~~MW-15~~	Water Table; AB	VOCs	Redi-flo
*AA	73	1.3	20	15	~~MW-08~~	Water Table; BC	VOCs; 1,4-Dioxane	Redi-flo
	1112	71	120	40	~~MW-16~~	Water Table; B	VOCs; 1,4-Dioxane (8270 MOD)	Redi-flo

NOTES
A **MS** and **MSD** (3x40ml VOA and 1L amber) should be collected every day/ alternating 1,4-Dioxane methods as indicated.
1,4-Dioxane analysis method is 8270 SIM unless specified otherwise (if historical detect is > 5.0 ug/l MOD is used).
1 = Day - # refers to the day scheduled to sample and the corresponding dedicated pipestand to use: ND=1; 0-10=2; 10 - 100=3; >100=4
Wells with dedicated pumps should follow concentration order when possible.
MW-36 and MW-39 Gate Access Code: 3252
*AA = Additional Analytes
RB = Rinsate blank taken on non-dedicated equipment each day- will vary with schedule and should be confirmed with both

HARGIS + ASSOCIATES, INC.

AUGUST 2020 GROUNDWATER SAMPLE PLAN
TEAM 2

QA/QC	Total VOC's	1,4-Dixoane	APROX. GALLONS	ESTIMATED TIME (minutes)	WELL IDENTIFIER	HYDROGEOLOGIC ZONE	AUGUST 2020 SAMPLING SCHEDULE	SAMPLE METHOD
AA	15	11	180	15	EW-01	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Dedicated
AA	891	740	253	11	MW-21	Water Table; BC	VOCs; 1,4-Dioxane (8270 MOD)	Dedicated
	0	0	901	45	~~MW-35C~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	0	0	964	45	~~MW-43~~	Deep; B	VOCs; 1,4-Dioxane	Ded 240V
	0	0	952	43	~~MW-39~~	Deep. B	VOCs; 1,4-Dioxane	Ded.240V
	0	0	649	57	~~MW-32A~~	Deep; AB	VOCs; 1,4-Dioxane	Ded.240V
	0	0	977	90	~~MW-32C~~	Water Table; C	VOCs; 1,4-Dioxane	Ded.240V
	0.4	0	60	10	~~MW-30A~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	1	0.25	230	21	~~MW-41~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
AA	2CV/ 3CV	4	0.11	909	50	~~MW-33~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	36	1.5	956	44	~~MW-42~~	Deep; B	VOCs; 1,4-Dioxane	Ded 240V
AA	43	2.1	286	24	~~MW-31~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
AA	74	2.1	75	21	~~MW-32B~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
AA	2CV/ 3CV	98	9.5	974	76	~~MW-36~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	135	0.37	122	23	MW-30B	Deep; BC	VOCs; 1,4-Dioxane	Ded.240V

NOTE
1 = Day - # refers to the day scheduled to sample and the corresponding dedicated pipestand to use: ND=1; 0-10=2; 10 - 100=3; >100=4
A **MS** and **MSD** (3x40ml VOA and 1L amber) should be collected every day/ alternating 1,4-Dioxane methods as indicated.
1,4-Dioxane analysis method is 8270 SIM unless specified otherwise (if historical detect is > 5.0 ug/l MOD is used).
Wells with dedicated pumps should follow concentration order when possible.
MW-36 and MW-39 Gate Access Code: 3252

RB = Rinsate blank taken on non-dedicated equipment each day- will vary with schedule and should be confirmed with both teams each morning.

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/4/20 TASK: 532.30 WELL ID: MW-26C

Time 0849 Static DTW (ft below reference point)	114.48	Screen SV Casing Volume (CV) (gallons) 49 3 SV (gallons) 147	Weather Conditions
Casing Total Depth (ft below reference point)	499	Purging Device grundfos Sampling Device ded tubing	Time 0927 Temp. 70
pump to screen Water Column (feet)	299	Pump: Depth (ft brp) ~200 Type MP1 Voltage 115 HP 0.5	Skies cloudy
Casing Capacity (Diameter 2 ") (gallons per foot)	0.163	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) — From —

Initials: AMD/RA
Begin Purge 0916 End Purge 1011
Gallons Purged 165 CVs Purged 3.4
DTW (ft brp) UTM Time —

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
0916	114.48	0	0			Begin Purge					
0929	UTM	39	0.80	22.4	8.96	454.9	-306.5	0.00	NM	325	Q = 3 gpm
0937	UTM	63	1.29	23.1	8.17	688	-243.7	0.00	5.18	325	water level meter stuck in well.
0941	UTM	75	1.53	23.2	8.19	6713	-207.1	0.00	NM	325	
0949	UTM	99	2.02	22.2	7.81	793	-150.2	0.00	1.24	325	
0957	UTM	123	2.51	22.2	7.75	797	-126.8	0.00	1.75	325	
1005	UTM	147	3.0	22.3	7.73	798	-143.3	0.00	1.28	325	
1010	UTM	162	3.1			COLLECT SAMPLE					
1011	UTM	165	3.1			END PURGE					

SAMPLE COLLECTION SAMPLE TIME 1010

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/4/20 TASK: 532.30 WELL ID: MW-28

Time 1046 Static DTW (ft below reference point)	118.18	Screen SV Casing Volume (CV) (gallons) 27 3 CV (gallons) 81	Weather Conditions
Casing Total Depth (ft below reference point)	375	Purging Device ded pump Sampling Device o-to pipestand	Time 1050 Temp. 70
pump to screen Water Column (feet)	45	Pump: Depth (ft brp) 330 Type grundfos Voltage 240 HP	Skies cloudy
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) — From —

Initials: AMD/RA
Begin Purge 1102 End Purge 1104
Gallons Purged 107 CVs Purged 4.0
DTW (ft brp) 128.35 Time 1111

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (° C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1102	118.18	0	0	—	—	Begin Purge	—	—	—	—	
1104	NM	18	0.6	21.6	7.50	949	73.4	2.60	3.49	—	Q= 9 gpm
1105	127.96	27	1.0	21.6	7.50	949	72.2	2.67	2.28	—	
1107	128.22	45	1.6	21.6	7.50	914	69.8	2.41	2.65	—	
1108	128.32	54	2.0	21.6	7.51	910	68.2	2.31	1.65	—	
1110	128.35	72	2.6	21.6	7.50	909	64.6	2.16	0.51	—	
1111	128.35	81	3.0	21.6	7.50	908	62.0	2.10	0.37	—	COLLECT SAMPLE
1114	NM	107	4.0	—	—	END	PURGE	—	—	—	

SAMPLE COLLECTION SAMPLE TIME 1112

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/4/20 TASK: 532.30 WELL ID: MW-09 ~~8/4/20~~

Time 1210 Static DTW (ft below reference point)	149.11	Casing Volume (CV) (gallons) 7 3 CV (gallons) 21	Weather Conditions	Initials: AMD/RA
Casing Total Depth (ft below reference point)	192.20	Purging Device grundfos Sampling Device ded tubing	Time 1215 Temp. 80	Begin Purge 1223 End Purge 1243
Water Column (feet)	43.09	Pump: Depth (ft brp) ~190 Type MP1 Voltage 115 HP .05	Skies clear	Gallons Purged 22 CVs Purged 3.1
Casing Capacity (Diameter 2 ") (gallons per foot)	0.163	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) — From —	DTW (ft brp) 150.22 Time 1243

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (° C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1223	149.11	0	0	—	—	Begin Purge	—	—	—	—	
1226	150.07	3.5	0.5	24.9	6.97	2673	~~2~~104.0	4.14	16.2	293	Q≅ 0.6 gpm
1230	150.11	7.0	1.0	24.4	6.95	2674	85.1	3.19	20.2	293	Q≅ 1.0 gpm
1234	150.20	10.5	1.5	24.3	6.96	2671	86.1	3.17	21.2	293	
1237	150.22	14	2.0	24.3	6.95	2670	87.3	3.18	13.4	293	
1239	150.22	17.5	2.5	24.3	6.96	2668	87.0	3.18	5.54	293	
1242	NM	21	3.0	24.3	6.97	2670	86.7	~~4~~4.42	4.42	293	COLLECT SAMPLE
1243	NM	22	3.1	—	—	END	PURGE	—	—	—	

SAMPLE COLLECTION SAMPLE TIME 1242

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1.4 dioxane	1	1 L Amber
8270 MOD 1.4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/4/20 TASK: 532.30 WELL ID: MW-18

Time 1320 Static DTW (ft below reference point)	122.85	Casing Volume (CV) (gallons) 47 3 CV (gallons) 141	Weather Conditions	Initials: AM DJ TDE/RA
Casing Total Depth (ft below reference point)	194.1	Purging Device grundfos Sampling Device ded tubing	Time 1335 Temp. 80	Begin Purge 1329 End Purge 1445
Water Column (feet)	71.25	Pump: Depth (ft brp) ~191 Type MP1 Voltage 115 HP 0.5	Skies clear	Gallons Purged 152 CVs Purged 3.2
Casing Capacity (Diameter 4 ") (gallons per foot)	0.66	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) ~ From ~	DTW (ft brp) 148.45 Time 1440

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1329	122.85	0	0			BEGIN	PURGE				
1337	NM	16	6.5	22.5	7.22	806	63.1	1.48	NM	315	Q ≈ 2 gpm
1353	NM	48	1.0	22.7	7.18	1228	77.4	4.64	7.41	315	
1404	148.51	70.5	1.5	22.8	7.21	1322	97.0	5.37	4.15	315	
1416	148.48	94	2.0	22.8	7.23	1367	100.3	5.56	6.43	315	
1428	148.56	118	2.5	22.9	7.25	1382	99.8	5.86	3.46	315	
1440	148.45	142	3.0	22.9	7.24	1388	88.3	6.05	2.61	315	COLLECT SAMPLE
1445	NM	152	3.2			END	PURGE				

SAMPLE COLLECTION SAMPLE TIME 1440

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/4/20 TASK: 532.30 WELL ID: MW-20

Time 1527 Static DTW (ft below reference point)	145.62	Casing Volume (CV) (gallons) 32 3 CV (gallons) 95	Weather Conditions	Initials: AMD/RA/TJE
Casing Total Depth (ft below reference point)	198.2	Purging Device grundfos Sampling Device ded tubing	Time 1530 Temp. 75	Begin Purge 1545 End Purge 1625
Water Column (feet)	52.58	Pump: Depth (ft brp) ~196 Type MP1 Voltage 115 HP 0.5	Skies clear	Gallons Purged 100 CVs Purged 3.1
Casing Capacity (Diameter 4") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) — From —	DTW (ft brp) 154.70 Time 1616

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (° C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1545	145.62	0	0	—	—	Begin	Purging	—	—	—	
1551	152.80	15	0.5	23.0	7.56	1132	62.0	5.07	NM	330	Q = 2.5gpm
1557	153.60	30	1.0	23.0	7.53	1130	64.2	5.21	3.50	330	
1603	154.22	45	1.5	23.1	7.54	1115	64.2	5.41	3.21	330	
1609	154.51	60	2.0	23.0	7.55	1139	65.1	5.61	2.90	330	
1616	154.70	78	2.5	23.1	7.55	1101	62.2	5.40	3.91	330	
1623	NM	95	3.0	23.1	7.54	1114	60.9	5.34	5.10	330	COLLECT SAMPLE
1625	NM	100	3.1	—	—	End	Purge	—	—	—	

SAMPLE COLLECTION SAMPLE TIME 1623

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3 6	40 ml VOA
8270 SIM 1,4 dioxane	2	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS (BLANKS?) If yes, complete appropriate forms. (Y) N

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

RB-080420 @ 1645 (VOCs + 1,4-D)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/5/20 TASK: 532.30 WELL ID: MW-40

Time 0825 Static DTW (ft below reference point)	99.73	screen ~~Casing~~ Volume (SV) (gallons) 75 3 SV (gallons) 225	Weather Conditions
Casing Total Depth (ft below reference point)	970	Purging Device ded pump Sampling Device ND pipestand	Time 0830 Temp. 70
pump to screen Water Column (feet)	50	Pump: Depth (ft brp) 920 Type grundfos Voltage 240 HP –	Skies cloudy
Casing Capacity (Diameter 6 ") (gallons per foot)	1.35	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) – From –

Initials: AMD/TJE/RA
Begin Purge 0847 End Purge 0911
Gallons Purged 241 CVs Purged 3.2
DTW (ft brp) 100.70 Time 0910

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
0847	99.73	0	0			Begin Purge				–	
0851	NM	37.5	0.5	21.1	7.58	813	-56.5	0.00	NM	–	Q ≈ 10 gpm
0854	100.70	75	1.0	21.1	7.60	818	-54.2	0.00	52.9	–	
0858	100.70	112.5	1.5	21.2	7.59	840	-35.4	0.00	15.4	–	
0903	100.70	150	2.0	21.3	7.56	835	-31.8	0.00	6.68	–	
0907	100.70	187.5	2.5	21.3	7.55	834	-30.7	0.00	3.67	–	
0910	100.70	225	3.0	21.3	7.54	835	-30.1	0.00	3.22	–	COLLECT SAMPLE
0911	NM	241	3.2			End Purge				–	

SAMPLE COLLECTION SAMPLE TIME 0910

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/5/20 TASK: 532.30 WELL ID: MW-15

Time 0940 Static DTW (ft below reference point)	125.90	Casing Volume (CV) (gallons) 7.3	3 CV (gallons) 22	Weather Conditions	Initials: AMD/RA
Casing Total Depth (ft below reference point)	170.80	Purging Device grundfos	Sampling Device ded tubing	Time 935 Temp. 70	Begin Purge 0948 End Purge 1013
Water Column (feet)	44.90	Pump: Depth (ft brp) ~167 Type MP1	Voltage 115 HP 0.5	Skies cloudy	Gallons Purged 26 CVs Purged 3.5
Casing Capacity (Diameter 2 ") (gallons per foot)	0.163	Monitor Well Recharge Rate: Slow	Fast X	Wind (mph) ~ From ~	DTW (ft brp) 125.87 Time 1011

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
0948	125.90	0	0	← PUMP ON →							
0951	NM	4.5	0.61	PUMP OFF @ 0951, PUMP ON @ 0959						305	Q≅ 1.5gpm
1000	125.87	6	0.82	23.1	7.05	1769	85.7	6.11	15.4	305	
1005	125.87	13.5	1.84	23.1	7.05	1763	90.5	5.97	10.48	305	
1007	125.87	16.5	2.26	23.1	7.05	1766	92.9	5.97	11.2	305	
1009	NM	19.5	2.67	23.1	7.05	1766	95.1	6.00	8.87	305	
1011	125.87	22.5	3.0	23.1	7.05	1764	95.9	5.97	7.97	305	COLLECT SAMPLE
1013	NM	25.5	3.5	← END PURGE →							

SAMPLE COLLECTION SAMPLE TIME 1011

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane		1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/5/20 TASK: 532.30 WELL ID: MW-08

Time 1030 Static DTW (ft below reference point)	127.61	Casing Volume (CV) (gallons) 6.3 3 CV (gallons) 19	Weather Conditions	Initials: AMD/RA/TJE
Casing Total Depth (ft below reference point)	166.10	Purging Device grundfos Sampling Device ded tubing	Time 1034 Temp. 70	Begin Purge 1038 End Purge 1056
Water Column (feet)	38.49	Pump: Depth (ft brp) ~164 Type MP1 Voltage 115 HP 0.5	Skies cloudy	Gallons Purged 25 CVs Purged 4.0
Casing Capacity (Diameter 2 ") (gallons per foot)	0.163	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) - From -	DTW (ft brp) 129.87 Time 1054

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1038	127.61	0	0	Begin Purge							
1040	129.70	3	0.5	22.2	7.18	1805	96.7	2.39	15.7	280	Q= 1.5 gpm
1043	129.52	6	1.0	22.9	7.13	1758	103.9	2.36	9.53	280	
1046	129.65	10.5	1.6	23.0	7.12	1748	104.8	2.24	4.26	280	
1048	NM	14	2.2	23.1	7.14	1740	104.7	3.97	3.97	280	
1051	129.85	16.5	2.6	23.1	7.14	1747	104.3	2.12	3.38	280	
1054	129.87	22	3.0	23.1	7.13	1738	103.6	2.12	3.71	280	COLLECT SAMPLE
1056	NM	25	4.0	END PURGE							

SAMPLE COLLECTION SAMPLE TIME 1054

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? (Y) N
If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

RB-080520 @ 1225 (VOCs + 1,4-D)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/5/20 TASK: 532.30 WELL ID: MW-16

Time 1216 Static DTW (ft below reference point)	118.22	Casing Volume (CV) (gallons) 40 3 CV (gallons) 120	Weather Conditions	Initials: AMO/RA
Casing Total Depth (ft below reference point)	178.50	Purging Device grundfos Sampling Device ded tubing	Time 1230 Temp. 80	Begin Purge 1232 End Purge 1322
Water Column (feet)	60.28	Pump: Depth (ft brp) ~175 Type MP1 Voltage 115 HP 0.5	Skies clear	Gallons Purged 125 CVs Purged 3.1
Casing Capacity (Diameter 4 ") (gallons per foot)	0.66	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) — From —	DTW (ft brp) 121.92 Time 1320

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1232	118.22	0	0	—	—	Begin Purge	—	—	—	—	
1240	121.90	20	0.5	22.8	7.35	996	75.1	2.53	3.61	325	Q = 2.5 gpm
1248	121.92	40	1.0	22.7	7.38	1098	71.1	3.02	9.99	325	
1256	121.92	60	1.5	22.7	7.35	1106	71.1	3.16	4.15	325	
1304	121.92	80	2.0	22.8	7.35	1151	71.1	3.86	4.80	325	
1312	121.92	100	2.5	22.8	7.33	1194	76.3	4.58	NM	325	
1320	121.92	120	3.0	22.8	7.34	1199	74.6	3.01	5.03	325	COLLECT SAMPLE
1322	NM	125	3.1	—	—	END	PURGE	—	—	—	

SAMPLE COLLECTION SAMPLE TIME 1320

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane		1 L Amber
8270 MOD 1,4 dioxane	1	1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/5/20 TASK: 532.30 WELL ID: MW-32B

Time 1404 Static DTW (ft below reference point)	72.30	~~Screen~~ ~~Casing~~ Volume (CV) (gallons) 1 CV 19.2 3 CV (gallons) 57.6	Weather Conditions Time 1405 Temp. 80
Casing Total Depth (ft below reference point)	999	Purging Device ded grundfos reg. flo 2 Sampling Device ded tubing	Skies clear
pump to bottomscreen Water Column (feet)	32	Pump: Depth (ft brp) 967 Type rediflo 2 Voltage 110 HP -	Wind (mph) - From -
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast X	Initials: AMD/RA
			Begin Purge 1409 End Purge 1430
			Gallons Purged 63 CVs Purged 3.3
			DTW (ft brp) 75.45 Time 1425

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1409	72.30	0	0			PUMP ON					
1411	74.41	6	0.3	21.5	7.60	772	-73.8	0.00	4.37	300	Q = 3 gpm
1415	74.49	18	1.0	21.5	7.58	768	-76.1	0.00	5.50	300	
1418	75.45	27	1.4	21.3	7.57	772	-76.8	0.00	5.53	300	
1422	75.45	39	2.0	21.3	7.57	771	-76.7	0.00	5.53	300	
1425	75.45	48	2.5	21.4	7.58	776	-78.1	0.00	6.45	300	
1429	NM	60	3.0	21.4	7.59	770	-78.8	0.00	5.18	300	COLLECT SAMPLE
1430	NM	63	3.3			END PURGE					

SAMPLE COLLECTION SAMPLE TIME 1429

ANALYSIS	QUANTITY	TYPE
8260B VOCs	9	40 ml VOA
8270 SIM 1,4 dioxane	3	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES SPLITS BLANKS? (Y) N
If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

DUP MW-3200B @ 1435

SPT MW-32 @ 1440

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/5/20 TASK: 532.30 WELL ID: MW-34A

Time 1515 Static DTW (ft below reference point)	141.18	screen SV Casing Volume (CV) (gallons) 48 3 CV (gallons) ~~144~~ 144	Weather Conditions
Casing Total Depth (ft below reference point)	280	Purging Device grundfos Sampling Device ND pipestand	Time 1520 Temp. 80
pump to screen Water Column (feet)	80	Pump: Depth (ft brp) 200 Type grundfos Voltage 240 HP –	Skies clear
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) – From –

Initials: AMD/RA
Begin Purge 1524 End Purge 1538
Gallons Purged 203 CVs Purged 203
DTW (ft brp) 143.09 Time 1534

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1524	141.18	0	0	Begin Purge							
1526	143.85	24	0.5	21.4	7.29	1348	-31.6	3.92	NM	–	Q≈ 15gpm
1528	143.85	48	1.0	21.8	7.30	1346	-18.2	3.16	26.2	–	
1529	143.85	90	1.8	21.8	7.30	1340	-10.2	3.14	22.2	–	
1531	143.09	113	2.35	21.8	7.31	1332	-2.1	2.92	NM	–	
1533	NM	133	2.77	21.8	7.31	1330	4.4	2.66	NM	–	
1534	143.09	150	3.1	21.9	7.28	1335	11.7	2.70	18.8	–	
1537	NM	200	4.1	21.9	7.29	1332	17.0	2.77	13.1	–	
1538	NM	203	4.2	PUMP SHUT OFF							

SAMPLE COLLECTION SAMPLE TIME N/A

ANALYSIS	QUANTITY	TYPE
8260B VOCs		40 ml VOA
8270 SIM 1,4 dioxane		1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? Y N
If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

No sample collected. Pump malfunction. Pump turned off during purging and could not restart.

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/6/20 TASK: 532.30 WELL ID: MW-34C

Time 0822 Static DTW (ft below reference point)	132.25	Screen ~~Casing~~ Volume (~~CV~~ SV) (gallons) 57.6 3 ~~CV~~ SV (gallons) 173	Weather Conditions
Casing Total Depth (ft below reference point)	576	Purging Device grundfos Sampling Device ND pipestand	Time 0823 Temp. 65
pump to screen Water Column (feet)	96	Pump: Depth (ft brp) 480 Type grundfos Voltage 240 HP –	Skies cloudy
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) – From –

Initials: AMD/RA

Begin Purge 0830 End Purge 0844

Gallons Purged 194 CVs Purged 3.3

DTW (ft brp) – Time –

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
0830	132.25	0	0	—	—	PUMP	ON	—	—	—	
0831	NM	29	0.5	21.3	7.45	669	-23.8	0.16	NM	–	Q ≅ 15 gpm
0833	NM	58	1.0	21.8	7.73	551	-97.3	0.00	4:54	–	transducer is set @ 150 ft btoc
0835	NM	87	1.5	21.8	7.55	719	-92.1	0.00	3.16	–	and blocking water level meter
0838	NM	116	2.0	21.9	7.53	721	-84.5	0.00	2.16	–	
0841	NM	145	2.5	21.9	7.52	723	-80.7	0.00	2.43	–	
0843	NM	173	3.0	21.9	7.51	725	-78.8	0.00	2.08	–	COLLECT SAMPLE
0844	NM	194	3.3	—	—	PUMP	OFF	—	—	—	

SAMPLE COLLECTION SAMPLE TIME 0843

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/6/20 TASK: 532.30 WELL ID: MW-34B

Time 0851 Static DTW (ft below reference point)	131.84	Screen SV Casing Volume (CV) (gallons) 46 3 CV (gallons) 138	Weather Conditions Time 0852 Temp. 70
Casing Total Depth (ft below reference point)	536	Purging Device ded pump Sampling Device 10-100 pipestand	Skies overcast
pump to screen Water Column (feet)	76	Pump: Depth (ft brp) 460 Type grundfos Voltage 240 HP –	Wind (mph) – From –
Casing Capacity (Diameter 4") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast X	Initials: AMP/RA
			Begin Purge 0900 End Purge 0910
			Gallons Purged 180 CVs Purged 3.9
			DTW (ft brp) 133.80 Time 0910

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
0900	131.84	0	0	PUMP ON							
0901	133.80	23	0.5	21.2	7.49	714	82.8	0.24	30.8	–	Q ≅ 13 gpm
0903	133.80	46	1.0	21.8	7.46	660	66.4	0.42	44.0	–	
0905	133.80	69	1.5	21.8	7.46	664	63.8	0.54	21.0	–	
0907	133.80	92	2.0	21.9	7.46	662	62.5	0.56	23.7	–	
0908	133.80	115	2.5	21.8	7.44	666	61.7	0.65	3.74	–	
0910	133.80	138	3.0	21.8	7.45	665	59.5	0.66	6.03	–	COLLECT SAMPLE
0914	NM	180	3.9	PUMP OFF							

SAMPLE COLLECTION SAMPLE TIME 0910

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane		1 L Amber
8270 MOD 1,4 dioxane	1	1 L Amber

DUPLICATES / SPLITS / BLANKS? Y (N)
If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/6/20 TASK: 532.30 WELL ID: MW-41

Time 1211 Static DTW (ft below reference point)	135.06	screen SV Casing Volume (CV) (gallons) 39 3 CV (gallons) 117	Weather Conditions
Casing Total Depth (ft below reference point)	425	Purging Device ded pump Sampling Device HDPE pipestand	Time 1212 Temp. 75
pump to screen Water Column (feet)	65	Pump: Depth (ft brp) 360 Type grundfos Voltage 240 HP –	Skies clear
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) – From –

Initials: AMP/RA
Begin Purge 1217 End Purge 1247
Gallons Purged 330 CVs Purged 8.3
DTW (ft brp) 144.36 Time 1247

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1217	135.06	0	0			Begin Purge					
1219	143.25	20	0.5	21.7	6.75	1623	-21.4	1.35	18.2	–	Q ≈ 10 gpm
1221	144.30	40	1.0	22.1	6.94	1635	23.6	2.01	13.2	–	
1223	144.30	60	1.5	22.2	6.94	1637	44.6	2.19	26.7	–	
1225	144.30	80	2.0	22.2	6.94	1635	53.4	2.25	25.0	–	
1227	144.30	100	2.5	22.2	6.92	1633	62.0	2.26	18.8	–	
1231	144.30	140	3.5	22.2	6.92	1635	66.0	2.25	14.2	–	
1235	144.30	180	4.5	22.2	6.92	1631	66.0	2.33	14.5	–	
1239	144.36	220	5.5	22.2	6.93	1635	67.6	2.37	14.3	–	
1243	144.36	260	6.5	22.1	6.99	1643	63.8	2.65	11.9	–	
1247	144.36	330	8.3	22.1	6.94	1639	66.1	2.56	9.1	–	COLLECT SAMPLE @1247, PUMP OFF

SAMPLE COLLECTION SAMPLE TIME 1247

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? Y (N)
If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

AUG 2020

SCANNED
8/11/20

QUARTERLY GROUNDWATER MONITORING

FIELD NOTEBOOK

LARGE VOLUME MONITOR WELLS

RAYTHEON COMPANY

532.30

1901 MALVERN AVE.
FULLERTON, CALIFORNIA

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

INSTRUMENT CALIBRATION LOG FOR GROUNDWATER SAMPLING: Temp + pH + EC + DO + ORP

DATE	TIME	pH BUFFER	pH READING	TEMP of Soln (C)	METER TYPE	EC STANDARD (mS/cm)	EC READ-ING (mS/cm)	DO READ-ING (mg/l)	ORP READ-ING (mV)	COMMENTS/ TEMP OR ALTITUDE CORRECTION FACTOR	INITIALS
8.5.20	7:41	4.00	4.07	23.9	DDS						
↓	7:45	7.00	6.81	24.1	↓						
	7:48	10.02	9.98								
						1.487	1.452	8.77			

HARGIS + ASSOCIATES, INC.

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: August 2020

METHOD OF MEASUREMENT/SOUNDER IDENTIFIER: **FLAT TAPE ELECTRIC SOUNDER #_____**

PROJECT NUMBER: **532.30**

WELL IDENTIFIER	DATE	TIME	MEASURING POINT	DEPTH TO WATER FROM REFERENCE POINT (+feet)	REFERENCE POINT ELEVATION (ft msl)	WATER LEVEL ELEVATION (ft msl)	May 2020 PREVIOUS DEPTH TO WATER (ft)	CHANGE IN WATER LEVEL (± ft)	COMMENTS	INITIALS
P-07	08/ 3 /20	1315	TOC	111.09	142.31	31.22	111.07	-0.02		DJS/RA/TJE
P-09	08/ /20				183.86		120.61			
MW-06	08/ /20				184.70		150.84			
MW-08	08/ 3 /20	1048	TOC	127.84	155.91	28.07	127.86	+0.02		DJS
MW-09	08/ /20				180.10		149.38			
MW-13	08/ /20				141.84		117.87			
MW-15	08/ 3 /20	1058	TOC	125.83	144.95	19.12	126.66	+0.83		DJS/TJE/RA
MW-16	08/ 3 /20	1252	TOC	118.13	142.40	24.10	116.40	-1.73		↓
MW-17	08/ /20				142.70		117.81			
MW-18	08/ /20				142.32		118.23			
MW-19	08/ /20				142.06		117.85			
MW-20	08/ /20				184.19		146.82			
MW-21	08/ 3 /20	1300	TOST	112.03	141.18	29.15	112.09	+0.06	Totalizer: Pumping?	DJS/TJE/RA
MW-22	08/ /20				138.65		114.55			
MW-23	08/ /20				137.33		114.66			
MW-24	08/ 3 /20	1255	TOST	111.76	142.83	31.07	112.00	+0.24		DJS/TJE/RA
MW-25	08/ 3 /20	1257	TOC	112.48	142.64	30.16	112.60	+0.12		↓
MW-26A	08/ /20				137.04		116.20			
MW-26B	08/ /20				137.05		118.71			
MW-26C	08/ /20				137.22		112.31			

msl = Mean sea level
ft = feet

HARGIS + ASSOCIATES, INC.

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: August 2020

METHOD OF MEASUREMENT/SOUNDER IDENTIFIER: **FLAT TAPE ELECTRIC SOUNDER #_____**

PROJECT NUMBER: **532.30**

WELL IDENTIFIER	DATE	TIME	MEASURING POINT	DEPTH TO WATER FROM REFERENCE POINT (+feet)	REFERENCE POINT ELEVATION (ft msl)	WATER LEVEL ELEVATION (ft msl)	May 2020 PREVIOUS DEPTH TO WATER (ft)	CHANGE IN WATER LEVEL (± ft)	COMMENTS	INITIALS
MW-27	08/ /20				137.16		111.83			
MW-28	08/ /20				140.77		116.00			
MW-29	08/ 3 /20	1031	TOST	153.41P	139.81	-13.60	162.34P	+8.93	Totalizer: 7718402.4 Pumping? yes	DJS/TJE/RA
MW-30A	08/ 3 /20	0954	TOST	107.69	129.44	21.75	105.56	-2.13		
MW-30B	08/ 3 /20	0950	TOST	105.72	129.39	23.69	104.03	-1.69		
MW-31	08/ 3 /20	1217	TOST	97.36	119.60	22.24	94.84	-2.52		
MW-32A	08/ 3 /20	8:00	TOST	72.57	92.88	20.31	69.80	-2.77		
MW-32B	08/ 3 /20	8:08	TOC	71.71	92.89	21.18	69.28	-2.43		
MW-32C	08/ 3 /20	8:16	TOST	64.45	92.88	28.43	64.00	-0.45		
MW-33	08/ 3 /20	9:31	TOST	63.83	83.19	19.36	61.10	-2.73		
MW-34A	08/ /20				153.25		135.69			
MW-34B	08/ /20				153.11		130.00			
MW-34C	08/ /20				153.29		129.89			
MW-35A	08/ 3 /20	911	TOST	76.71	93.57	16.86	69.40	-7.31		DJS/TJE/RA
MW-35B	08/ 3 /20	905	TOST	80.14	93.56	~~16.86~~	74.38	-5.76	13.42 = DTW	
MW-35C	08/ 3 /20	908	TOST	73.31	93.55	20.24	70.40	-2.91		
MW-36	08/ /20				86.65		65.32			
MW-37	08/ /20				155.60		128.79			
MW-38	08/ /20				154.90		140.87			
MW-39	08/ /20				84.25		63.48			

msl = Mean sea level
ft = feet

HARGIS + ASSOCIATES, INC.

STATIC WATER LEVEL DATA SHEET

MONTH/YEAR: August 2020

METHOD OF MEASUREMENT/SOUNDER IDENTIFIER: **FLAT TAPE ELECTRIC SOUNDER #_____**

PROJECT NUMBER: **532.30**

WELL IDENTIFIER	DATE	TIME	MEASURING POINT	DEPTH TO WATER FROM REFERENCE POINT (+feet)	REFERENCE POINT ELEVATION (ft msl)	WATER LEVEL ELEVATION (ft msl)	May 2020 PREVIOUS DEPTH TO WATER (ft)	CHANGE IN WATER LEVEL (± ft)	COMMENTS	INITIALS
MW-40	08/ 3 /20	1240	TOST	99.28	123.40	24.12	96.81	-2.47		DJS/TJE/RA
MW-41	08/ /20				155.60		133.34			
MW-42	08/ 3 /20	852	TOST	64.79	82.80	18.01	61.89	-2.90		DJS/TJE/RA
MW-43	08/ 3 /20	848	TOST	59.80	76.64	17.54	56.35	-2.75		
EW-01	08/ 3 /20	1306	TOST	116.46	141.07	24.61	114.81	-1.65	SOUNDING TUBE TO 172.65 Totalizer: Pumping?	
EW-02	08/ 3 /20	1011	TOST	115.33P	132.97	17.64	113.25P	-2.08	Totalizer: 4265332 Pumping? Yes	

msl = Mean sea level
ft = feet

HARGIS + ASSOCIATES, INC.

AUGUST 2020 GROUNDWATER SAMPLE PLAN
TEAM 2

QA/QC	Total VOC's	1,4-Dixoane	APROX. GALLONS	ESTIMATED TIME (minutes)	WELL IDENTIFIER	HYDROGEOLOGIC ZONE	AUGUST 2020 SAMPLING SCHEDULE	SAMPLE METHOD
	15	11	180	15	~~EW-01~~	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Dedicated
	891	740	253	11	~~MW-21~~	Water Table; BC	VOCs; 1,4-Dioxane (8270 MOD)	Dedicated
	0	0	901	45	~~MW-35C~~ 2	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	0	0	964	45	~~MW-43~~ 1	Deep; B	VOCs; 1,4-Dioxane	Ded 240V
	0	0	952	43	~~MW-39~~	Deep. B	VOCs; 1,4-Dioxane	Ded.240V
	0	0	649	57	~~MW-32A~~	Deep; AB	VOCs; 1,4-Dioxane	Ded.240V
	0	0	977	90	~~MW-32C~~	Water Table; C	VOCs; 1,4-Dioxane	Ded.240V
	0.4	0	60	10	~~MW-30A~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	1	0.25	230	21	~~MW-41~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
2CV/ 3CV	4	0.11	909	50	~~MW-33~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
DUP	36	1.5	956	44	~~MW-42~~ 3	Deep; B	VOCs; 1,4-Dioxane	Ded 240V
	43	2.1	286	24	~~MW-31~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	74	2.1	75	21	~~MW-32B~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
2CV/ 3CV	98	9.5	974	76	~~MW-36~~ 4	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	135	0.37	122	23	~~MW-30B~~	Deep; BC	VOCs; 1,4-Dioxane	Ded.240V

NOTE
1 = Day - # refers to the day scheduled to sample and the corresponding dedicated pipestand to use: ND=1; 0-10=2; 10 - 100=3; >100=4
A **MS** and **MSD** (3x40ml VOA and 1L amber) should be collected every day/ alternating 1,4-Dioxane methods as indicated.
1,4-Dioxane analysis method is 8270 SIM unless specified otherwise (if historical detect is > 5.0 ug/l MOD is used).
Wells with dedicated pumps should follow concentration order when possible.
MW-36 and MW-39 Gate Access Code: 3252

RB = Rinsate blank taken on non-dedicated equipment each day- will vary with schedule and should be confirmed with both teams each morning.

HARGIS + ASSOCIATES, INC.

AUGUST 2020 GROUNDWATER SAMPLE PLAN
TEAM 1

QA/QC	Total VOC's	1,4-Dixoane	APROX. GALLONS	ESTIMATED TIME (minutes)	WELL IDENTIFIER	HYDROGEOLOGIC ZONE	AUGUST 2020 SAMPLING SCHEDULE	SAMPLE METHOD
	0	0	241	25	~~MW-40~~	Deep; B	VOCs; 1,4-Dioxane	Ded 240V
	0	0	205	12	~~MW-34C~~	Deep; BC	VOCs; 1,4-Dioxane	Ded 240V
	0.4	0	93	10	~~MW-28~~	Deep; B	VOCs; 1,4-Dioxane	Ded.240V
	1	0	180	16	MW-34A	Deep; A	VOCs; 1,4-Dioxane	Ded 240V
#AA	68	8.5	162	9	~~MW-34B~~	Deep; B	VOCs; 1,4-Dioxane (8270 MOD)	Ded 240V
	0	0.25	17	46	~~MW-09~~	Water Table; C	VOCs; 1,4-Dioxane	Redi-flo
	0	0	155	48	~~MW-26C~~	Deep; B	VOCs; 1,4-Dioxane	Redi-flo
	1	0.80	149	60	~~MW-18~~	Deep; A	VOCs; 1,4-Dioxane	Redi-flo
	4	0	85	34	~~MW-20~~	Water Table; D	VOCs; 1,4-Dioxane	Redi-flo
	12	--	21	14	~~MW-15~~	Water Table; AB	VOCs	Redi-flo
*AA	73	1.3	20	15	~~MW-08~~	Water Table; BC	VOCs; 1,4-Dioxane	Redi-flo
	1112	71	120	40	~~MW-16~~	Water Table; B	VOCs; 1,4-Dioxane (8270 MOD)	Redi-flo

NOTES
A **MS** and **MSD** (3x40ml VOA and 1L amber) should be collected every day/ alternating 1,4-Dioxane methods as indicated.
1,4-Dioxane analysis method is 8270 SIM unless specified otherwise (if historical detect is > 5.0 ug/l MOD is used).
1 = Day - # refers to the day scheduled to sample and the corresponding dedicated pipestand to use: ND=1; 0-10=2; 10 - 100=3; >100=4
Wells with dedicated pumps should follow concentration order when possible.
MW-36 and MW-39 Gate Access Code: 3252

RB = Rinsate blank taken on non-dedicated equipment each day- will vary with schedule and should be confirmed with both

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/4/20 **TASK:** 532.30 **WELL ID:** MW-32A

Time 0845 Static DTW (ft below reference point)	72.75	Screen ~~Casing~~ Volume (SV) (gallons) 207 3 SV (gallons) 621	Weather Conditions: Time 0845 Temp. 70
Casing Total Depth (ft below reference point)	905	Purging Device ded. pump Sampling Device ND pipestand	Skies overcast
pump to screen Water Column (feet)	345	Pump: Depth (ft brp) 560 Type grundfos Voltage 240 HP –	Wind (mph) – From –
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast X	Initials: AMJ / DJS
			Begin Purge 0858 End Purge 09
			Gallons Purged 666 SV CVs Purged 3.2
			DTW (ft brp) 74.72 Time 0946

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
0858	72.75	0	0	—	— pump	on	—	—		–	Q ~ 13 GPM
0906	74.54	103	0.5	20.9	7.47	0.999	46.6	1.25	-0.32	–	
0914	74.59	207	1.0	21.1	7.28	0.998	77.2	1.31	55.97	–	
0922	74.61	310	1.5	21.1	7.24	0.998	65.2	1.46	95.72	–	
0930	74.65	413	2.0	21.3	7.24	0.999	85.5	1.55	9.77	–	
0938	74.71	517	2.5	21.1	7.23	0.998	84.0	1.56	2.05	–	
0946	74.72	621	3.0	21.1	7.24	0.997	85.8	1.57	1.65	–	collect samples
0950	NM	666	3.2	~	~ pump	off	~	~	~		

SAMPLE COLLECTION SAMPLE TIME 0948

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 08/04/20 **TASK:** 532.30 **WELL ID:** MW-32

Time 0:56 Static DTW (ft below reference point)	64.47	Screen SV Casing Volume (CV) (gallons) 3.18 3 CV (gallons) 9.54	Weather Conditions
Casing Total Depth (ft below reference point)	109.0	Purging Device Dol Pump Sampling Device ND pipestand	Time 9:30 Temp. 72°F
Pump to Screen Water Column (feet)	53.0	Pump: Depth (ft brp) 56.0 Type Voltage 240 HP ~	Skies Overcast
Casing Capacity (Diameter 4") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow Fast ✓	Wind (mph) ~ From ~

Initials: AMJ / DJS

Begin Purge 1005 End Purge 1141

Gallons Purged 9.96 SV CVs Purged 3.13

DTW (ft brp) 64.47 Time 9:56

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1005	64.47	0	0	~	~	Begin	Purge		~	~	Q ≈ 12 GPM
1020	148.17	161	0.5	21.5	7.81	0.498	-186.6	0.12	29.01	~	
1032	160.91	318	1.0	21.9	7.96	0.533	-178.8	0.05	16.38	~	
1049	167.78	477	1.5	22.4	8.02	0.507	-160.4	0.04	12.89 29.43	~	
1105	172.33	640	2.0	22.9	8.03	0.512	-154.3	0.03	6.06	~	
1122	174.92	800	2.5	23.3	8.02	0.517	-151.1	0.03	5.83	~	
1138	177.45	955	3.0	23.4	8.02	0.588	-148.2	0.03	2.98	~	collect samples
1141	NM	996	3.12	~ pump off			~			~	

SAMPLE COLLECTION SAMPLE TIME 1138

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? Y (N)
If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

Removed transducer @ 1019

Placed transducer @ 1145

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/4/20 **TASK:** 532.30 **WELL ID:** MW-39

Time 1332 Static DTW (ft below reference point)	66.54	Screen Casing Volume (CV) (gallons) 271 SV 3 CV (gallons) 814	Weather Conditions: Time ~~1350~~ 1332 Temp. 80
Casing Total Depth (ft below reference point)	1012	Purging Device ded. pump Sampling Device ND peristaltic	Skies Clear
pump to Screen Water Column (feet)	452	Pump: Depth (ft brp) 560 Type grundfos Voltage 240 HP –	Wind (mph) – From –
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast X	DTW (ft brp) 66.52 Time 1332

Initials: AMS/DJS

Begin Purge 1337 End Purge 1419

Gallons Purged ~~858~~ SV CVs Purged 3.1

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (mS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1337	66.54	0	0	~	~	pump	on	~	~		Q ≈ 22 gpm
1343	82.00	136	0.5	22.6	8.23	0.431	-126.4	2.16	4.99	–	
1349	82.52	271	1.0	22.4	8.37	0.421	-137.8	0.10	9.26	–	
1356	82.60	407	1.5	22.7	8.26	0.426	-121.9	0.07	3.46	–	
1402	82.64	542	2.0	22.8	8.21	0.429	-120.2	0.05	0.70	–	
1410	82.73	678	2.5	22.7	8.24	0.431	-121.2	0.04	0.33	–	
1417	82.75	814	3.0	22.7	8.24	0.413	-122.0	0.04	0.31	✓	collect samples
1419	NM	858	3.1	~	End		purge	~	~	–	

SAMPLE COLLECTION SAMPLE TIME 1417

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

2SV

DATE: 8/4/20 **TASK:** 532.30 **WELL ID:** MW-33

Time 1518 Static DTW (ft below reference point)	64.31	Screen SV Casing Volume (CV) (gallons) 291 SV 3 CV (gallons) 873	Weather Conditions	Initials: AMJ/DJS
Casing Total Depth (ft below reference point)	1020	Purging Device grd. pump Sampling Device 0-10 pipetone	Time 1518 Temp. 80	Begin Purge 1557 End Purge 1650
pump to screen Water Column (feet)	485	Pump: Depth (ft brp) 535 Type grundfos Voltage 240 HP	Skies elecr	Gallons Purged 929 SV CVs Purged 3.2
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow Fast x	Wind (mph) — From —	DTW (ft brp) 66.90 Time 1647

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (mS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1557	64.31	0	0	~		pump	on		~		Q ≃ 16 gpm
1603	66.61	145	0.5	20.7	7.51	0.644	-29.9	0.18	NM	—	
1611	66.62	291	1.0	21.0	7.54	0.650	-39.8	0.41	0.50	—	
1620	66.68	437	1.5	21.1	7.52	0.703	-45.1	0.44	3.00	-	
1629	66.72	582	2.0	21.1	7.53	0.703	-48.6	0.44	4.19	-	2SV samples collected
1637	66.68	728	2.5	21.2	7.57	0.704	-47.6	0.49	3.81	-	
1647	66.90	873	3.0	21.2	7.52	0.703	-46.5	0.45	4.15	-	collect samples
1650	NM	929	3.2	~			pump	off		~	

SAMPLE COLLECTION SAMPLE TIME 1647

ANALYSIS	QUANTITY	TYPE
8260B VOCs	6	40 ml VOA
8270 SIM 1,4 dioxane	2	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? Y (N)
If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

Additional analytes @ CO_2, dissolved sulfides & total sulfides

MW-33_2SV collected @ 1629

issues turning pump on disconnected cables & tried again. Worked after a few tries

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/5/20 **TASK:** 532.30 **WELL ID:** MW-43

Time 0820 Static DTW (ft below reference point)	59.59	Screen Casing Volume (CV) (gallons) 292 3 CV (gallons) 875	Weather Conditions
Casing Total Depth (ft below reference point)	1046	Purging Device ded. pump Sampling Device ND pipe stand	Time 0820 Temp. 70
pump to screen Water Column (feet)	486	Pump: Depth (ft brp) 560 Type grundfos Voltage 240 HP 0.5	Skies overcast
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast x	Wind (mph) — From —

Initials: AMJ/DJS

Begin Purge 0832 End Purge 0912

Gallons Purged 938 CVs Purged 3.2

DTW (ft brp) 67.30 Time 0909

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
0832	59.59	0	0			pump on					Q ≃ 29 gpm
0838	66.92	146	0.5	20.5	10.31	0.640	-94.1	0.32	3.61	-	
0843	67.03	292	1.0	21.0	8.69	0.494	-153.0	0.12	2.36	-	Q ≃ 22 gpm
0849	67.30	438	1.5	21.5	8.01	0.489	-115.3	0.09	4.86	-	
0855	67.30	584	2.0	21.6	8.02	0.489	-92.4	0.07	5.19	-	
0902	67.30	730	2.5	21.6	8.02	0.489	-79.2	0.06	5.15	-	
0908	67.30	875	3.0	21.6	8.02	0.489	-70.7	0.06	5.18	-	collect samples
0912	NM	938	3.2			pump off					

SAMPLE COLLECTION SAMPLE TIME 0909

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N) 0

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 08/05/20 TASK: 832.30 WELL ID: MW-35C

Time 0955 Static DTW (ft below reference point)	73.95	screen ~~Casing~~ Volume (5V) (gallons) 288 3 5V (gallons) 864	Weather Conditions: Time 0955 Temp. 72; Skies overcast; Wind (mph) – From →
Casing Total Depth (ft below reference point)	1040	Purging Device ded. pump Sampling Device ND pipestand	Initials: AMS/DJS
pump to screen Water Column (feet)	480	Pump: Depth (ft brp) 560 Type grundfos Voltage 240 HP –	Begin Purge 1000 End Purge 1044
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast x	Gallons Purged 885 5V CVs Purged 3.1; DTW (ft brp) 83.52 Time 1042

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (mS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
~~0832~~ 1000	73.95	0	0	~		pump		on	~	–	Q ~ 20 gpm
1007	83.53	144	0.5	20.6	7.56	0.780	-3.9	0.71	1.12	–	
1014	83.60	288	1.0	20.7	7.63	0.702	39.8	0.49	7.92	–	
1021	84.17	432	1.5	20.5	7.55	0.768	19.6	3.08	4.01	–	
1028	84.40	576	2.0	20.5	7.58	0.769	17.7	3.06	1.47	–	
1035	84.46	720	2.5	20.5	7.59	0.770	19.0	3.06	2.45	–	
1042	83.52	864	3.0	20.5	7.60	0.770	19.5	3.05	4.45	–	
1044	NM	885	3.1	~		pump		off	~		

SAMPLE COLLECTION SAMPLE TIME 1042

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 08/05/20 **TASK:** 532.30 **WELL ID:** MW-42

Time 1239 Static DTW (ft below reference point)	65.49	Screen SV Casing Volume (CV) (gallons) 295 3 SV (gallons) 885	Weather Conditions	Initials: AMS/DJS
Casing Total Depth (ft below reference point)	1051	Purging Device Red. pump Sampling Device 10-100 pipetted	Time 1239 Temp. 80	Begin Purge 1249 End Purge 1333
pump to screen Water Column (feet)	491	Pump: Depth (ft brp) 560 Type grundfos Voltage 240 HP –	Skies clear	Gallons Purged 910 SV CVs Purged 3.08
Casing Capacity (Diameter 4 ") (gallons per foot)	0.60	Monitor Well Recharge Rate: Slow ____ Fast X	Wind (mph) – From –	DTW (ft brp) 65.49 Time 1279

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1249	65.49	0	0			pump on					Q ≈ 22 gpm
1256	74.40	148	0.5	21.1	7.92	0.572	-126.8	0.14	5.24	–	
1303	74.57	295	1.0	21.8	8.02	0.574	-129.0	0.08	5.10	–	
1310	74.63	443	1.5	21.8	8.09	0.574	-122.9	0.07	5.42	–	
1316	74.70	590	2.0	21.8	8.08	0.574	-123.4	0.05	5.45	–	
1324	74.79	738	2.5	21.9	8.09	0.540	-122.5	0.05	5.44	–	
1331	74.84	885	3.0	21.8	8.00	0.539	-122.3	0.04	5.48	–	
1333	NM	910	3.08			End Purge				–	

SAMPLE COLLECTION SAMPLE TIME 1331

ANALYSIS	QUANTITY	TYPE
8260B VOCs	9	40 ml VOA
8270 SIM 1,4 dioxane	3	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. (Y) N

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

MW-4200 collected @ 1332 (1430*)

MW-42 split collected @ 1331

* dup info

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/5/20 TASK: 532.30 WELL ID: MW-36

Time 1418 Static DTW (ft below reference point)	68.52	Screen Casing Volume (CV) (gallons) 320.4 3 CV (gallons) 961	Weather Conditions Time 1419 Temp. 82
Casing Total Depth (ft below reference point)	994	Purging Device ded. pump Sampling Device 10-100	Skies clear
pump to screen Water Column (feet)	534	Pump: Depth (ft brp) 460 Type grundfos Voltage 240 HP	Wind (mph) — From —
Casing Capacity (Diameter 4 ") (gallons per foot)	060	Monitor Well Recharge Rate: Slow Fast X	Initials: AMT/DJS
			Begin Purge 1426 End Purge 1549
			Gallons Purged 1079 CVs Purged 3.4
			DTW (ft brp) 72.29 Time 1540

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (° C)	pH	EC (mS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1426	68.52	0	0	—	—	pump on				✓	Q ~ 13 gpm
1439	71.83	160	0.5	25.7	7.52	1.328	118.3	0.84	0.34	—	
1453	71.85	320	1.0	22.2	7.82	0.734	66.8	0.09	10.59	—	
1509	71.93	480	1.5	22.5	7.59	1.087	52.3	0.06	13.25	—	
1518	72.22	640	2.0	22.3	7.58	1.136	55.9	0.04	14.46	—	
1530	72.19	820	2.5	25.5	7.60	1.209	61.9	0.06	2.75	—	
1540	72.29	961	3.0	23.0	7.60	1.222	76.5	0.04	1.39	—	
1544	NM	1013	3.2	22.5	7.56	1.241	78.4	0.03	2.87	—	collect samples
1549	NM	1079	3.4	—	—	pump off				—	

SAMPLE COLLECTION SAMPLE TIME 1544

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? Y (N)
If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)
Additional analytes collected - CO_2, dissolved sulfides, total sulfides

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 8/6/20 **TASK:** 532.30 **WELL ID:** MW-30A

Time 0905 Static DTW (ft below reference point)	103.12	Screen Casing Volume (CV) (gallons) 17.2 SV 3 CV (gallons) 51.5	Weather Conditions: Time 0825 Temp. 72
Casing Total Depth (ft below reference point)	564	Purging Device Rd. pump Sampling Device 0-10 pipette/bl	Skies overcast
pump to screen Water Column (feet)	44	Pump: Depth (ft brp) 520 Type Grundfos Voltage 240 HP —	Wind (mph) — From —
Casing Capacity (Diameter 3 ") (gallons per foot)	0.39	Monitor Well Recharge Rate: Slow ____ Fast X	Initials: AMJ/DJS
			Begin Purge 0908 End Purge 0924
			Gallons Purged 99 SV CVs Purged 5.8
			DTW (ft brp) 110.23 Time 0918

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (mS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
0908	103.12	0	0	—	—	pump on			—	—	Q ≈ 6 gpm
~~0910~~	~~110.12~~	~~9~~	—	~~24.3~~	~~8.33~~	~~0.005~~	~~222.5~~	~~8.27~~	~~4.17~~	-	Fixed flowcell tubing connection
0911	110.20	17	1.0	21.3	8.30	0.787	169.5	1.05	18.10	-	
0913	110.21	25	1.5	21.4	7.96	0787	152.6	0.56	3.05	-	
0915	110.21	34	2.0	21.4	7.82	0.788	140.0	0.61	3.51	-	
0917	NM	42	2.5	21.5	7.73	0.788	109.1	0.62	3.62	-	
0918	110.23	51	3.0	21.5	7.69	0.787	81.0	0.61	2.55	-	
0920	NM	60	3.5	21.6	7.66	0.786	59.2	0.61	2.29	-	
0921	NM	70	4.1	21.5	7.65	0.786	50.2	0.61	1.16	-	collect samples
0924	NM	99	5.8	—	—	pump off			—	—	

SAMPLE COLLECTION SAMPLE TIME 0921

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y N

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 08/06/2020 **TASK:** 532.30 **WELL ID:** MW-31

Time 0948 Static DTW (ft below reference point)	97.84	Screen Casing Volume (CV) (gallons) 81 SV 3 CV (gallons) 243	Weather Conditions: Time 0936 Temp. 74
Casing Total Depth (ft below reference point)	996	Purging Device ded. pump Sampling Device 10-100 pipettes	Skies overcast
pump to screen Water Column (feet)	54	Pump: Depth (ft brp) 942 Type grandfos Voltage 240 HP —	Wind (mph) — From —
Casing Capacity (Diameter 6 ") (gallons per foot)	1.5	Monitor Well Recharge Rate: Slow ____ Fast X	Initials: AHS/DJS
			Begin Purge 0949 End Purge 1019
			Gallons Purged 339 SV CVs Purged 4.2
			DTW (ft brp) 102.12 Time 1011

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (mS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
0949	97.84	0	0	~	~	pump on	~	~	~		Q ~ 12 gpm
0953	102.03	40	0.5	21.1	7.70	1.047	174.3	0.70	5.21	—	
0956	102.10	81	1.0	21.5	10.72	1.054	-84.8	0.73	42.05	—	
1000	102.11	120	1.5	21.8	8.09	1.471	-62.9	0.78	23.41	—	
1004	102.12	162	2.0	22.0	7.78	1.264	-45.1	0.75	19.26	—	
1007	102.12	202	2.5	22.1	7.71	1.098	-31.0	0.78	19.89	—	
1011	102.12	243	3.0	22.0	7.70	1.106	-22.9	0.79	18.72	—	
1014	NM	280	3.5	21.4	7.62	1.041	-17.9	0.48	1.53	—	collect samples
1019	NM	339	4.2	~	~	pump off	~	~	~	—	

SAMPLE COLLECTION SAMPLE TIME 1014

ANALYSIS	QUANTITY	TYPE
8260B VOCs	9	40 ml VOA
8270 SIM 1,4 dioxane	3	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? (Y) N
If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

Additional analytes collected - CO_2, dissolved sulfides & total sulfides

MW-3100 collected @ 1019

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 08/06/2020 TASK: 532.30 WELL ID: EW-01

Time 1344 Static DTW (ft below reference point)	116.71	Casing Volume (CV) (gallons) 47.1 3 CV (gallons) 141.4	Weather Conditions: Time 1143 Temp. 80
Casing Total Depth (ft below reference point)	188.1	Purging Device ded. pump Sampling Device ded. sample port	Skies clear
Water Column (feet)	71.39	Pump: Depth (ft brp) – Type – Voltage – HP –	Wind (mph) – From –
Casing Capacity (Diameter 4 ") (gallons per foot)	0.66	Monitor Well Recharge Rate: Slow ____ Fast X	Initials: AMJ/DJS
			Begin Purge 1348 End Purge 1413
			Gallons Purged 300 CVs Purged 6.4
			DTW (ft brp) 117.38 Time 1403

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (mS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1348	116.71	0	0				pump on			–	Q ≈ 12 gpm
1356	117.73	78.00	2.83	22.1	7.45	1.406	87.9	8.97	NM	–	
1358	NM	120.0	2.54	22.0	7.41	1.414	82.8	9.02	1.2	–	
1359	117.71	130.00	2.80	22.1	7.39	1.413	82.5	9.23	0.21	–	
1401	NM	158.0	3.31	22.1	7.39	1.412	83.0	7.64	2.66	–	
1402	NM	168	3.56	22.1	7.38	1.416	83.7	8.17	1.44	–	
1403	117.38	180	3.82	22.1	7.37	1.414	84.6	7.54	2.05	–	
1405	NM	204	4.33	22.1	7.36	1.419	85.2	7.59	NM	–	collect samples
1413	NM	300	6.4				pump off				

SAMPLE COLLECTION SAMPLE TIME 1405

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane		1 L Amber
8270 MOD 1,4 dioxane	1	1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

* Add. analytes collected

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 08/06/20 **TASK:** 5323.30 **WELL ID:** MW-21

Time 1318 Static DTW (ft below reference point)	112.04	Casing Volume (CV) (gallons) 79.2 3 CV (gallons) 238	Weather Conditions	Initials: AMJ/DDS
Casing Total Depth (ft below reference point)	232.1	Purging Device ded. pump Sampling Device ded. sample port	Time 1145 Temp. 80	Begin Purge 1320 End Purge 1335
Water Column (feet)	120.06	Pump: Depth (ft brp) — Type — Voltage — HP —	Skies clear	Gallons Purged 3.5 CVs Purged 4.0
Casing Capacity (Diameter 4 ") (gallons per foot)	0.66	Monitor Well Recharge Rate: Slow ____ Fast ~	Wind (mph) ~ From —	DTW (ft brp) 130.00 Time 1330

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (mS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
1320	112.04	0	0	~		pump on			~		Q ≈ 21 gpm
1323	129.03	63	0.80	23.2	7.85	2.102	136.5	3.31	~~7.40~~ 12.72	—	
1324	129.37	84	1.1	22.5	7.49	2.170	105.5	3.82	0.41	—	
1326	129.70	126	1.6	22.4	7.43	2.072	94.5	4.60	0.96	—	
1328	129.89	168	2.1	22.4	7.36	2.185	94.4	5.00	3.98	—	
1330	130.00	210	2.7	22.3	7.35	2.184	97.8	5.11	5.73	—	
1332	NM	252	3.2	22.4	7.34	2.181	98.8	5.61	1.67	—	
1335	NM	315	4.0	~		end purge			~		collect samples

SAMPLE COLLECTION SAMPLE TIME 1332

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane		1 L Amber
8270 MOD 1,4 dioxane	1	1 L Amber

DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms. Y (N)

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

Add. analytes collected

HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 08/06/2020 **TASK:** 532.30 **WELL ID:** MW-30B

Time 1240 Static DTW (ft below reference point)	106.34	~~screen~~ ~~Casing~~ Volume (~~CV~~ SV) (gallons) 37.4	3 ~~CV~~ SV (gallons) 112.3
Casing Total Depth (ft below reference point)	616	Purging Device ded. pump	Sampling Device >100 ft peristaltic
pump to screen Water Column (feet)	96	Pump: Depth (ft brp) 520 Type grundfos	Voltage 240 HP —
Casing Capacity (Diameter 3 ") (gallons per foot)	0.39	Monitor Well Recharge Rate: Slow ____	Fast X

Weather Conditions: Time 1149 Temp. 80; Skies clear; Wind (mph) — From —

Initials: AMS/DJS; Begin Purge 1210 End Purge 1245; Gallons Purged 130 CVs Purged 13.5; DTW (ft brp) 134.97 Time 1240

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	....FIELD PARAMETERS.... Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)	Pump Frequency Hz	COMMENTS
12.10	106.34	0	0	~	~	pump	on	~			Q ≈ 5 gpm
1215	129.54	19	0.5	21.5	7.57	1.326	-136.6	0.28	4.38	—	
1219	131.40	38	1.0	21.6	7.27	1.857	-89.2	4.53	2.87	—	
1224	132.82	57	1.5	21.7	7.40	1.346	-88.6	3.12	1.57	—	
1230	133.80	76	2.0	21.7	7.40	1.429	-79.9	3.09	3.72	—	
1235	134.52	95	2.5	21.7	7.41	1.432	-71.5	3.03	4.19	—	
1240	134.97	113	3.0	21.7	7.41	1.434	-66.3	3.03	0.80	—	collect samples
1245	NM	130	3.5	~	~	pump	off	~			

SAMPLE COLLECTION SAMPLE TIME 1240

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane		1 L Amber

DUPLICATES / SPLITS / BLANKS? Y (N)
If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

APPENDIX B

LABORATORY ANALYTICAL REPORTS

GROUNDWATER SAMPLING ANALYTICAL RESULTS

ADVANCED TECHNOLOGY LABORATORIES

August 12, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001838
Client Reference : Raytheon Main, 532.30

Enclosed are the results for sample(s) received on August 04, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-32A	2001838-01	Water	8/04/20 9:48	8/04/20 17:15
MW-32C	2001838-02	Water	8/04/20 11:38	8/04/20 17:15
MW-39	2001838-03	Water	8/04/20 14:17	8/04/20 17:15
MW-33_2SV	2001838-04	Water	8/04/20 16:29	8/04/20 17:15
MW-33	2001838-05	Water	8/04/20 16:47	8/04/20 17:15
TB-080420	2001838-06	Water	8/04/20 9:30	8/04/20 17:15
MW-26C	2001838-07	Water	8/04/20 10:10	8/04/20 17:15
MW-28	2001838-08	Water	8/04/20 11:12	8/04/20 17:15
MW-09	2001838-09	Water	8/04/20 12:42	8/04/20 17:15
MW-18	2001838-10	Water	8/04/20 14:40	8/04/20 17:15
MW-20	2001838-11	Water	8/04/20 16:23	8/04/20 17:15
RB-080420	2001838-12	Water	8/04/20 16:45	8/04/20 17:15

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

Client Sample ID: MW-32A

Lab ID: 2001838-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:45	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 16:45	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 16:45	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 16:45	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:45	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:45	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:45	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 16:45	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 16:45	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 16:45	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 16:45	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 16:45	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 16:45	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 16:45	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 16:45	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 16:45	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:45	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 16:45	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 16:45	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 16:45	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 16:45	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:45	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 16:45	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:45	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:45	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 16:45	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 16:45	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 16:45	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 16:45	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:45	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:45	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 16:45	
Chloroform	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:45	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 16:45	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 16:45	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:45	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 16:45	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-32A

Lab ID: 2001838-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 16:45	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 16:45	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:45	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 16:45	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:45	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 16:45	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 16:45	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:45	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:45	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 16:45	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:45	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:45	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:45	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:45	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:45	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 16:45	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:45	
Trichloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:45	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 16:45	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:45	
Surrogate: 1,2-Dichloroethane-d4	*116 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 16:45*	
Surrogate: 4-Bromofluorobenzene	*96.8 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 16:45*	
Surrogate: Dibromofluoromethane	*112 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 16:45*	
Surrogate: Toluene-d8	*103 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 16:45*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-32A

Lab ID: 2001838-01

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/07/20 16:34	
Surrogate: 1,2-Dichlorobenzene-d4	*76.8 %*	*13 - 99*			B0H0107	08/07/2020	*08/07/20 16:34*	
Surrogate: 2-Fluorobiphenyl	*106 %*	*8 - 111*			B0H0107	08/07/2020	*08/07/20 16:34*	
Surrogate: 4-Terphenyl-d14	*83.8 %*	*12 - 113*			B0H0107	08/07/2020	*08/07/20 16:34*	
Surrogate: Nitrobenzene-d5	*59.7 %*	*15 - 121*			B0H0107	08/07/2020	*08/07/20 16:34*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

Client Sample ID: MW-32C

Lab ID: 2001838-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:06	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 17:06	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 17:06	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 17:06	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:06	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:06	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:06	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 17:06	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 17:06	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 17:06	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 17:06	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 17:06	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 17:06	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 17:06	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 17:06	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 17:06	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:06	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 17:06	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 17:06	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 17:06	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 17:06	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:06	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 17:06	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:06	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:06	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 17:06	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 17:06	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 17:06	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 17:06	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:06	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:06	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 17:06	
Chloroform	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:06	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 17:06	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 17:06	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:06	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 17:06	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-32C

Lab ID: 2001838-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 17:06	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 17:06	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:06	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 17:06	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:06	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 17:06	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 17:06	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:06	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:06	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 17:06	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:06	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:06	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:06	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:06	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:06	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 17:06	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:06	
Trichloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:06	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 17:06	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:06	
Surrogate: 1,2-Dichloroethane-d4	*109 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 17:06*	
Surrogate: 4-Bromofluorobenzene	*86.6 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 17:06*	
Surrogate: Dibromofluoromethane	*108 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 17:06*	
Surrogate: Toluene-d8	*100 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 17:06*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-32C

Lab ID: 2001838-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/07/20 17:01	
Surrogate: 1,2-Dichlorobenzene-d4	*72.6 %*		*13 - 99*		B0H0107	08/07/2020	*08/07/20 17:01*	
Surrogate: 2-Fluorobiphenyl	*95.8 %*		*8 - 111*		B0H0107	08/07/2020	*08/07/20 17:01*	
Surrogate: 4-Terphenyl-d14	*81.0 %*		*12 - 113*		B0H0107	08/07/2020	*08/07/20 17:01*	
Surrogate: Nitrobenzene-d5	*55.7 %*		*15 - 121*		B0H0107	08/07/2020	*08/07/20 17:01*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-39

Lab ID: 2001838-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:27	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 17:27	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 17:27	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 17:27	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:27	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:27	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:27	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 17:27	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 17:27	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 17:27	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 17:27	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 17:27	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 17:27	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 17:27	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 17:27	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 17:27	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:27	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 17:27	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 17:27	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 17:27	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 17:27	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:27	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 17:27	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:27	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:27	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 17:27	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 17:27	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 17:27	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 17:27	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:27	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:27	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 17:27	
Chloroform	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:27	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 17:27	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 17:27	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:27	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 17:27	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-39

Lab ID: 2001838-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 17:27	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 17:27	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:27	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 17:27	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:27	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 17:27	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 17:27	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:27	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:27	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 17:27	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:27	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:27	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:27	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:27	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:27	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 17:27	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:27	
Trichloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:27	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 17:27	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:27	
Surrogate: 1,2-Dichloroethane-d4	*108 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 17:27*	
Surrogate: 4-Bromofluorobenzene	*89.9 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 17:27*	
Surrogate: Dibromofluoromethane	*107 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 17:27*	
Surrogate: Toluene-d8	*99.7 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 17:27*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-39

Lab ID: 2001838-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/07/20 17:28	
Surrogate: 1,2-Dichlorobenzene-d4	*70.2 %*		*13 - 99*		B0H0107	08/07/2020	*08/07/20 17:28*	
Surrogate: 2-Fluorobiphenyl	*97.4 %*		*8 - 111*		B0H0107	08/07/2020	*08/07/20 17:28*	
Surrogate: 4-Terphenyl-d14	*82.7 %*		*12 - 113*		B0H0107	08/07/2020	*08/07/20 17:28*	
Surrogate: Nitrobenzene-d5	*52.2 %*		*15 - 121*		B0H0107	08/07/2020	*08/07/20 17:28*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-33_2SV

Lab ID: 2001838-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:48	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 17:48	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 17:48	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 17:48	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:48	
1,1-Dichloroethene	**3.0**	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:48	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:48	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 17:48	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 17:48	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 17:48	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 17:48	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 17:48	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 17:48	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 17:48	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 17:48	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 17:48	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:48	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 17:48	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 17:48	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 17:48	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 17:48	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:48	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 17:48	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:48	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:48	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 17:48	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 17:48	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 17:48	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 17:48	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:48	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:48	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 17:48	
Chloroform	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:48	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 17:48	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 17:48	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:48	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 17:48	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-33_2SV

Lab ID: 2001838-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 17:48	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 17:48	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:48	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 17:48	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:48	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 17:48	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 17:48	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 17:48	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:48	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 17:48	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:48	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:48	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:48	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:48	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:48	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 17:48	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 17:48	
Trichloroethene	**0.36**	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 17:48	J
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 17:48	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 17:48	
Surrogate: 1,2-Dichloroethane-d4	*110 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 17:48*	
Surrogate: 4-Bromofluorobenzene	*91.9 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 17:48*	
Surrogate: Dibromofluoromethane	*108 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 17:48*	
Surrogate: Toluene-d8	*101 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 17:48*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-33_2SV

Lab ID: 2001838-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/07/20 17:55	
Surrogate: 1,2-Dichlorobenzene-d4	*70.4 %*	*13 - 99*			B0H0107	08/07/2020	*08/07/20 17:55*	
Surrogate: 2-Fluorobiphenyl	*91.8 %*	*8 - 111*			B0H0107	08/07/2020	*08/07/20 17:55*	
Surrogate: 4-Terphenyl-d14	*74.3 %*	*12 - 113*			B0H0107	08/07/2020	*08/07/20 17:55*	
Surrogate: Nitrobenzene-d5	*52.2 %*	*15 - 121*			B0H0107	08/07/2020	*08/07/20 17:55*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

Client Sample ID: MW-33

Lab ID: 2001838-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 19:13	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 19:13	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 19:13	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 19:13	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 19:13	
1,1-Dichloroethene	**3.3**	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:13	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:13	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 19:13	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 19:13	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 19:13	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 19:13	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 19:13	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 19:13	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 19:13	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 19:13	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 19:13	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:13	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 19:13	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 19:13	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 19:13	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 19:13	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 19:13	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 19:13	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 19:13	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:13	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 19:13	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 19:13	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 19:13	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 19:13	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 19:13	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:13	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 19:13	
Chloroform	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 19:13	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 19:13	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 19:13	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:13	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 19:13	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-33

Lab ID: 2001838-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 19:13	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 19:13	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:13	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 19:13	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 19:13	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 19:13	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 19:13	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 19:13	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 19:13	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 19:13	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:13	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 19:13	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:13	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 19:13	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 19:13	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 19:13	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 19:13	
Trichloroethene	**0.40**	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 19:13	J
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 19:13	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:13	
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 19:13*	
Surrogate: 4-Bromofluorobenzene	*92.9 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 19:13*	
Surrogate: Dibromofluoromethane	*113 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 19:13*	
Surrogate: Toluene-d8	*103 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 19:13*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-33

Lab ID: 2001838-05

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/07/20 18:22	
Surrogate: 1,2-Dichlorobenzene-d4	*61.6 %*		*13 - 99*		B0H0107	08/07/2020	*08/07/20 18:22*	
Surrogate: 2-Fluorobiphenyl	*80.4 %*		*8 - 111*		B0H0107	08/07/2020	*08/07/20 18:22*	
Surrogate: 4-Terphenyl-d14	*63.8 %*		*12 - 113*		B0H0107	08/07/2020	*08/07/20 18:22*	
Surrogate: Nitrobenzene-d5	*46.9 %*		*15 - 121*		B0H0107	08/07/2020	*08/07/20 18:22*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

Client Sample ID: TB-080420

Lab ID: 2001838-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 15:42	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 15:42	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 15:42	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 15:42	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 15:42	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 15:42	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 15:42	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 15:42	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 15:42	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 15:42	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 15:42	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 15:42	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 15:42	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 15:42	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 15:42	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 15:42	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 15:42	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 15:42	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 15:42	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 15:42	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 15:42	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 15:42	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 15:42	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 15:42	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 15:42	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 15:42	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 15:42	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 15:42	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 15:42	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 15:42	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 15:42	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 15:42	
Chloroform	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 15:42	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 15:42	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 15:42	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 15:42	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 15:42	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: TB-080420

Lab ID: 2001838-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 15:42	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 15:42	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 15:42	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 15:42	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 15:42	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 15:42	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 15:42	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 15:42	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 15:42	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 15:42	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 15:42	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 15:42	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 15:42	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 15:42	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 15:42	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 15:42	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 15:42	
Trichloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 15:42	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 15:42	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 15:42	
Surrogate: 1,2-Dichloroethane-d4	*110 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 15:42*	
Surrogate: 4-Bromofluorobenzene	*95.0 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 15:42*	
Surrogate: Dibromofluoromethane	*111 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 15:42*	
Surrogate: Toluene-d8	*108 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 15:42*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-26C

Lab ID: 2001838-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:09	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 18:09	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 18:09	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 18:09	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:09	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:09	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:09	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 18:09	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 18:09	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 18:09	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 18:09	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 18:09	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 18:09	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 18:09	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 18:09	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 18:09	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:09	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 18:09	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 18:09	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 18:09	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 18:09	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:09	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 18:09	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:09	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:09	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 18:09	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 18:09	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 18:09	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 18:09	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:09	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:09	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 18:09	
Chloroform	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:09	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 18:09	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 18:09	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:09	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 18:09	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-26C

Lab ID: 2001838-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 18:09	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 18:09	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:09	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 18:09	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:09	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 18:09	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 18:09	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:09	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:09	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 18:09	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:09	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:09	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:09	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:09	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:09	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 18:09	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:09	
Trichloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:09	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 18:09	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:09	
Surrogate: 1,2-Dichloroethane-d4	*115 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 18:09*	
Surrogate: 4-Bromofluorobenzene	*90.4 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 18:09*	
Surrogate: Dibromofluoromethane	*113 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 18:09*	
Surrogate: Toluene-d8	*99.5 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 18:09*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-26C

Lab ID: 2001838-07

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/07/20 18:50	
Surrogate: 1,2-Dichlorobenzene-d4	*55.0 %*		*13 - 99*		B0H0107	08/07/2020	*08/07/20 18:50*	
Surrogate: 2-Fluorobiphenyl	*72.1 %*		*8 - 111*		B0H0107	08/07/2020	*08/07/20 18:50*	
Surrogate: 4-Terphenyl-d14	*70.1 %*		*12 - 113*		B0H0107	08/07/2020	*08/07/20 18:50*	
Surrogate: Nitrobenzene-d5	*37.8 %*		*15 - 121*		B0H0107	08/07/2020	*08/07/20 18:50*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

Client Sample ID: MW-28

Lab ID: 2001838-08

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:31	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 18:31	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 18:31	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 18:31	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:31	
1,1-Dichloroethene	**0.38**	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:31	J
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:31	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 18:31	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 18:31	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 18:31	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 18:31	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 18:31	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 18:31	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 18:31	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 18:31	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 18:31	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:31	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 18:31	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 18:31	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 18:31	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 18:31	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:31	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 18:31	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:31	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:31	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 18:31	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 18:31	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 18:31	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 18:31	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:31	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:31	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 18:31	
Chloroform	**0.13**	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:31	J
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 18:31	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 18:31	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:31	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 18:31	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-28

Lab ID: 2001838-08

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 18:31	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 18:31	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:31	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 18:31	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:31	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 18:31	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 18:31	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:31	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:31	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 18:31	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:31	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:31	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:31	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:31	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:31	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 18:31	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:31	
Trichloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:31	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 18:31	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:31	
Surrogate: 1,2-Dichloroethane-d4	*110 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 18:31*	
Surrogate: 4-Bromofluorobenzene	*91.1 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 18:31*	
Surrogate: Dibromofluoromethane	*109 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 18:31*	
Surrogate: Toluene-d8	*102 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 18:31*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-28

Lab ID: 2001838-08

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/07/20 19:17	
Surrogate: 1,2-Dichlorobenzene-d4	*71.7 %*		*13 - 99*		B0H0107	08/07/2020	*08/07/20 19:17*	
Surrogate: 2-Fluorobiphenyl	*94.3 %*		*8 - 111*		B0H0107	08/07/2020	*08/07/20 19:17*	
Surrogate: 4-Terphenyl-d14	*85.8 %*		*12 - 113*		B0H0107	08/07/2020	*08/07/20 19:17*	
Surrogate: Nitrobenzene-d5	*55.1 %*		*15 - 121*		B0H0107	08/07/2020	*08/07/20 19:17*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

Client Sample ID: MW-09

Lab ID: 2001838-09

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:52	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 18:52	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 18:52	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 18:52	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:52	
1,1-Dichloroethene	**0.41**	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:52	J
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:52	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 18:52	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 18:52	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 18:52	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 18:52	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 18:52	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 18:52	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 18:52	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 18:52	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 18:52	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:52	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 18:52	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 18:52	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 18:52	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 18:52	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:52	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 18:52	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:52	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:52	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 18:52	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 18:52	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 18:52	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 18:52	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:52	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:52	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 18:52	
Chloroform	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:52	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 18:52	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 18:52	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:52	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 18:52	

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Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

Client Sample ID: MW-09

Lab ID: 2001838-09

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 18:52	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 18:52	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:52	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 18:52	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:52	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 18:52	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 18:52	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 18:52	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:52	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 18:52	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:52	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:52	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:52	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:52	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:52	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 18:52	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 18:52	
Trichloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 18:52	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 18:52	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 18:52	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 18:52*	
Surrogate: 4-Bromofluorobenzene	*92.0 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 18:52*	
Surrogate: Dibromofluoromethane	*116 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 18:52*	
Surrogate: Toluene-d8	*97.2 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 18:52*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-09

Lab ID: 2001838-09

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/07/20 19:45	
Surrogate: 1,2-Dichlorobenzene-d4	*66.8 %*		*13 - 99*		B0H0107	08/07/2020	*08/07/20 19:45*	
Surrogate: 2-Fluorobiphenyl	*85.1 %*		*8 - 111*		B0H0107	08/07/2020	*08/07/20 19:45*	
Surrogate: 4-Terphenyl-d14	*77.7 %*		*12 - 113*		B0H0107	08/07/2020	*08/07/20 19:45*	
Surrogate: Nitrobenzene-d5	*46.5 %*		*15 - 121*		B0H0107	08/07/2020	*08/07/20 19:45*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-18

Lab ID: 2001838-10

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:24	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 16:24	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 16:24	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 16:24	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:24	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:24	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:24	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 16:24	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 16:24	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 16:24	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 16:24	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 16:24	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 16:24	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 16:24	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 16:24	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 16:24	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:24	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 16:24	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 16:24	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 16:24	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 16:24	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:24	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 16:24	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:24	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:24	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 16:24	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 16:24	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 16:24	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 16:24	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:24	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:24	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 16:24	
Chloroform	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:24	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 16:24	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 16:24	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:24	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 16:24	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-18

Lab ID: 2001838-10

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 16:24	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 16:24	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:24	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 16:24	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:24	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 16:24	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 16:24	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:24	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:24	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 16:24	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:24	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:24	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:24	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:24	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:24	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 16:24	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:24	
Trichloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:24	
Trichlorofluoromethane	**0.57**	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 16:24	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:24	
Surrogate: 1,2-Dichloroethane-d4	*107 %*		*59 - 158*		B0H0052	08/05/2020	*08/05/20 16:24*	
Surrogate: 4-Bromofluorobenzene	*93.3 %*		*71 - 127*		B0H0052	08/05/2020	*08/05/20 16:24*	
Surrogate: Dibromofluoromethane	*104 %*		*66 - 147*		B0H0052	08/05/2020	*08/05/20 16:24*	
Surrogate: Toluene-d8	*106 %*		*77 - 138*		B0H0052	08/05/2020	*08/05/20 16:24*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-18

Lab ID: 2001838-10

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/07/20 20:12	
Surrogate: 1,2-Dichlorobenzene-d4	*74.5 %*		*13 - 99*		B0H0107	08/07/2020	*08/07/20 20:12*	
Surrogate: 2-Fluorobiphenyl	*99.0 %*		*8 - 111*		B0H0107	08/07/2020	*08/07/20 20:12*	
Surrogate: 4-Terphenyl-d14	*80.5 %*		*12 - 113*		B0H0107	08/07/2020	*08/07/20 20:12*	
Surrogate: Nitrobenzene-d5	*56.2 %*		*15 - 121*		B0H0107	08/07/2020	*08/07/20 20:12*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

Client Sample ID: MW-20

Lab ID: 2001838-11

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 19:34	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 19:34	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 19:34	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 19:34	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 19:34	
1,1-Dichloroethene	**0.93**	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:34	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:34	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 19:34	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 19:34	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 19:34	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 19:34	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 19:34	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 19:34	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 19:34	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 19:34	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 19:34	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:34	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 19:34	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 19:34	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 19:34	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 19:34	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 19:34	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 19:34	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 19:34	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:34	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 19:34	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 19:34	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 19:34	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 19:34	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 19:34	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:34	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 19:34	
Chloroform	**1.5**	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 19:34	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 19:34	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 19:34	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:34	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 19:34	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-20

Lab ID: 2001838-11

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 19:34	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 19:34	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:34	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 19:34	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 19:34	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 19:34	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 19:34	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 19:34	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 19:34	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 19:34	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:34	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 19:34	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:34	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 19:34	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 19:34	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 19:34	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 19:34	
Trichloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 19:34	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 19:34	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 19:34	
Surrogate: 1,2-Dichloroethane-d4	*116 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 19:34*	
Surrogate: 4-Bromofluorobenzene	*89.2 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 19:34*	
Surrogate: Dibromofluoromethane	*112 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 19:34*	
Surrogate: Toluene-d8	*104 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 19:34*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: MW-20

Lab ID: 2001838-11

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/07/20 20:39	
Surrogate: 1,2-Dichlorobenzene-d4	*107 %*	*13 - 99*			B0H0107	08/07/2020	*08/07/20 20:39*	S1
Surrogate: 2-Fluorobiphenyl	*127 %*	*8 - 111*			B0H0107	08/07/2020	*08/07/20 20:39*	S1
Surrogate: 4-Terphenyl-d14	*104 %*	*12 - 113*			B0H0107	08/07/2020	*08/07/20 20:39*	
Surrogate: Nitrobenzene-d5	*73.9 %*	*15 - 121*			B0H0107	08/07/2020	*08/07/20 20:39*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: RB-080420

Lab ID: 2001838-12

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:03	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 16:03	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0052	08/05/2020	08/05/20 16:03	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0052	08/05/2020	08/05/20 16:03	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:03	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:03	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:03	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0052	08/05/2020	08/05/20 16:03	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 16:03	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 16:03	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 16:03	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 16:03	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0052	08/05/2020	08/05/20 16:03	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 16:03	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 16:03	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 16:03	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:03	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 16:03	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 16:03	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0052	08/05/2020	08/05/20 16:03	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0052	08/05/2020	08/05/20 16:03	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:03	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 16:03	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:03	
Benzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:03	
Bromobenzene	ND	0.50	0.21	1	B0H0052	08/05/2020	08/05/20 16:03	
Bromodichloromethane	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 16:03	
Bromoform	ND	0.50	0.20	1	B0H0052	08/05/2020	08/05/20 16:03	
Bromomethane	ND	0.50	0.40	1	B0H0052	08/05/2020	08/05/20 16:03	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:03	
Chlorobenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:03	
Chloroethane	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 16:03	
Chloroform	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:03	
Chloromethane	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 16:03	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0052	08/05/2020	08/05/20 16:03	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:03	
Dibromochloromethane	ND	0.50	0.16	1	B0H0052	08/05/2020	08/05/20 16:03	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: RB-080420

Lab ID: 2001838-12

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0052	08/05/2020	08/05/20 16:03	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0052	08/05/2020	08/05/20 16:03	
Ethylbenzene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:03	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0052	08/05/2020	08/05/20 16:03	
Isopropylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:03	
m,p-Xylene	ND	1.0	0.19	1	B0H0052	08/05/2020	08/05/20 16:03	
Methylene chloride	ND	1.0	0.71	1	B0H0052	08/05/2020	08/05/20 16:03	
n-Butylbenzene	ND	0.50	0.11	1	B0H0052	08/05/2020	08/05/20 16:03	
n-Propylbenzene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:03	
Naphthalene	ND	0.50	0.41	1	B0H0052	08/05/2020	08/05/20 16:03	
o-Xylene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:03	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:03	
Styrene	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:03	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:03	
Tetrachloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:03	
Toluene	ND	0.50	0.12	1	B0H0052	08/05/2020	08/05/20 16:03	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0052	08/05/2020	08/05/20 16:03	
Trichloroethene	ND	0.50	0.10	1	B0H0052	08/05/2020	08/05/20 16:03	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0052	08/05/2020	08/05/20 16:03	
Vinyl chloride	ND	0.50	0.13	1	B0H0052	08/05/2020	08/05/20 16:03	
Surrogate: 1,2-Dichloroethane-d4	*107 %*	*59 - 158*			B0H0052	08/05/2020	*08/05/20 16:03*	
Surrogate: 4-Bromofluorobenzene	*86.1 %*	*71 - 127*			B0H0052	08/05/2020	*08/05/20 16:03*	
Surrogate: Dibromofluoromethane	*105 %*	*66 - 147*			B0H0052	08/05/2020	*08/05/20 16:03*	
Surrogate: Toluene-d8	*102 %*	*77 - 138*			B0H0052	08/05/2020	*08/05/20 16:03*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Client Sample ID: RB-080420

Lab ID: 2001838-12

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0107	08/07/2020	08/10/20 14:53	
Surrogate: 1,2-Dichlorobenzene-d4	*78.3 %*	*13 - 99*			B0H0107	08/07/2020	*08/10/20 14:53*	
Surrogate: 2-Fluorobiphenyl	*125 %*	*8 - 111*			B0H0107	08/07/2020	*08/10/20 14:53*	S1
Surrogate: 4-Terphenyl-d14	*73.5 %*	*12 - 113*			B0H0107	08/07/2020	*08/10/20 14:53*	
Surrogate: Nitrobenzene-d5	*65.7 %*	*15 - 121*			B0H0107	08/07/2020	*08/10/20 14:53*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0052 - MSVOA_LL_W										
Blank (B0H0052-BLK1)					Prepared: 8/5/2020 Analyzed: 8/5/2020					
1,1,1,2-Tetrachloroethane	ND	0.50	0.11							
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,1-Dichloropropene	ND	0.50	0.13							
1,2,3-Trichloropropane	ND	0.50	0.39							
1,2,3-Trichlorobenzene	ND	0.50	0.18							
1,2,4-Trichlorobenzene	ND	0.50	0.16							
1,2,4-Trimethylbenzene	ND	0.50	0.14							
1,2-Dibromo-3-chloropropane	ND	0.50	0.41							
1,2-Dibromoethane	ND	0.50	0.24							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3,5-Trimethylbenzene	ND	0.50	0.13							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,3-Dichloropropane	ND	0.50	0.21							
1,4-Dichlorobenzene	ND	0.50	0.17							
2,2-Dichloropropane	ND	0.50	0.38							
2-Chlorotoluene	ND	0.50	0.11							
4-Chlorotoluene	ND	0.50	0.12							
4-Isopropyltoluene	ND	0.50	0.11							
Benzene	ND	0.50	0.13							
Bromobenzene	ND	0.50	0.21							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,2-Dichloroethene	ND	0.50	0.14							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Dibromomethane	ND	0.50	0.19							
Dichlorodifluoromethane	ND	0.50	0.18							

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0052 - MSVOA_LL_W (continued)										
Blank (B0H0052-BLK1) - Continued					Prepared: 8/5/2020 Analyzed: 8/5/2020					
Ethylbenzene	ND	0.50	0.13							
Hexachlorobutadiene	ND	0.50	0.15							
Isopropylbenzene	ND	0.50	0.10							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
n-Butylbenzene	ND	0.50	0.11							
n-Propylbenzene	ND	0.50	0.10							
Naphthalene	ND	0.50	0.41							
o-Xylene	ND	0.50	0.13							
sec-Butylbenzene	ND	0.50	0.09							
Styrene	ND	0.50	0.13							
tert-Butylbenzene	ND	0.50	0.09							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*27.11*			*25.0000*		*108*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*21.46*			*25.0000*		*85.8*	*71 - 127*			
Surrogate: Dibromofluoromethan	*27.58*			*25.0000*		*110*	*66 - 147*			
Surrogate: Toluene-d8	*24.74*			*25.0000*		*99.0*	*77 - 138*			
LCS (B0H0052-BS1)					Prepared: 8/5/2020 Analyzed: 8/5/2020					
1,1,1,2-Tetrachloroethane	16.9600	0.50	0.11	20.0000		84.8	71 - 133			
1,1,1-Trichloroethane	18.9200	0.50	0.21	20.0000		94.6	62 - 124			
1,1,2,2-Tetrachloroethane	21.5200	0.50	0.36	20.0000		108	50 - 131			
1,1,2-Trichloroethane	17.3600	0.50	0.25	20.0000		86.8	77 - 121			
1,1-Dichloroethane	17.2600	0.50	0.09	20.0000		86.3	52 - 130			
1,1-Dichloroethene	16.1500	0.50	0.13	20.0000		80.8	61 - 136			
1,1-Dichloropropene	17.9700	0.50	0.13	20.0000		89.8	80 - 128			
1,2,3-Trichloropropane	19.2300	0.50	0.39	20.0000		96.2	59 - 126			
1,2,3-Trichlorobenzene	17.3700	0.50	0.18	20.0000		86.8	69 - 138			
1,2,4-Trichlorobenzene	18.0500	0.50	0.16	20.0000		90.2	78 - 125			
1,2,4-Trimethylbenzene	22.5600	0.50	0.14	20.0000		113	70 - 126			
1,2-Dibromo-3-chloropropane	19.1100	0.50	0.41	20.0000		95.6	58 - 127			
1,2-Dibromoethane	16.6400	0.50	0.24	20.0000		83.2	76 - 120			
1,2-Dichlorobenzene	18.9200	0.50	0.20	20.0000		94.6	82 - 117			
1,2-Dichloroethane	15.1900	0.50	0.20	20.0000		76.0	66 - 126			
1,2-Dichloropropane	19.0900	0.50	0.15	20.0000		95.4	70 - 117			
1,3,5-Trimethylbenzene	20.9400	0.50	0.13	20.0000		105	71 - 125			

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Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0052 - MSVOA_LL_W (continued)										
LCS (B0H0052-BS1) - Continued					Prepared: 8/5/2020 Analyzed: 8/5/2020					
1,3-Dichlorobenzene	18.2400	0.50	0.16	20.0000		91.2	81 - 116			
1,3-Dichloropropane	17.9200	0.50	0.21	20.0000		89.6	69 - 124			
1,4-Dichlorobenzene	17.8600	0.50	0.17	20.0000		89.3	80 - 114			
2,2-Dichloropropane	21.5300	0.50	0.38	20.0000		108	58 - 132			
2-Chlorotoluene	20.2500	0.50	0.11	20.0000		101	71 - 119			
4-Chlorotoluene	21.0100	0.50	0.12	20.0000		105	72 - 122			
4-Isopropyltoluene	21.2600	0.50	0.11	20.0000		106	69 - 126			
Benzene	16.8200	0.50	0.13	20.0000		84.1	80 - 116			
Bromobenzene	18.4200	0.50	0.21	20.0000		92.1	77 - 118			
Bromodichloromethane	18.5400	0.50	0.14	20.0000		92.7	73 - 118			
Bromoform	15.8200	0.50	0.20	20.0000		79.1	65 - 133			
Bromomethane	17.8600	0.50	0.40	20.0000		89.3	7 - 205			
Carbon tetrachloride	16.5000	0.50	0.09	20.0000		82.5	63 - 133			
Chlorobenzene	17.7300	0.50	0.13	20.0000		88.6	86 - 113			
Chloroethane	14.0500	0.50	0.15	20.0000		70.2	66 - 141			
Chloroform	18.4300	0.50	0.11	20.0000		92.2	63 - 127			
Chloromethane	9.22000	0.50	0.12	20.0000		46.1	0 - 207			
cis-1,2-Dichloroethene	17.4200	0.50	0.14	20.0000		87.1	64 - 126			
cis-1,3-Dichloropropene	19.5100	0.50	0.13	20.0000		97.6	70 - 141			
Dibromochloromethane	16.1900	0.50	0.16	20.0000		81.0	67 - 135			
Dibromomethane	15.0900	0.50	0.19	20.0000		75.4	74 - 118			
Dichlorodifluoromethane	12.4800	0.50	0.18	20.0000		62.4	14 - 181			
Ethylbenzene	19.2600	0.50	0.13	20.0000		96.3	77 - 118			
Hexachlorobutadiene	18.3700	0.50	0.15	20.0000		91.8	66 - 125			
Isopropylbenzene	21.0700	0.50	0.10	20.0000		105	68 - 137			
m,p-Xylene	39.6200	1.0	0.19	40.0000		99.0	78 - 126			
Methylene chloride	17.7700	1.0	0.71	20.0000		88.8	51 - 149			
n-Butylbenzene	23.6400	0.50	0.11	20.0000		118	63 - 127			
n-Propylbenzene	22.3100	0.50	0.10	20.0000		112	69 - 124			
Naphthalene	15.3500	0.50	0.41	20.0000		76.8	60 - 126			
o-Xylene	19.8100	0.50	0.13	20.0000		99.0	79 - 126			
sec-Butylbenzene	22.5500	0.50	0.09	20.0000		113	69 - 124			
Styrene	22.1800	0.50	0.13	20.0000		111	80 - 127			
tert-Butylbenzene	20.6500	0.50	0.09	20.0000		103	71 - 124			
Tetrachloroethene	15.7300	0.50	0.10	20.0000		78.6	73 - 129			
Toluene	18.8700	0.50	0.12	20.0000		94.4	78 - 121			
trans-1,2-Dichloroethene	16.4700	0.50	0.09	20.0000		82.4	58 - 141			
Trichloroethene	15.8600	0.50	0.10	20.0000		79.3	73 - 126			
Trichlorofluoromethane	17.9100	0.50	0.23	20.0000		89.6	62 - 146			
Vinyl chloride	15.9000	0.50	0.13	20.0000		79.5	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*25.55*			*25.0000*		*102*	*59 - 158*			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0052 - MSVOA_LL_W (continued)										
LCS (B0H0052-BS1) - Continued						Prepared: 8/5/2020 Analyzed: 8/5/2020				
Surrogate: 4-Bromofluorobenzene	*25.31*			*25.0000*		*101*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.96*			*25.0000*		*104*	*66 - 147*			
Surrogate: Toluene-d8	*26.88*			*25.0000*		*108*	*77 - 138*			
LCS Dup (B0H0052-BSD1)						Prepared: 8/5/2020 Analyzed: 8/5/2020				
1,1,1,2-Tetrachloroethane	18.1700	0.50	0.11	20.0000		90.8	71 - 133	6.89	20	
1,1,1-Trichloroethane	17.3600	0.50	0.21	20.0000		86.8	62 - 124	8.60	20	
1,1,2,2-Tetrachloroethane	22.6400	0.50	0.36	20.0000		113	50 - 131	5.07	20	
1,1,2-Trichloroethane	18.0600	0.50	0.25	20.0000		90.3	77 - 121	3.95	20	
1,1-Dichloroethane	17.1400	0.50	0.09	20.0000		85.7	52 - 130	0.698	20	
1,1-Dichloroethene	15.3600	0.50	0.13	20.0000		76.8	61 - 136	5.01	20	
1,1-Dichloropropene	16.5500	0.50	0.13	20.0000		82.8	80 - 128	8.23	20	
1,2,3-Trichloropropane	19.9700	0.50	0.39	20.0000		99.8	59 - 126	3.78	20	
1,2,3-Trichlorobenzene	17.9500	0.50	0.18	20.0000		89.8	69 - 138	3.28	20	
1,2,4-Trichlorobenzene	18.2400	0.50	0.16	20.0000		91.2	78 - 125	1.05	20	
1,2,4-Trimethylbenzene	22.0700	0.50	0.14	20.0000		110	70 - 126	2.20	20	
1,2-Dibromo-3-chloropropane	19.6500	0.50	0.41	20.0000		98.2	58 - 127	2.79	20	
1,2-Dibromoethane	18.4500	0.50	0.24	20.0000		92.2	76 - 120	10.3	20	
1,2-Dichlorobenzene	19.3700	0.50	0.20	20.0000		96.8	82 - 117	2.35	20	
1,2-Dichloroethane	16.5300	0.50	0.20	20.0000		82.6	66 - 126	8.45	20	
1,2-Dichloropropane	20.5300	0.50	0.15	20.0000		103	70 - 117	7.27	20	
1,3,5-Trimethylbenzene	21.0700	0.50	0.13	20.0000		105	71 - 125	0.619	20	
1,3-Dichlorobenzene	18.8800	0.50	0.16	20.0000		94.4	81 - 116	3.45	20	
1,3-Dichloropropane	20.0300	0.50	0.21	20.0000		100	69 - 124	11.1	20	
1,4-Dichlorobenzene	18.3200	0.50	0.17	20.0000		91.6	80 - 114	2.54	20	
2,2-Dichloropropane	19.5400	0.50	0.38	20.0000		97.7	58 - 132	9.69	20	
2-Chlorotoluene	21.0200	0.50	0.11	20.0000		105	71 - 119	3.73	20	
4-Chlorotoluene	22.0400	0.50	0.12	20.0000		110	72 - 122	4.79	20	
4-Isopropyltoluene	20.9900	0.50	0.11	20.0000		105	69 - 126	1.28	20	
Benzene	18.6200	0.50	0.13	20.0000		93.1	80 - 116	10.2	20	
Bromobenzene	18.9200	0.50	0.21	20.0000		94.6	77 - 118	2.68	20	
Bromodichloromethane	18.8900	0.50	0.14	20.0000		94.4	73 - 118	1.87	20	
Bromoform	17.7900	0.50	0.20	20.0000		89.0	65 - 133	11.7	20	
Bromomethane	17.5400	0.50	0.40	20.0000		87.7	7 - 205	1.81	20	
Carbon tetrachloride	15.5500	0.50	0.09	20.0000		77.8	63 - 133	5.93	20	
Chlorobenzene	18.5000	0.50	0.13	20.0000		92.5	86 - 113	4.25	20	
Chloroethane	13.6200	0.50	0.15	20.0000		68.1	66 - 141	3.11	20	
Chloroform	19.7100	0.50	0.11	20.0000		98.6	63 - 127	6.71	20	
Chloromethane	9.64000	0.50	0.12	20.0000		48.2	0 - 207	4.45	20	
cis-1,2-Dichloroethene	18.4000	0.50	0.14	20.0000		92.0	64 - 126	5.47	20	
cis-1,3-Dichloropropene	20.4000	0.50	0.13	20.0000		102	70 - 141	4.46	20	
Dibromochloromethane	18.3600	0.50	0.16	20.0000		91.8	67 - 135	12.6	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0052 - MSVOA_LL_W (continued)										
LCS Dup (B0H0052-BSD1) - Continued					Prepared: 8/5/2020 Analyzed: 8/5/2020					
Dibromomethane	15.9100	0.50	0.19	20.0000		79.6	74 - 118	5.29	20	
Dichlorodifluoromethane	10.5200	0.50	0.18	20.0000		52.6	14 - 181	17.0	20	
Ethylbenzene	19.1100	0.50	0.13	20.0000		95.6	77 - 118	0.782	20	
Hexachlorobutadiene	17.9100	0.50	0.15	20.0000		89.6	66 - 125	2.54	20	
Isopropylbenzene	20.2900	0.50	0.10	20.0000		101	68 - 137	3.77	20	
m,p-Xylene	39.1600	1.0	0.19	40.0000		97.9	78 - 126	1.17	20	
Methylene chloride	19.4100	1.0	0.71	20.0000		97.0	51 - 149	8.82	20	
n-Butylbenzene	22.8900	0.50	0.11	20.0000		114	63 - 127	3.22	20	
n-Propylbenzene	21.6400	0.50	0.10	20.0000		108	69 - 124	3.05	20	
Naphthalene	16.6000	0.50	0.41	20.0000		83.0	60 - 126	7.82	20	
o-Xylene	20.3000	0.50	0.13	20.0000		102	79 - 126	2.44	20	
sec-Butylbenzene	21.6100	0.50	0.09	20.0000		108	69 - 124	4.26	20	
Styrene	24.1300	0.50	0.13	20.0000		121	80 - 127	8.42	20	
tert-Butylbenzene	20.2600	0.50	0.09	20.0000		101	71 - 124	1.91	20	
Tetrachloroethene	15.2100	0.50	0.10	20.0000		76.0	73 - 129	3.36	20	
Toluene	18.6200	0.50	0.12	20.0000		93.1	78 - 121	1.33	20	
trans-1,2-Dichloroethene	16.7600	0.50	0.09	20.0000		83.8	58 - 141	1.75	20	
Trichloroethene	15.7100	0.50	0.10	20.0000		78.6	73 - 126	0.950	20	
Trichlorofluoromethane	14.7400	0.50	0.23	20.0000		73.7	62 - 146	19.4	20	
Vinyl chloride	13.8100	0.50	0.13	20.0000		69.0	61 - 137	14.1	20	
Surrogate: 1,2-Dichloroethane-d4	*24.34*			*25.0000*		*97.4*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.11*			*25.0000*		*100*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.21*			*25.0000*		*105*	*66 - 147*			
Surrogate: Toluene-d8	*25.76*			*25.0000*		*103*	*77 - 138*			
Matrix Spike (B0H0052-MS1)			**Source: 2001838-10**		Prepared: 8/5/2020 Analyzed: 8/5/2020					
1,1,1,2-Tetrachloroethane	18.9500	0.50	0.11	20.0000	ND	94.8	71 - 133			
1,1,1-Trichloroethane	23.3500	0.50	0.21	20.0000	ND	117	62 - 124			
1,1,2,2-Tetrachloroethane	25.8200	0.50	0.36	20.0000	ND	129	50 - 131			
1,1,2-Trichloroethane	19.3800	0.50	0.25	20.0000	ND	96.9	77 - 121			
1,1-Dichloroethane	21.7000	0.50	0.09	20.0000	ND	108	52 - 130			
1,1-Dichloroethene	22.2000	0.50	0.13	20.0000	ND	111	61 - 136			
1,1-Dichloropropene	22.7700	0.50	0.13	20.0000	ND	114	80 - 128			
1,2,3-Trichloropropane	22.7900	0.50	0.39	20.0000	ND	114	59 - 126			
1,2,3-Trichlorobenzene	19.1200	0.50	0.18	20.0000	ND	95.6	69 - 138			
1,2,4-Trichlorobenzene	19.9400	0.50	0.16	20.0000	ND	99.7	78 - 125			
1,2,4-Trimethylbenzene	25.1700	0.50	0.14	20.0000	ND	126	70 - 126			
1,2-Dibromo-3-chloropropane	19.1300	0.50	0.41	20.0000	ND	95.6	58 - 127			
1,2-Dibromoethane	19.3800	0.50	0.24	20.0000	ND	96.9	76 - 120			
1,2-Dichlorobenzene	21.7500	0.50	0.20	20.0000	ND	109	82 - 117			
1,2-Dichloroethane	18.2500	0.50	0.20	20.0000	ND	91.2	66 - 126			

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Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0052 - MSVOA_LL_W (continued)										
Matrix Spike (B0H0052-MS1) - Continued			**Source: 2001838-10**		Prepared: 8/5/2020 Analyzed: 8/5/2020					
1,2-Dichloropropane	22.5100	0.50	0.15	20.0000	ND	113	70 - 117			
1,3,5-Trimethylbenzene	25.3900	0.50	0.13	20.0000	ND	127	71 - 125			M2
1,3-Dichlorobenzene	21.2300	0.50	0.16	20.0000	ND	106	81 - 116			
1,3-Dichloropropane	22.3700	0.50	0.21	20.0000	ND	112	69 - 124			
1,4-Dichlorobenzene	20.8300	0.50	0.17	20.0000	ND	104	80 - 114			
2,2-Dichloropropane	25.7600	0.50	0.38	20.0000	ND	129	58 - 132			
2-Chlorotoluene	24.1300	0.50	0.11	20.0000	ND	121	71 - 119			M2
4-Chlorotoluene	26.0300	0.50	0.12	20.0000	ND	130	72 - 122			M2
4-Isopropyltoluene	23.3700	0.50	0.11	20.0000	ND	117	69 - 126			
Benzene	22.1300	0.50	0.13	20.0000	ND	111	80 - 116			
Bromobenzene	20.4600	0.50	0.21	20.0000	ND	102	77 - 118			
Bromodichloromethane	20.8400	0.50	0.14	20.0000	ND	104	73 - 118			
Bromoform	18.0300	0.50	0.20	20.0000	ND	90.2	65 - 133			
Bromomethane	21.9400	0.50	0.40	20.0000	ND	110	7 - 205			
Carbon tetrachloride	19.5400	0.50	0.09	20.0000	ND	97.7	63 - 133			
Chlorobenzene	20.3400	0.50	0.13	20.0000	ND	102	81 - 115			
Chloroethane	20.6300	0.50	0.15	20.0000	ND	103	66 - 141			
Chloroform	22.4400	0.50	0.11	20.0000	ND	112	63 - 127			
Chloromethane	15.8800	0.50	0.12	20.0000	ND	79.4	0 - 207			
cis-1,2-Dichloroethene	23.3600	0.50	0.14	20.0000	ND	117	64 - 126			
cis-1,3-Dichloropropene	23.4700	0.50	0.13	20.0000	ND	117	70 - 141			
Dibromochloromethane	21.1500	0.50	0.16	20.0000	ND	106	67 - 135			
Dibromomethane	16.9000	0.50	0.19	20.0000	ND	84.5	74 - 118			
Dichlorodifluoromethane	15.7900	0.50	0.18	20.0000	ND	79.0	14 - 181			
Ethylbenzene	23.8200	0.50	0.13	20.0000	ND	119	77 - 118			M2
Hexachlorobutadiene	20.5300	0.50	0.15	20.0000	ND	103	66 - 125			
Isopropylbenzene	25.3800	0.50	0.10	20.0000	ND	127	68 - 137			
m,p-Xylene	48.2800	1.0	0.19	40.0000	ND	121	78 - 126			
Methylene chloride	23.3000	1.0	0.71	20.0000	ND	116	51 - 149			
n-Butylbenzene	27.4000	0.50	0.11	20.0000	ND	137	63 - 127			M2
n-Propylbenzene	28.1600	0.50	0.10	20.0000	ND	141	69 - 124			M2
Naphthalene	16.8700	0.50	0.41	20.0000	ND	84.4	60 - 126			
o-Xylene	23.0900	0.50	0.13	20.0000	ND	115	79 - 126			
sec-Butylbenzene	26.5400	0.50	0.09	20.0000	ND	133	69 - 124			M2
Styrene	24.5200	0.50	0.13	20.0000	ND	123	80 - 127			
tert-Butylbenzene	23.0300	0.50	0.09	20.0000	ND	115	71 - 124			
Tetrachloroethene	18.9200	0.50	0.10	20.0000	ND	94.6	73 - 129			
Toluene	22.2200	0.50	0.12	20.0000	ND	111	78 - 121			
trans-1,2-Dichloroethene	21.0300	0.50	0.09	20.0000	ND	105	58 - 141			
Trichloroethene	18.4400	0.50	0.10	20.0000	ND	92.2	73 - 126			
Trichlorofluoromethane	22.6400	0.50	0.23	20.0000	0.570000	110	62 - 146			
Vinyl chloride	23.8800	0.50	0.13	20.0000	ND	119	61 - 137			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0052 - MSVOA_LL_W (continued)										
Matrix Spike (B0H0052-MS1) - Continued			**Source: 2001838-10**			Prepared: 8/5/2020 Analyzed: 8/5/2020				
Surrogate: 1,2-Dichloroethane-d4	*25.74*			*25.0000*		*103*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.69*			*25.0000*		*103*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.92*			*25.0000*		*104*	*66 - 147*			
Surrogate: Toluene-d8	*25.33*			*25.0000*		*101*	*77 - 138*			
Matrix Spike Dup (B0H0052-MSD1)			**Source: 2001838-10**			Prepared: 8/5/2020 Analyzed: 8/5/2020				
1,1,1,2-Tetrachloroethane	19.8900	0.50	0.11	20.0000	ND	99.4	71 - 133	4.84	20	
1,1,1-Trichloroethane	22.6700	0.50	0.21	20.0000	ND	113	62 - 124	2.96	20	
1,1,2,2-Tetrachloroethane	26.0200	0.50	0.36	20.0000	ND	130	50 - 131	0.772	20	
1,1,2-Trichloroethane	18.7500	0.50	0.25	20.0000	ND	93.8	77 - 121	3.30	20	
1,1-Dichloroethane	21.3300	0.50	0.09	20.0000	ND	107	52 - 130	1.72	20	
1,1-Dichloroethene	21.3100	0.50	0.13	20.0000	ND	107	61 - 136	4.09	20	
1,1-Dichloropropene	23.2500	0.50	0.13	20.0000	ND	116	80 - 128	2.09	20	
1,2,3-Trichloropropane	22.6700	0.50	0.39	20.0000	ND	113	59 - 126	0.528	20	
1,2,3-Trichlorobenzene	20.4000	0.50	0.18	20.0000	ND	102	69 - 138	6.48	20	
1,2,4-Trichlorobenzene	19.9400	0.50	0.16	20.0000	ND	99.7	78 - 125	0.00	20	
1,2,4-Trimethylbenzene	25.8200	0.50	0.14	20.0000	ND	129	70 - 126	2.55	20	M2
1,2-Dibromo-3-chloropropane	21.1400	0.50	0.41	20.0000	ND	106	58 - 127	9.98	20	
1,2-Dibromoethane	19.3500	0.50	0.24	20.0000	ND	96.8	76 - 120	0.155	20	
1,2-Dichlorobenzene	21.8400	0.50	0.20	20.0000	ND	109	82 - 117	0.413	20	
1,2-Dichloroethane	18.9900	0.50	0.20	20.0000	ND	95.0	66 - 126	3.97	20	
1,2-Dichloropropane	23.3300	0.50	0.15	20.0000	ND	117	70 - 117	3.58	20	
1,3,5-Trimethylbenzene	25.0600	0.50	0.13	20.0000	ND	125	71 - 125	1.31	20	M2
1,3-Dichlorobenzene	21.5000	0.50	0.16	20.0000	ND	108	81 - 116	1.26	20	
1,3-Dichloropropane	22.4900	0.50	0.21	20.0000	ND	112	69 - 124	0.535	20	
1,4-Dichlorobenzene	20.7200	0.50	0.17	20.0000	ND	104	80 - 114	0.529	20	
2,2-Dichloropropane	24.7200	0.50	0.38	20.0000	ND	124	58 - 132	4.12	20	
2-Chlorotoluene	24.0800	0.50	0.11	20.0000	ND	120	71 - 119	0.207	20	M2
4-Chlorotoluene	24.7300	0.50	0.12	20.0000	ND	124	72 - 122	5.12	20	M2
4-Isopropyltoluene	24.5300	0.50	0.11	20.0000	ND	123	69 - 126	4.84	20	
Benzene	22.0800	0.50	0.13	20.0000	ND	110	80 - 116	0.226	20	
Bromobenzene	20.7500	0.50	0.21	20.0000	ND	104	77 - 118	1.41	20	
Bromodichloromethane	21.2200	0.50	0.14	20.0000	ND	106	73 - 118	1.81	20	
Bromoform	17.8700	0.50	0.20	20.0000	ND	89.4	65 - 133	0.891	20	
Bromomethane	21.3000	0.50	0.40	20.0000	ND	106	7 - 205	2.96	20	
Carbon tetrachloride	19.4800	0.50	0.09	20.0000	ND	97.4	63 - 133	0.308	20	
Chlorobenzene	19.9500	0.50	0.13	20.0000	ND	99.8	81 - 115	1.94	20	
Chloroethane	17.6600	0.50	0.15	20.0000	ND	88.3	66 - 141	15.5	20	
Chloroform	21.7300	0.50	0.11	20.0000	ND	109	63 - 127	3.21	20	
Chloromethane	13.7500	0.50	0.12	20.0000	ND	68.8	0 - 207	14.4	20	
cis-1,2-Dichloroethene	22.2200	0.50	0.14	20.0000	ND	111	64 - 126	5.00	20	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0052 - MSVOA_LL_W (continued)										
Matrix Spike Dup (B0H0052-MSD1) - Continued			**Source: 2001838-10**		Prepared: 8/5/2020 Analyzed: 8/5/2020					
cis-1,3-Dichloropropene	23.2800	0.50	0.13	20.0000	ND	116	70 - 141	0.813	20	
Dibromochloromethane	20.1000	0.50	0.16	20.0000	ND	100	67 - 135	5.09	20	
Dibromomethane	17.9600	0.50	0.19	20.0000	ND	89.8	74 - 118	6.08	20	
Dichlorodifluoromethane	16.2200	0.50	0.18	20.0000	ND	81.1	14 - 181	2.69	20	
Ethylbenzene	23.5500	0.50	0.13	20.0000	ND	118	77 - 118	1.14	20	
Hexachlorobutadiene	21.4000	0.50	0.15	20.0000	ND	107	66 - 125	4.15	20	
Isopropylbenzene	24.4900	0.50	0.10	20.0000	ND	122	68 - 137	3.57	20	
m,p-Xylene	47.2000	1.0	0.19	40.0000	ND	118	78 - 126	2.26	20	
Methylene chloride	22.8600	1.0	0.71	20.0000	ND	114	51 - 149	1.91	20	
n-Butylbenzene	28.2000	0.50	0.11	20.0000	ND	141	63 - 127	2.88	20	M2
n-Propylbenzene	28.0600	0.50	0.10	20.0000	ND	140	69 - 124	0.356	20	M2
Naphthalene	17.8900	0.50	0.41	20.0000	ND	89.4	60 - 126	5.87	20	
o-Xylene	24.1100	0.50	0.13	20.0000	ND	121	79 - 126	4.32	20	
sec-Butylbenzene	26.8600	0.50	0.09	20.0000	ND	134	69 - 124	1.20	20	M2
Styrene	25.6900	0.50	0.13	20.0000	ND	128	80 - 127	4.66	20	M2
tert-Butylbenzene	23.5100	0.50	0.09	20.0000	ND	118	71 - 124	2.06	20	
Tetrachloroethene	19.1000	0.50	0.10	20.0000	ND	95.5	73 - 129	0.947	20	
Toluene	23.1900	0.50	0.12	20.0000	ND	116	78 - 121	4.27	20	
trans-1,2-Dichloroethene	21.3100	0.50	0.09	20.0000	ND	107	58 - 141	1.32	20	
Trichloroethene	17.7900	0.50	0.10	20.0000	ND	89.0	73 - 126	3.59	20	
Trichlorofluoromethane	21.6600	0.50	0.23	20.0000	0.570000	105	62 - 146	4.42	20	
Vinyl chloride	20.5400	0.50	0.13	20.0000	ND	103	61 - 137	15.0	20	
Surrogate: 1,2-Dichloroethane-d4	*25.72*			*25.0000*		*103*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*26.56*			*25.0000*		*106*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.10*			*25.0000*		*100*	*66 - 147*			
Surrogate: Toluene-d8	*26.65*			*25.0000*		*107*	*77 - 138*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/12/2020

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0107 - MSSEMI_W										
Blank (B0H0107-BLK1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,4-Dioxane	ND	0.20	0.05							
Surrogate: 1,2-Dichlorobenzene-d	*0.8259*			*1.00000*		*82.6*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*1.116*			*1.00000*		*112*	*8 - 111*			S1
Surrogate: 4-Terphenyl-d14	*0.9660*			*1.00000*		*96.6*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.6424*			*1.00000*		*64.2*	*15 - 121*			
LCS (B0H0107-BS1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,4-Dioxane	1.17654	0.20	0.05	1.00000		118	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*0.7167*			*1.00000*		*71.7*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.9307*			*1.00000*		*93.1*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.7352*			*1.00000*		*73.5*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.4716*			*1.00000*		*47.2*	*15 - 121*			
LCS Dup (B0H0107-BSD1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,4-Dioxane	1.17721	0.20	0.05	1.00000		118	75 - 155	0.0569	20	
Surrogate: 1,2-Dichlorobenzene-d	*0.7154*			*1.00000*		*71.5*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.9204*			*1.00000*		*92.0*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.7508*			*1.00000*		*75.1*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.4784*			*1.00000*		*47.8*	*15 - 121*			
Matrix Spike (B0H0107-MS1)			**Source: 2001838-10**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,4-Dioxane	1.26970	0.20	0.05	1.00000	ND	127	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*1.049*			*1.00000*		*105*	*13 - 99*			S3
Surrogate: 2-Fluorobiphenyl	*1.303*			*1.00000*		*130*	*8 - 111*			S3
Surrogate: 4-Terphenyl-d14	*1.051*			*1.00000*		*105*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.7574*			*1.00000*		*75.7*	*15 - 121*			
Matrix Spike Dup (B0H0107-MSD1)			**Source: 2001838-10**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,4-Dioxane	1.23245	0.20	0.05	1.00000	ND	123	75 - 155	2.98	20	
Surrogate: 1,2-Dichlorobenzene-d	*1.022*			*1.00000*		*102*	*13 - 99*			S3
Surrogate: 2-Fluorobiphenyl	*1.208*			*1.00000*		*121*	*8 - 111*			S3
Surrogate: 4-Terphenyl-d14	*1.050*			*1.00000*		*105*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.7339*			*1.00000*		*73.4*	*15 - 121*			

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/12/2020

Notes and Definitions

S3	Surrogate recovery outside of laboratory acceptance limit. Unable to confirm matrix effects.
S1	Surrogate recovery was above laboratory acceptance limit. No associated target analyte was detected in the sample.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY ▪ ENGINEERING

Date: 08/04/2020
Page 1 of 2

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: A. Janzon, D. Sealee

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	NaOH/AlCl3	NaOH/Zn		Ice	40-ml VOA	1 L Amber	250-ml poly	250-ml Amber	VOCs by EPA 8260B	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD	CO2 by SM4500	Dissolved Sulfide by SM4500 S2-d	Total Sulfide by SM-4500 S2-d	0 - 10	10- 100	100 - 1,000	>1,000	24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2001838-01	MW-32A	08/04/2020	0948	X		X				X	3				X						X						X			Report J Flags
02	MW-32C		1138	X		X				X	3		1		X	X											X			
03	MW-39		1417	X		X				X	3		1		X	X					X						X			
04	MW-33-295		1629	X		X				X	3		1		X	X					X						X			
05	MW-33		1647	X		X				X	3		1		X	X					X						X			
				X						X			1			X											X			

Total number of containers per analysis:

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
A Janzon / H+A	8/4/20 1715		8/4/20 17:15
	8/4/20 17:54	ATL	8/4/2020 1754

Laboratory
ATL
Attn: Tina Nguyen
3257 Walnut Ave
Signal Hill, CA 90755
562-989-4045

Total No. of Containers:

- ✓ No. of containers correct
- ✓ Received in good condition
- Custody seals secure
- ✓ Conforms to COC document

3.4 Temperature on receipt

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions
- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
- Note applicable preservatives, special instructions, and deviations from typical environmental samples.
- Consult project QA documents for specific instructions.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 8/4/20
Page 1 of 2

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: A. DONNELLY, R. ADAMS

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	MATRIX: Groundwater	MATRIX: Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	PRESERVATION: NaOH/AlCl3	PRESERVATION: NaOH/Zn	PRESERVATION:	PRESERVATION: Ice	CONTAINERS: 40-ml VOA	CONTAINERS:	CONTAINERS: 1 L Amber	CONTAINERS:	CONTAINERS: 250-ml poly	CONTAINERS: 250-ml Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B		ANALYSIS REQUESTED: 1,4 Dioxane 8270 SIM	ANALYSIS REQUESTED: 1,4-Dioxane 8270 MOD		ANALYSIS REQUESTED: CO2 by SM4500	ANALYSIS REQUESTED: Dissolved Sulfide by SM4500 S2-d	ANALYSIS REQUESTED: Total Sulfide by SM-4500 S2-d		Expected Concetration Range (ppb) for VOA's: 0 - 10	10- 100	100 - 1,000	>1,000		SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested
2008588-06	TB-080420	8/4/20	0930		X	X				X	2						X									X						X		
07	MW-26C		1010	X		X				X	3						X									X						X		
	↓		↓	X						X			1						X												X		
08	MW-28		1112	X		X				X	3						X									X						X		
	↓		↓	X						X			1						X												X		
09	MW-09		1242	X		X				X	3						X									X						X		
	↓		↓	X						X			1						X												X		
10	MW-18		1440	X		X				X	9						X									X						X		X
	↓		↓	X						X			3						X												X		X
11	MW-20		1623	X		X				X	3						X									X						X		
	↓		↓	X						X			1						X												X		
12	RB-080420		1645		X	X				X	3						X									X						X		
	↓		↓		X					X			1						X												X		

Total number of containers per analysis:

Total No. of Containers:

Laboratory
ATL
Attn: Tina Nguyen
3257 Walnut Ave
Signal Hill, CA 90755
562-989-4045

REMARKS
Report J Flags

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
A Donnelly / H+A	8/4/20 17:15	[signature] H+A	8/4/20 17:45
[signature] H+A	8/4/20 17:54	[signature] ATL	8/4/20 1754

- [ ] No. of containers correct
- [ ] Received in good condition
- [ ] Custody seals secure
- [ ] Conforms to COC document

_____ Temperature on receipt

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions
- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
- Note applicable preservatives, special instructions, and deviations from typical environmental samples.
- Consult project QA documents for specific instructions.

ADVANCED TECHNOLOGY LABORATORIES

August 19, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001839
Client Reference : Raytheon Main, 532.74

Enclosed are the results for sample(s) received on August 04, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/19/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-33	2001839-01	Water	8/04/20 16:47	8/04/20 17:15

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Samples for Carbon Dioxide by SM 4500-CO2 D analysis was subcontracted to Eurofins Calscience with CA-ELAP Cert. 2944.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/19/2020

Client Sample ID: MW-33

Lab ID: 2001839-01

Sulfide, Total by SM 4500-S=D — **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0063	08/05/2020	08/05/20 15:07	

Sulfide, Dissolved by SM 4500-S=D — **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0062	08/05/2020	08/05/20 14:53	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/19/2020

QUALITY CONTROL SECTION

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0063 - Prep_WC3_W										
Blank (B0H0063-BLK1)					Prepared: 8/5/2020 Analyzed: 8/5/2020					
Sulfide, Total	ND	0.010	0.006							
LCS (B0H0063-BS1)					Prepared: 8/5/2020 Analyzed: 8/5/2020					
Sulfide, Total	0.102000	0.010	0.006	0.112500		90.7	80 - 120			
Matrix Spike (B0H0063-MS1)			**Source: 2001839-01**		Prepared: 8/5/2020 Analyzed: 8/5/2020					
Sulfide, Total	0.097	0.010	0.006	0.112500	ND	86.2	80 - 120			
Matrix Spike Dup (B0H0063-MSD1)			**Source: 2001839-01**		Prepared: 8/5/2020 Analyzed: 8/5/2020					
Sulfide, Total	0.097	0.010	0.006	0.112500	ND	86.2	80 - 120	0.00	20	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/19/2020

Sulfide, Dissolved by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0062 - Prep_WC3_W										
Blank (B0H0062-BLK1)					Prepared: 8/5/2020 Analyzed: 8/5/2020					
Sulfide, Dissolved	ND	0.010	0.004							
LCS (B0H0062-BS1)					Prepared: 8/5/2020 Analyzed: 8/5/2020					
Sulfide, Dissolved	0.103000	0.010	0.004	0.112500		91.6	80 - 120			
Matrix Spike (B0H0062-MS1)			**Source: 2001839-01**		Prepared: 8/5/2020 Analyzed: 8/5/2020					
Sulfide, Dissolved	0.103000	0.010	0.004	0.112500	ND	91.6	80 - 120			
Matrix Spike Dup (B0H0062-MSD1)			**Source: 2001839-01**		Prepared: 8/5/2020 Analyzed: 8/5/2020					
Sulfide, Dissolved	0.102000	0.010	0.004	0.112500	ND	90.7	80 - 120	0.976	20	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/19/2020

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY ▪ ENGINEERING

Date: 8-4-20
Page 1 of 1

PROJECT: Raytheon Main
TASK NO.: 532.30 74
Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: D. SALEE

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	MATRIX: Groundwater	MATRIX: Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	PRESERVATION: NaOH/AlCl3	PRESERVATION: NaOH/Zn	PRESERVATION: Ice	CONTAINERS: 40-ml VOA	CONTAINERS: 1 L Amber	CONTAINERS: 250-ml poly	CONTAINERS: 250-ml Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	ANALYSIS REQUESTED: 1,4 Dioxane 8270 SIM	ANALYSIS REQUESTED: 1,4-Dioxane 8270 MOD	ANALYSIS REQUESTED: CO2 by SM4500	ANALYSIS REQUESTED: Dissolved Sulfide by SM4500 S2-d	ANALYSIS REQUESTED: Total Sulfide by SM-4500 S2-d	Expected Concetration Range (ppb) for VOA's: 0 - 10	10 - 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2007839-01	MW-33	8.04.20	1627	X					X				X				X									X			Report J Flags
	↓	↓	↓	X			X		X				X					X								X			
				X				X	X				X						X							X			

Total number of containers per analysis:

Laboratory
ATL
Attn: Tina Nguyen
3257 Walnut Ave
Signal Hill, CA 90755
562-989-4045

Total No. of Containers:

Relinquished By: / Company	Date / Time	Received By: / Company	Date / Time
[signature] / H+A	8/4/20 17:15	[signature]	8/4/2017:15
[signature] A/L	8/4/20 17:54	[signature] A/L	8/4/2020 1754

- ✓ No. of containers correct
- Received in good condition
- Custody seals secure
- ✓ Conforms to COC document

3.4 Temperature on receipt

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions
- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
- Note applicable preservatives, special instructions, and deviations from typical environmental samples.
- Consult project QA documents for specific instructions.

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 570-34871-1
Client Project/Site: 2001839

For:
Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, California 90807

Attn: Customer Relations ATL

Authorized for release by:
8/19/2020 8:46:37 AM

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

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Definitions/Glossary

Client: Advanced Technology Laboratories
Project/Site: 2001839

Job ID: 570-34871-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Advanced Technology Laboratories
Project/Site: 2001839

Job ID: 570-34871-1

Job ID: 570-34871-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-34871-1

Comments
No additional comments.

Receipt
The sample was received on 8/4/2020 6:17 PM; the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9º C.

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

Detection Summary

Client: Advanced Technology Laboratories
Project/Site: 2001839

Job ID: 570-34871-1

Client Sample ID: 2001839-01 / MW-33

Lab Sample ID: 570-34871-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	162		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Advanced Technology Laboratories
Project/Site: 2001839

Job ID: 570-34871-1

General Chemistry

Client Sample ID: 2001839-01 / MW-33
Date Collected: 08/04/20 16:47
Date Received: 08/04/20 18:17

Lab Sample ID: 570-34871-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	162		1.00	0.590	mg/L			08/12/20 09:45	1

QC Sample Results

Client: Advanced Technology Laboratories
Project/Site: 2001839

Job ID: 570-34871-1

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: MB 570-88376/1
Matrix: Water
Analysis Batch: 88376

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	ND		1.00	0.590	mg/L			08/12/20 09:45	1

Lab Sample ID: 570-34871-1 DU
Matrix: Water
Analysis Batch: 88376

Client Sample ID: 2001839-01 / MW-33
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon dioxide	162			160.9		mg/L				0.7	25

QC Association Summary

Client: Advanced Technology Laboratories
Project/Site: 2001839

Job ID: 570-34871-1

General Chemistry

Analysis Batch: 88376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-34871-1	2001839-01 / MW-33	Total/NA	Water	SM 4500 CO2 D	
MB 570-88376/1	Method Blank	Total/NA	Water	SM 4500 CO2 D	
LCS 570-88376/2	Lab Control Sample	Total/NA	Water	SM 4500 CO2 D	
LCSD 570-88376/3	Lab Control Sample Dup	Total/NA	Water	SM 4500 CO2 D	
570-34871-1 DU	2001839-01 / MW-33	Total/NA	Water	SM 4500 CO2 D	

Lab Chronicle

Client: Advanced Technology Laboratories
Project/Site: 2001839

Job ID: 570-34871-1

Client Sample ID: 2001839-01 / MW-33
Date Collected: 08/04/20 16:47
Date Received: 08/04/20 18:17

Lab Sample ID: 570-34871-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			88376	08/12/20 09:45	UAPD	ECL 1
	Instrument ID: PH1									

Laboratory References:

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

Accreditation/Certification Summary

Client: Advanced Technology Laboratories
Project/Site: 2001839

Job ID: 570-34871-1

Laboratory: Eurofins Calscience LLC

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

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

Method Summary

Client: Advanced Technology Laboratories
Project/Site: 2001839

Job ID: 570-34871-1

Method	Method Description	Protocol	Laboratory
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	ECL 1

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Advanced Technology Laboratories
Project/Site: 2001839

Job ID: 570-34871-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-34871-1	2001839-01 / MW-33	Water	08/04/20 16:47	08/04/20 18:17	

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 2001839

570-34871 Chain of Custody

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Tina Nguyen
(Tina.Nguyen@atlglobal.com)

RECEIVING LABORATORY:

Eurofins Calscience, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501
PO#: SC14802-STANDARD TAT

Sampler: D.SEATEE

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 2001839-01 / MW-33		**Water**	**08/04/20 16:47**	
4500CO2_C_SUB	**08/18/20 17:00**	08/04/20 23:59		
[Free Carbon Dioxide]				
1-Amber Unpres - 250mL				

Approved by: 8/4/2020
ATL Project Manager Date

8/4/2020
Released By ATL Sample Control Date

8/4/20
Received By Courier Date

8/4/20
Released By Courier Date

EST 8-4-2020 18:17
Received By Subcontract Laboratory Date

Released By Date

Received By Date

C:\PROGRAM FILES (X86)\PROMIUM\ELEMENT\PRINT\SCO_ATL(A.3).RPT

Page 1 of 1

1.9/1.9 SC6

Login Sample Receipt Checklist

Client: Advanced Technology Laboratories

Job Number: 570-34871-1

Login Number: 34871
List Number: 1
Creator: Cortez Diaz, Antonio

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ADVANCED TECHNOLOGY LABORATORIES

August 19, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001847
Client Reference : Raytheon Main, 532.74

Enclosed are the results for sample(s) received on August 05, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/19/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-36	2001847-01	Groundwater	8/05/20 15:44	8/05/20 17:40
MW-08	2001847-02	Groundwater	8/05/20 10:54	8/05/20 17:40
MW-32B	2001847-03	Groundwater	8/05/20 14:29	8/05/20 17:40
MW-3200B	2001847-04	Groundwater	8/05/20 14:35	8/05/20 17:40

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Samples for Carbon Dioxide by SM 4500-CO2 D analysis was subcontracted to Eurofins Calscience with CA-ELAP Cert. 2944.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/19/2020

Client Sample ID: MW-36

Lab ID: 2001847-01

Sulfide, Total by SM 4500-S=D — **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0129	08/10/2020	08/10/20 13:31	

Sulfide, Dissolved by SM 4500-S=D — **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0128	08/10/2020	08/10/20 13:05	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/19/2020

Client Sample ID: MW-08

Lab ID: 2001847-02

Sulfide, Total by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0129	08/10/2020	08/10/20 13:31	

Sulfide, Dissolved by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0128	08/10/2020	08/10/20 13:05	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/19/2020

Client Sample ID: MW-32B

Lab ID: 2001847-03

Sulfide, Total by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0129	08/10/2020	08/10/20 13:31	

Sulfide, Dissolved by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0128	08/10/2020	08/10/20 13:05	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/19/2020

Client Sample ID: MW-3200B

Lab ID: 2001847-04

Sulfide, Total by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0129	08/10/2020	08/10/20 13:31	

Sulfide, Dissolved by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0128	08/10/2020	08/10/20 13:05	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/19/2020

QUALITY CONTROL SECTION

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0129 - Prep_WC3_W										
Blank (B0H0129-BLK1)					Prepared: 8/10/2020 Analyzed: 8/10/2020					
Sulfide, Total	ND	0.010	0.006							
LCS (B0H0129-BS1)					Prepared: 8/10/2020 Analyzed: 8/10/2020					
Sulfide, Total	0.101000	0.010	0.006	0.112500		89.8	80 - 120			
Matrix Spike (B0H0129-MS1)			**Source: 2001847-04**		Prepared: 8/10/2020 Analyzed: 8/10/2020					
Sulfide, Total	0.097	0.010	0.006	0.112500	ND	86.2	80 - 120			
Matrix Spike Dup (B0H0129-MSD1)			**Source: 2001847-04**		Prepared: 8/10/2020 Analyzed: 8/10/2020					
Sulfide, Total	0.097	0.010	0.006	0.112500	ND	86.2	80 - 120	0.00	20	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/19/2020

Sulfide, Dissolved by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0128 - Prep_WC3_W										
Blank (B0H0128-BLK1)					Prepared: 8/10/2020 Analyzed: 8/10/2020					
Sulfide, Dissolved	ND	0.010	0.004							
LCS (B0H0128-BS1)					Prepared: 8/10/2020 Analyzed: 8/10/2020					
Sulfide, Dissolved	0.103000	0.010	0.004	0.112500		91.6	80 - 120			
Matrix Spike (B0H0128-MS1)			**Source: 2001847-04**		Prepared: 8/10/2020 Analyzed: 8/10/2020					
Sulfide, Dissolved	0.108000	0.010	0.004	0.112500	ND	96.0	80 - 120			
Matrix Spike Dup (B0H0128-MSD1)			**Source: 2001847-04**		Prepared: 8/10/2020 Analyzed: 8/10/2020					
Sulfide, Dissolved	0.108000	0.010	0.004	0.112500	ND	96.0	80 - 120	0.00	20	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/19/2020

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY ▪ ENGINEERING

Date: 8.5.20
Page 1 of 1

PROJECT: Raytheon Main

TASK NO.: ~~532.30~~ 532.74

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: AMJ, AMD, DJS, RA

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	NaOH/AlCl3	NaOH/Zn	Ice	CONTAINERS: 40-ml VOA	1 L Amber	250-ml poly	250-ml Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD	CO2 by SM4500	Dissolved Sulfide by SM4500 S2-d	Total Sulfide by SM-4500 S2-d	Expected Concetration Range (ppb) for VOA's: 0 - 10	10- 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested
2001847-01	MW-36	8.05.20	1544	X				X	X			X							X							X		
				X			X		X			X						X								X		
				X					X				X				X									X		
02	MW-08		1054	X			X	X	X			X							X							X		
				X			X		X			X						X								X		
				X					X				X				X									X		
03	MW-32B		1429	X				X	X			X							X							X		
				X			X		X			X						X								X		
				X					X				X				X									X		
04	MW-3200B		1435	X				X	X			X							X							X		
				X			X		X			X						X								X		
				X					X				X				X									X		

Total number of containers per analysis:

Total No. of Containers:

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
AD Mr / H+A	8/5/20 1740	DH ATL	08/5/20 17:40
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
		ATL	852020 1810

☐ No. of containers correct
☐ Received in good condition
☐ Custody seals secure
☐ Conforms to COC document

3.4 Temperature on receipt

Laboratory
ATL
Attn: Tina Nguyen
3257 Walnut Ave
Signal Hill, CA 90755
562-989-4045

REMARKS
Report J Flags

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions
- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
- Note applicable preservatives, special instructions, and deviations from typical environmental samples.
- Consult project QA documents for specific instructions.

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 570-35024-1
Client Project/Site: 2001847

For:
Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, California 90807

Attn: Tina Nguyen

Authorized for release by:
8/19/2020 8:49:30 AM

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

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Definitions/Glossary

Client: Advanced Technology Laboratories
Project/Site: 2001847

Job ID: 570-35024-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Advanced Technology Laboratories
Project/Site: 2001847

Job ID: 570-35024-1

Job ID: 570-35024-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-35024-1

Comments
No additional comments.

Receipt
The samples were received on 8/5/2020 7:05 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.0º C.

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

Detection Summary

Client: Advanced Technology Laboratories
Project/Site: 2001847

Job ID: 570-35024-1

Client Sample ID: 2001847-01 / MW-36 — Lab Sample ID: 570-35024-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	154		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

Client Sample ID: 2001847-02 / HW-08 — Lab Sample ID: 570-35024-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	208		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

Client Sample ID: 2001847-03 / MW-32B — Lab Sample ID: 570-35024-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	182		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

Client Sample ID: 2001847-04 / MW-3200B — Lab Sample ID: 570-35024-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	147		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Advanced Technology Laboratories
Project/Site: 2001847

Job ID: 570-35024-1

General Chemistry

Client Sample ID: 2001847-01 / MW-36
Date Collected: 08/05/20 15:44
Date Received: 08/05/20 19:05

Lab Sample ID: 570-35024-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	154		1.00	0.590	mg/L			08/12/20 09:45	1

Client Sample ID: 2001847-02 / HW-08
Date Collected: 08/05/20 10:54
Date Received: 08/05/20 19:05

Lab Sample ID: 570-35024-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	208		1.00	0.590	mg/L			08/12/20 09:45	1

Client Sample ID: 2001847-03 / MW-32B
Date Collected: 08/05/20 14:29
Date Received: 08/05/20 19:05

Lab Sample ID: 570-35024-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	182		1.00	0.590	mg/L			08/12/20 09:45	1

Client Sample ID: 2001847-04 / MW-3200B
Date Collected: 08/05/20 14:35
Date Received: 08/05/20 19:05

Lab Sample ID: 570-35024-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	147		1.00	0.590	mg/L			08/12/20 09:45	1

QC Sample Results

Client: Advanced Technology Laboratories
Project/Site: 2001847

Job ID: 570-35024-1

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: MB 570-88376/1
Matrix: Water
Analysis Batch: 88376

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	ND		1.00	0.590	mg/L			08/12/20 09:45	1

Lab Sample ID: 570-34871-A-1 DU
Matrix: Water
Analysis Batch: 88376

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon dioxide	162			160.9		mg/L				0.7	25

QC Association Summary

Client: Advanced Technology Laboratories
Project/Site: 2001847

Job ID: 570-35024-1

General Chemistry

Analysis Batch: 88376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35024-1	2001847-01 / MW-36	Total/NA	Water	SM 4500 CO2 D	
570-35024-2	2001847-02 / HW-08	Total/NA	Water	SM 4500 CO2 D	
570-35024-3	2001847-03 / MW-32B	Total/NA	Water	SM 4500 CO2 D	
570-35024-4	2001847-04 / MW-3200B	Total/NA	Water	SM 4500 CO2 D	
MB 570-88376/1	Method Blank	Total/NA	Water	SM 4500 CO2 D	
LCS 570-88376/2	Lab Control Sample	Total/NA	Water	SM 4500 CO2 D	
LCSD 570-88376/3	Lab Control Sample Dup	Total/NA	Water	SM 4500 CO2 D	
570-34871-A-1 DU	Duplicate	Total/NA	Water	SM 4500 CO2 D	

Lab Chronicle

Client: Advanced Technology Laboratories
Project/Site: 2001847

Job ID: 570-35024-1

Client Sample ID: 2001847-01 / MW-36

Lab Sample ID: 570-35024-1
Date Collected: 08/05/20 15:44
Matrix: Water
Date Received: 08/05/20 19:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			88376	08/12/20 09:45	UAPD	ECL 1
	Instrument ID: PH1									

Client Sample ID: 2001847-02 / HW-08

Lab Sample ID: 570-35024-2
Date Collected: 08/05/20 10:54
Matrix: Water
Date Received: 08/05/20 19:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			88376	08/12/20 09:45	UAPD	ECL 1
	Instrument ID: PH1									

Client Sample ID: 2001847-03 / MW-32B

Lab Sample ID: 570-35024-3
Date Collected: 08/05/20 14:29
Matrix: Water
Date Received: 08/05/20 19:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			88376	08/12/20 09:45	UAPD	ECL 1
	Instrument ID: PH1									

Client Sample ID: 2001847-04 / MW-3200B

Lab Sample ID: 570-35024-4
Date Collected: 08/05/20 14:35
Matrix: Water
Date Received: 08/05/20 19:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			88376	08/12/20 09:45	UAPD	ECL 1
	Instrument ID: PH1									

Laboratory References:

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

Accreditation/Certification Summary

Client: Advanced Technology Laboratories
Job ID: 570-35024-1
Project/Site: 2001847

Laboratory: Eurofins Calscience LLC

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

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

Method Summary

Client: Advanced Technology Laboratories
Project/Site: 2001847

Job ID: 570-35024-1

Method	Method Description	Protocol	Laboratory
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	ECL 1

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Advanced Technology Laboratories
Project/Site: 2001847

Job ID: 570-35024-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-35024-1	2001847-01 / MW-36	Water	08/05/20 15:44	08/05/20 19:05	
570-35024-2	2001847-02 / HW-08	Water	08/05/20 10:54	08/05/20 19:05	
570-35024-3	2001847-03 / MW-32B	Water	08/05/20 14:29	08/05/20 19:05	
570-35024-4	2001847-04 / MW-3200B	Water	08/05/20 14:35	08/05/20 19:05	

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 2001847

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Tina Nguyen
(Tina.Nguyen@atlglobal.com)

Sampler: AMJ,AMD,DJS,RA

RECEIVING LABORATORY:

Eurofins Calscience, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501
PO#: SC14803-STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 2001847-01 / MW-36		**Water**	**08/05/20 15:44**	**Report down to the MDL**
4500CO2_C_SUB	**08/19/20 17:00**	08/05/20 22:56		
[Free Carbon Dioxide]				
1-Amber Unpres - 250mL				
ATL Lab#: 2001847-02 / HW-08		**Water**	**08/05/20 10:54**	
4500CO2_C_SUB	**08/19/20 17:00**	08/05/20 18:06		
[Free Carbon Dioxide]				
1-Amber Unpres - 250mL				
ATL Lab#: 2001847-03 / MW-32B		**Water**	**08/05/20 14:29**	
4500CO2_C_SUB	**08/19/20 17:00**	08/05/20 21:41		
[Free Carbon Dioxide]				
1-Amber Unpres - 250mL				
ATL Lab#: 2001847-04 / MW-3200B		**Water**	**08/05/20 14:35**	
4500CO2_C_SUB	**08/19/20 17:00**	08/05/20 21:47		
[Free Carbon Dioxide]				
1-Amber Unpres - 250mL				

570-35024 Chain of Custody

Approved by: 8/5/2020
ATL Project Manager Date

8.5.2020
Released By ATL Sample Control Date

8/5/20
Received By Courier Date

8/5/20 19:05
Released By Courier Date

8/5/20 19:05
Received By Subcontract Laboratory Date

Released By Date

Received By Date

C:\PROGRAM FILES (X86)\PROMIUM\ELEMENT\PRINT\SCO_ATL(A.3).RPT

3.0/3.0 SC6

Page 1 of 1

Login Sample Receipt Checklist

Client: Advanced Technology Laboratories

Job Number: 570-35024-1

Login Number: 35024
List Number: 1
Creator: Le, Danny

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

August 13, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001851
Client Reference : Raytheon Main, 532.30

Enclosed are the results for sample(s) received on August 05, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-080520A	2001851-01	Water	8/05/20 8:30	8/05/20 17:40
MW-40	2001851-02	Groundwater	8/05/20 9:10	8/05/20 17:40
MW-15	2001851-03	Water	8/05/20 10:11	8/05/20 17:40
MW-08	2001851-04	Groundwater	8/05/20 10:54	8/05/20 17:40
RB-080520	2001851-05	Water	8/05/20 12:25	8/05/20 17:40
MW-16	2001851-06	Groundwater	8/05/20 13:20	8/05/20 17:40
MW-32B	2001851-07	Groundwater	8/05/20 14:29	8/05/20 17:40
MW-3200B	2001851-08	Groundwater	8/05/20 14:35	8/05/20 17:40
MW-43	2001851-09	Groundwater	8/05/20 9:09	8/05/20 17:40
MW-35C	2001851-10	Groundwater	8/05/20 10:42	8/05/20 17:40
MW-42	2001851-11	Groundwater	8/05/20 13:31	8/05/20 17:40
MW-4200	2001851-12	Groundwater	8/05/20 14:31	8/05/20 17:40
MW-36	2001851-13	Groundwater	8/05/20 15:44	8/05/20 17:40

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

MS/MSD for 1,4-Dioxane by EPA 8270C was not performed on sample MW-16 due to insufficient volume.

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/13/2020

Client Sample ID: TB-080520A

Lab ID: 2001851-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:12	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 15:12	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 15:12	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 15:12	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:12	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:12	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:12	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 15:12	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 15:12	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 15:12	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 15:12	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 15:12	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 15:12	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 15:12	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 15:12	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 15:12	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:12	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 15:12	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 15:12	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 15:12	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 15:12	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:12	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 15:12	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:12	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:12	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 15:12	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 15:12	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 15:12	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 15:12	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:12	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:12	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 15:12	
Chloroform	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:12	
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 15:12	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 15:12	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:12	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 15:12	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: TB-080520A

Lab ID: 2001851-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 15:12	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 15:12	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:12	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 15:12	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:12	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 15:12	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 15:12	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:12	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:12	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 15:12	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:12	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:12	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:12	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:12	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:12	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 15:12	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:12	
Trichloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:12	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 15:12	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:12	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 15:12*	
Surrogate: 4-Bromofluorobenzene	*89.2 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 15:12*	
Surrogate: Dibromofluoromethane	*110 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 15:12*	
Surrogate: Toluene-d8	*105 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 15:12*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-40

Lab ID: 2001851-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:55	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 15:55	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 15:55	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 15:55	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:55	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:55	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:55	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 15:55	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 15:55	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 15:55	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 15:55	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 15:55	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 15:55	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 15:55	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 15:55	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 15:55	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:55	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 15:55	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 15:55	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 15:55	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 15:55	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:55	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 15:55	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:55	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:55	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 15:55	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 15:55	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 15:55	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 15:55	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:55	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:55	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 15:55	
Chloroform	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:55	
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 15:55	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 15:55	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:55	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 15:55	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-40

Lab ID: 2001851-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 15:55	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 15:55	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:55	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 15:55	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:55	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 15:55	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 15:55	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:55	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:55	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 15:55	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:55	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:55	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:55	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:55	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:55	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 15:55	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:55	
Trichloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:55	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 15:55	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:55	
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 15:55*	
Surrogate: 4-Bromofluorobenzene	*91.8 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 15:55*	
Surrogate: Dibromofluoromethane	*111 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 15:55*	
Surrogate: Toluene-d8	*101 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 15:55*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-40

Lab ID: 2001851-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0144	08/10/2020	08/11/20 18:41	
Surrogate: 1,2-Dichlorobenzene-d4	*85.6 %*		*13 - 99*		B0H0144	08/10/2020	*08/11/20 18:41*	
Surrogate: 2-Fluorobiphenyl	*108 %*		*8 - 111*		B0H0144	08/10/2020	*08/11/20 18:41*	
Surrogate: 4-Terphenyl-d14	*80.6 %*		*12 - 113*		B0H0144	08/10/2020	*08/11/20 18:41*	
Surrogate: Nitrobenzene-d5	*65.5 %*		*15 - 121*		B0H0144	08/10/2020	*08/11/20 18:41*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-15

Lab ID: 2001851-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 17:20	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 17:20	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 17:20	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 17:20	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 17:20	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 17:20	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 17:20	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 17:20	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 17:20	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 17:20	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 17:20	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 17:20	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 17:20	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 17:20	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 17:20	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 17:20	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 17:20	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 17:20	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 17:20	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 17:20	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 17:20	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 17:20	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 17:20	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 17:20	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 17:20	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 17:20	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 17:20	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 17:20	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 17:20	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 17:20	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 17:20	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 17:20	
Chloroform	**0.22**	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 17:20	J
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 17:20	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 17:20	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 17:20	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 17:20	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-15

Lab ID: 2001851-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 17:20	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 17:20	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 17:20	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 17:20	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 17:20	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 17:20	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 17:20	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 17:20	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 17:20	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 17:20	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 17:20	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 17:20	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 17:20	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 17:20	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 17:20	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 17:20	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 17:20	
Trichloroethene	**3.2**	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 17:20	
Trichlorofluoromethane	**13**	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 17:20	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 17:20	
Surrogate: 1,2-Dichloroethane-d4	*120 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 17:20*	
Surrogate: 4-Bromofluorobenzene	*88.8 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 17:20*	
Surrogate: Dibromofluoromethane	*106 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 17:20*	
Surrogate: Toluene-d8	*99.2 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 17:20*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-08

Lab ID: 2001851-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 19:06	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 19:06	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 19:06	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 19:06	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 19:06	
1,1-Dichloroethene	**23**	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:06	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:06	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 19:06	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 19:06	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 19:06	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 19:06	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 19:06	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 19:06	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 19:06	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 19:06	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 19:06	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:06	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 19:06	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 19:06	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 19:06	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 19:06	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 19:06	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 19:06	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 19:06	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:06	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 19:06	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 19:06	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 19:06	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 19:06	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 19:06	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:06	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 19:06	
Chloroform	**0.40**	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 19:06	J
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 19:06	
cis-1,2-Dichloroethene	**2.5**	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 19:06	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:06	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 19:06	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-08

Lab ID: 2001851-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 19:06	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 19:06	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:06	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 19:06	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 19:06	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 19:06	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 19:06	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 19:06	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 19:06	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 19:06	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:06	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 19:06	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:06	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 19:06	
Tetrachloroethene	**0.11**	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 19:06	J
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 19:06	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 19:06	
Trichloroethene	**56**	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 19:06	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 19:06	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:06	
Surrogate: 1,2-Dichloroethane-d4	*120 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 19:06*	
Surrogate: 4-Bromofluorobenzene	*93.2 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 19:06*	
Surrogate: Dibromofluoromethane	*109 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 19:06*	
Surrogate: Toluene-d8	*101 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 19:06*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-08

Lab ID: 2001851-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**2.1**	0.20	0.05	1	B0H0144	08/10/2020	08/11/20 19:08	
Surrogate: 1,2-Dichlorobenzene-d4	*82.4 %*		*13 - 99*		B0H0144	08/10/2020	*08/11/20 19:08*	
Surrogate: 2-Fluorobiphenyl	*107 %*		*8 - 111*		B0H0144	08/10/2020	*08/11/20 19:08*	
Surrogate: 4-Terphenyl-d14	*81.0 %*		*12 - 113*		B0H0144	08/10/2020	*08/11/20 19:08*	
Surrogate: Nitrobenzene-d5	*61.8 %*		*15 - 121*		B0H0144	08/10/2020	*08/11/20 19:08*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: RB-080520

Lab ID: 2001851-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:33	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 15:33	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 15:33	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 15:33	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:33	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:33	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:33	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 15:33	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 15:33	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 15:33	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 15:33	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 15:33	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 15:33	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 15:33	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 15:33	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 15:33	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:33	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 15:33	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 15:33	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 15:33	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 15:33	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:33	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 15:33	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:33	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:33	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 15:33	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 15:33	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 15:33	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 15:33	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:33	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:33	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 15:33	
Chloroform	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:33	
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 15:33	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 15:33	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:33	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 15:33	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: RB-080520

Lab ID: 2001851-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 15:33	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 15:33	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:33	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 15:33	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:33	
m,p-Xylene	**0.24**	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 15:33	J
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 15:33	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 15:33	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:33	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 15:33	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:33	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:33	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:33	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:33	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:33	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 15:33	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 15:33	
Trichloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 15:33	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 15:33	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 15:33	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 15:33*	
Surrogate: 4-Bromofluorobenzene	*94.4 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 15:33*	
Surrogate: Dibromofluoromethane	*112 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 15:33*	
Surrogate: Toluene-d8	*104 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 15:33*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: RB-080520

Lab ID: 2001851-05

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0144	08/10/2020	08/11/20 19:34	
Surrogate: 1,2-Dichlorobenzene-d4	*79.4 %*		*13 - 99*		B0H0144	08/10/2020	*08/11/20 19:34*	
Surrogate: 2-Fluorobiphenyl	*101 %*		*8 - 111*		B0H0144	08/10/2020	*08/11/20 19:34*	
Surrogate: 4-Terphenyl-d14	*85.3 %*		*12 - 113*		B0H0144	08/10/2020	*08/11/20 19:34*	
Surrogate: Nitrobenzene-d5	*59.1 %*		*15 - 121*		B0H0144	08/10/2020	*08/11/20 19:34*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/13/2020

Client Sample ID: MW-16

Lab ID: 2001851-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 22:17	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 22:17	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 22:17	
1,1,2-Trichloroethane	**0.66**	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 22:17	
1,1-Dichloroethane	**3.7**	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 22:17	
1,1-Dichloroethene	**590**	25	6.6	50	B0H0069	08/06/2020	08/06/20 21:55	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 22:17	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 22:17	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 22:17	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 22:17	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 22:17	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 22:17	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 22:17	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 22:17	
1,2-Dichloroethane	**0.41**	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 22:17	J
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 22:17	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 22:17	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 22:17	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 22:17	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 22:17	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 22:17	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 22:17	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 22:17	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 22:17	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 22:17	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 22:17	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 22:17	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 22:17	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 22:17	
Carbon tetrachloride	**0.32**	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 22:17	J
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 22:17	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 22:17	
Chloroform	**0.47**	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 22:17	J
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 22:17	
cis-1,2-Dichloroethene	**0.28**	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 22:17	J
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 22:17	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 22:17	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-16

Lab ID: 2001851-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 22:17	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 22:17	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 22:17	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 22:17	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 22:17	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 22:17	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 22:17	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 22:17	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 22:17	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 22:17	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 22:17	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 22:17	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 22:17	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 22:17	
Tetrachloroethene	**0.80**	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 22:17	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 22:17	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 22:17	
Trichloroethene	**3.5**	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 22:17	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 22:17	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 22:17	
Surrogate: 1,2-Dichloroethane-d4	*119 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 21:55*	
Surrogate: 1,2-Dichloroethane-d4	*121 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 22:17*	
Surrogate: 4-Bromofluorobenzene	*88.6 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 21:55*	
Surrogate: 4-Bromofluorobenzene	*94.6 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 22:17*	
Surrogate: Dibromofluoromethane	*112 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 22:17*	
Surrogate: Dibromofluoromethane	*112 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 21:55*	
Surrogate: Toluene-d8	*98.7 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 21:55*	
Surrogate: Toluene-d8	*102 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 22:17*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-16

Lab ID: 2001851-06

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**62**	2.0	0.84	1	B0H0167	08/12/2020	08/12/20 16:20	
Surrogate: 1,2-Dichlorobenzene-d4	*64.7 %*		*17 - 119*		B0H0167	08/12/2020	*08/12/20 16:20*	
Surrogate: 2-Fluorobiphenyl	*75.8 %*		*10 - 133*		B0H0167	08/12/2020	*08/12/20 16:20*	
Surrogate: 4-Terphenyl-d14	*94.1 %*		*5 - 139*		B0H0167	08/12/2020	*08/12/20 16:20*	
Surrogate: Nitrobenzene-d5	*71.9 %*		*13 - 150*		B0H0167	08/12/2020	*08/12/20 16:20*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/13/2020

Client Sample ID: MW-32B

Lab ID: 2001851-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 19:48	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 19:48	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 19:48	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 19:48	
1,1-Dichloroethane	**0.56**	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 19:48	
1,1-Dichloroethene	**52**	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:48	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:48	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 19:48	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 19:48	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 19:48	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 19:48	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 19:48	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 19:48	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 19:48	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 19:48	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 19:48	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:48	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 19:48	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 19:48	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 19:48	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 19:48	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 19:48	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 19:48	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 19:48	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:48	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 19:48	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 19:48	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 19:48	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 19:48	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 19:48	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:48	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 19:48	
Chloroform	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 19:48	
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 19:48	
cis-1,2-Dichloroethene	**1.4**	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 19:48	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:48	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 19:48	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-32B

Lab ID: 2001851-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 19:48	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 19:48	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:48	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 19:48	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 19:48	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 19:48	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 19:48	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 19:48	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 19:48	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 19:48	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:48	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 19:48	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:48	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 19:48	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 19:48	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 19:48	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 19:48	
Trichloroethene	**13**	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 19:48	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 19:48	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 19:48	
Surrogate: 1,2-Dichloroethane-d4	*117 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 19:48*	
Surrogate: 4-Bromofluorobenzene	*90.6 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 19:48*	
Surrogate: Dibromofluoromethane	*110 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 19:48*	
Surrogate: Toluene-d8	*103 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 19:48*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-32B

Lab ID: 2001851-07

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**1.7**	0.20	0.05	1	B0H0144	08/10/2020	08/11/20 20:01	
Surrogate: 1,2-Dichlorobenzene-d4	*79.5 %*		*13 - 99*		B0H0144	08/10/2020	*08/11/20 20:01*	
Surrogate: 2-Fluorobiphenyl	*99.8 %*		*8 - 111*		B0H0144	08/10/2020	*08/11/20 20:01*	
Surrogate: 4-Terphenyl-d14	*77.4 %*		*12 - 113*		B0H0144	08/10/2020	*08/11/20 20:01*	
Surrogate: Nitrobenzene-d5	*58.5 %*		*15 - 121*		B0H0144	08/10/2020	*08/11/20 20:01*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/13/2020

Client Sample ID: MW-3200B

Lab ID: 2001851-08

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 20:09	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 20:09	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 20:09	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 20:09	
1,1-Dichloroethane	**0.48**	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 20:09	J
1,1-Dichloroethene	**52**	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 20:09	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 20:09	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 20:09	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 20:09	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 20:09	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 20:09	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 20:09	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 20:09	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 20:09	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 20:09	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 20:09	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 20:09	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 20:09	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 20:09	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 20:09	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 20:09	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 20:09	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 20:09	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 20:09	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 20:09	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 20:09	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 20:09	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 20:09	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 20:09	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 20:09	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 20:09	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 20:09	
Chloroform	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 20:09	
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 20:09	
cis-1,2-Dichloroethene	**1.4**	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 20:09	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 20:09	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 20:09	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-3200B

Lab ID: 2001851-08

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 20:09	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 20:09	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 20:09	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 20:09	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 20:09	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 20:09	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 20:09	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 20:09	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 20:09	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 20:09	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 20:09	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 20:09	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 20:09	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 20:09	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 20:09	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 20:09	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 20:09	
Trichloroethene	**13**	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 20:09	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 20:09	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 20:09	
Surrogate: 1,2-Dichloroethane-d4	*121 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 20:09*	
Surrogate: 4-Bromofluorobenzene	*90.2 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 20:09*	
Surrogate: Dibromofluoromethane	*110 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 20:09*	
Surrogate: Toluene-d8	*100 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 20:09*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-3200B

Lab ID: 2001851-08

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**1.7**	0.20	0.05	1	B0H0144	08/10/2020	08/11/20 20:28	
Surrogate: 1,2-Dichlorobenzene-d4	*76.2 %*		*13 - 99*		B0H0144	08/10/2020	*08/11/20 20:28*	
Surrogate: 2-Fluorobiphenyl	*96.6 %*		*8 - 111*		B0H0144	08/10/2020	*08/11/20 20:28*	
Surrogate: 4-Terphenyl-d14	*85.9 %*		*12 - 113*		B0H0144	08/10/2020	*08/11/20 20:28*	
Surrogate: Nitrobenzene-d5	*56.9 %*		*15 - 121*		B0H0144	08/10/2020	*08/11/20 20:28*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-43

Lab ID: 2001851-09

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 16:16	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 16:16	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 16:16	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 16:16	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 16:16	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:16	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:16	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 16:16	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 16:16	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 16:16	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 16:16	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 16:16	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 16:16	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 16:16	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 16:16	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 16:16	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:16	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 16:16	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 16:16	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 16:16	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 16:16	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 16:16	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 16:16	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 16:16	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:16	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 16:16	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 16:16	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 16:16	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 16:16	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 16:16	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:16	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 16:16	
Chloroform	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 16:16	
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 16:16	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 16:16	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:16	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 16:16	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-43

Lab ID: 2001851-09

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 16:16	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 16:16	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:16	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 16:16	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 16:16	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 16:16	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 16:16	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 16:16	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 16:16	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 16:16	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:16	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 16:16	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:16	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 16:16	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 16:16	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 16:16	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 16:16	
Trichloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 16:16	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 16:16	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:16	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 16:16*	
Surrogate: 4-Bromofluorobenzene	*90.5 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 16:16*	
Surrogate: Dibromofluoromethane	*107 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 16:16*	
Surrogate: Toluene-d8	*98.4 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 16:16*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-43

Lab ID: 2001851-09

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0144	08/10/2020	08/11/20 20:55	
Surrogate: 1,2-Dichlorobenzene-d4	*86.5 %*		*13 - 99*		B0H0144	08/10/2020	*08/11/20 20:55*	
Surrogate: 2-Fluorobiphenyl	*104 %*		*8 - 111*		B0H0144	08/10/2020	*08/11/20 20:55*	
Surrogate: 4-Terphenyl-d14	*83.2 %*		*12 - 113*		B0H0144	08/10/2020	*08/11/20 20:55*	
Surrogate: Nitrobenzene-d5	*63.8 %*		*15 - 121*		B0H0144	08/10/2020	*08/11/20 20:55*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-35C

Lab ID: 2001851-10

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 16:37	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 16:37	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 16:37	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 16:37	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 16:37	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:37	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:37	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 16:37	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 16:37	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 16:37	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 16:37	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 16:37	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 16:37	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 16:37	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 16:37	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 16:37	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:37	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 16:37	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 16:37	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 16:37	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 16:37	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 16:37	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 16:37	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 16:37	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:37	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 16:37	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 16:37	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 16:37	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 16:37	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 16:37	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:37	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 16:37	
Chloroform	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 16:37	
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 16:37	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 16:37	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:37	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 16:37	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-35C

Lab ID: 2001851-10

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 16:37	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 16:37	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:37	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 16:37	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 16:37	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 16:37	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 16:37	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 16:37	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 16:37	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 16:37	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:37	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 16:37	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:37	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 16:37	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 16:37	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 16:37	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 16:37	
Trichloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 16:37	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 16:37	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 16:37	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 16:37*	
Surrogate: 4-Bromofluorobenzene	*92.6 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 16:37*	
Surrogate: Dibromofluoromethane	*109 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 16:37*	
Surrogate: Toluene-d8	*100 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 16:37*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-35C

Lab ID: 2001851-10

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0144	08/10/2020	08/11/20 21:22	
Surrogate: 1,2-Dichlorobenzene-d4	*84.2 %*	*13 - 99*			B0H0144	08/10/2020	*08/11/20 21:22*	
Surrogate: 2-Fluorobiphenyl	*104 %*	*8 - 111*			B0H0144	08/10/2020	*08/11/20 21:22*	
Surrogate: 4-Terphenyl-d14	*77.9 %*	*12 - 113*			B0H0144	08/10/2020	*08/11/20 21:22*	
Surrogate: Nitrobenzene-d5	*61.7 %*	*15 - 121*			B0H0144	08/10/2020	*08/11/20 21:22*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/13/2020

Client Sample ID: MW-42

Lab ID: 2001851-11

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 18:23	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 18:23	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 18:23	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 18:23	
1,1-Dichloroethane	**0.46**	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 18:23	J
1,1-Dichloroethene	**31**	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:23	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:23	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 18:23	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 18:23	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 18:23	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 18:23	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 18:23	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 18:23	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 18:23	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 18:23	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 18:23	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:23	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 18:23	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 18:23	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 18:23	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 18:23	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 18:23	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 18:23	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 18:23	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:23	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 18:23	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 18:23	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 18:23	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 18:23	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 18:23	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:23	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 18:23	
Chloroform	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 18:23	
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 18:23	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 18:23	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:23	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 18:23	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-42

Lab ID: 2001851-11

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 18:23	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 18:23	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:23	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 18:23	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 18:23	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 18:23	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 18:23	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 18:23	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 18:23	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 18:23	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:23	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 18:23	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:23	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 18:23	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 18:23	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 18:23	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 18:23	
Trichloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 18:23	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 18:23	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:23	
Surrogate: 1,2-Dichloroethane-d4	*117 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 18:23*	
Surrogate: 4-Bromofluorobenzene	*88.5 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 18:23*	
Surrogate: Dibromofluoromethane	*111 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 18:23*	
Surrogate: Toluene-d8	*104 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 18:23*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-42

Lab ID: 2001851-11

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**1.4**	0.20	0.05	1	B0H0144	08/10/2020	08/11/20 21:49	
Surrogate: 1,2-Dichlorobenzene-d4	*79.9 %*		*13 - 99*		B0H0144	08/10/2020	*08/11/20 21:49*	
Surrogate: 2-Fluorobiphenyl	*103 %*		*8 - 111*		B0H0144	08/10/2020	*08/11/20 21:49*	
Surrogate: 4-Terphenyl-d14	*86.5 %*		*12 - 113*		B0H0144	08/10/2020	*08/11/20 21:49*	
Surrogate: Nitrobenzene-d5	*61.2 %*		*15 - 121*		B0H0144	08/10/2020	*08/11/20 21:49*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-4200

Lab ID: 2001851-12

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 18:02	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 18:02	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 18:02	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 18:02	
1,1-Dichloroethane	**0.50**	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 18:02	
1,1-Dichloroethene	**33**	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:02	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:02	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 18:02	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 18:02	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 18:02	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 18:02	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 18:02	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 18:02	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 18:02	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 18:02	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 18:02	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:02	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 18:02	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 18:02	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 18:02	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 18:02	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 18:02	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 18:02	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 18:02	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:02	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 18:02	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 18:02	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 18:02	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 18:02	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 18:02	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:02	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 18:02	
Chloroform	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 18:02	
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 18:02	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 18:02	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:02	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 18:02	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-4200

Lab ID: 2001851-12

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 18:02	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 18:02	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:02	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 18:02	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 18:02	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 18:02	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 18:02	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 18:02	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 18:02	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 18:02	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:02	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 18:02	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:02	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 18:02	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 18:02	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 18:02	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 18:02	
Trichloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 18:02	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 18:02	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 18:02	
Surrogate: 1,2-Dichloroethane-d4	*121 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 18:02*	
Surrogate: 4-Bromofluorobenzene	*97.0 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 18:02*	
Surrogate: Dibromofluoromethane	*112 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 18:02*	
Surrogate: Toluene-d8	*102 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 18:02*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-4200

Lab ID: 2001851-12

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**1.3**	0.20	0.05	1	B0H0144	08/10/2020	08/11/20 22:15	
Surrogate: 1,2-Dichlorobenzene-d4	*89.3 %*		*13 - 99*		B0H0144	08/10/2020	*08/11/20 22:15*	
Surrogate: 2-Fluorobiphenyl	*111 %*		*8 - 111*		B0H0144	08/10/2020	*08/11/20 22:15*	
Surrogate: 4-Terphenyl-d14	*85.4 %*		*12 - 113*		B0H0144	08/10/2020	*08/11/20 22:15*	
Surrogate: Nitrobenzene-d5	*68.5 %*		*15 - 121*		B0H0144	08/10/2020	*08/11/20 22:15*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-36

Lab ID: 2001851-13

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 21:13	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 21:13	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0069	08/06/2020	08/06/20 21:13	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0069	08/06/2020	08/06/20 21:13	
1,1-Dichloroethane	**0.58**	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 21:13	
1,1-Dichloroethene	**60**	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 21:13	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 21:13	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0069	08/06/2020	08/06/20 21:13	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 21:13	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 21:13	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 21:13	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 21:13	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0069	08/06/2020	08/06/20 21:13	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 21:13	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 21:13	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 21:13	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 21:13	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 21:13	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 21:13	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0069	08/06/2020	08/06/20 21:13	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0069	08/06/2020	08/06/20 21:13	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 21:13	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 21:13	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 21:13	
Benzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 21:13	
Bromobenzene	ND	0.50	0.21	1	B0H0069	08/06/2020	08/06/20 21:13	
Bromodichloromethane	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 21:13	
Bromoform	ND	0.50	0.20	1	B0H0069	08/06/2020	08/06/20 21:13	
Bromomethane	ND	0.50	0.40	1	B0H0069	08/06/2020	08/06/20 21:13	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 21:13	
Chlorobenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 21:13	
Chloroethane	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 21:13	
Chloroform	**0.11**	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 21:13	J
Chloromethane	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 21:13	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0069	08/06/2020	08/06/20 21:13	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 21:13	
Dibromochloromethane	ND	0.50	0.16	1	B0H0069	08/06/2020	08/06/20 21:13	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/13/2020

Client Sample ID: MW-36

Lab ID: 2001851-13

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0069	08/06/2020	08/06/20 21:13	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0069	08/06/2020	08/06/20 21:13	
Ethylbenzene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 21:13	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0069	08/06/2020	08/06/20 21:13	
Isopropylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 21:13	
m,p-Xylene	ND	1.0	0.19	1	B0H0069	08/06/2020	08/06/20 21:13	
Methylene chloride	ND	1.0	0.71	1	B0H0069	08/06/2020	08/06/20 21:13	
n-Butylbenzene	ND	0.50	0.11	1	B0H0069	08/06/2020	08/06/20 21:13	
n-Propylbenzene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 21:13	
Naphthalene	ND	0.50	0.41	1	B0H0069	08/06/2020	08/06/20 21:13	
o-Xylene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 21:13	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 21:13	
Styrene	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 21:13	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 21:13	
Tetrachloroethene	ND	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 21:13	
Toluene	ND	0.50	0.12	1	B0H0069	08/06/2020	08/06/20 21:13	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0069	08/06/2020	08/06/20 21:13	
Trichloroethene	**0.26**	0.50	0.10	1	B0H0069	08/06/2020	08/06/20 21:13	J
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0069	08/06/2020	08/06/20 21:13	
Vinyl chloride	ND	0.50	0.13	1	B0H0069	08/06/2020	08/06/20 21:13	
Surrogate: 1,2-Dichloroethane-d4	*116 %*	*59 - 158*			B0H0069	08/06/2020	*08/06/20 21:13*	
Surrogate: 4-Bromofluorobenzene	*91.2 %*	*71 - 127*			B0H0069	08/06/2020	*08/06/20 21:13*	
Surrogate: Dibromofluoromethane	*107 %*	*66 - 147*			B0H0069	08/06/2020	*08/06/20 21:13*	
Surrogate: Toluene-d8	*103 %*	*77 - 138*			B0H0069	08/06/2020	*08/06/20 21:13*	

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Client Sample ID: MW-36

Lab ID: 2001851-13

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**8.2**	0.20	0.05	1	B0H0144	08/10/2020	08/11/20 22:42	
Surrogate: 1,2-Dichlorobenzene-d4	*85.9 %*		*13 - 99*		B0H0144	08/10/2020	*08/11/20 22:42*	
Surrogate: 2-Fluorobiphenyl	*106 %*		*8 - 111*		B0H0144	08/10/2020	*08/11/20 22:42*	
Surrogate: 4-Terphenyl-d14	*86.8 %*		*12 - 113*		B0H0144	08/10/2020	*08/11/20 22:42*	
Surrogate: Nitrobenzene-d5	*64.0 %*		*15 - 121*		B0H0144	08/10/2020	*08/11/20 22:42*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
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QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0069 - MSVOA_LL_W										
Blank (B0H0069-BLK1)					Prepared: 8/6/2020 Analyzed: 8/6/2020					
1,1,1,2-Tetrachloroethane	ND	0.50	0.11							
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,1-Dichloropropene	ND	0.50	0.13							
1,2,3-Trichloropropane	ND	0.50	0.39							
1,2,3-Trichlorobenzene	ND	0.50	0.18							
1,2,4-Trichlorobenzene	ND	0.50	0.16							
1,2,4-Trimethylbenzene	ND	0.50	0.14							
1,2-Dibromo-3-chloropropane	ND	0.50	0.41							
1,2-Dibromoethane	ND	0.50	0.24							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3,5-Trimethylbenzene	ND	0.50	0.13							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,3-Dichloropropane	ND	0.50	0.21							
1,4-Dichlorobenzene	ND	0.50	0.17							
2,2-Dichloropropane	ND	0.50	0.38							
2-Chlorotoluene	ND	0.50	0.11							
4-Chlorotoluene	ND	0.50	0.12							
4-Isopropyltoluene	ND	0.50	0.11							
Benzene	ND	0.50	0.13							
Bromobenzene	ND	0.50	0.21							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,2-Dichloroethene	ND	0.50	0.14							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Dibromomethane	ND	0.50	0.19							
Dichlorodifluoromethane	ND	0.50	0.18							

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San Diego , CA 92122	Reported : 08/13/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0069 - MSVOA_LL_W (continued)										
Blank (B0H0069-BLK1) - Continued					Prepared: 8/6/2020 Analyzed: 8/6/2020					
Ethylbenzene	ND	0.50	0.13							
Hexachlorobutadiene	ND	0.50	0.15							
Isopropylbenzene	ND	0.50	0.10							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
n-Butylbenzene	ND	0.50	0.11							
n-Propylbenzene	ND	0.50	0.10							
Naphthalene	ND	0.50	0.41							
o-Xylene	ND	0.50	0.13							
sec-Butylbenzene	ND	0.50	0.09							
Styrene	ND	0.50	0.13							
tert-Butylbenzene	ND	0.50	0.09							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*27.79*			*25.0000*		*111*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*22.72*			*25.0000*		*90.9*	*71 - 127*			
Surrogate: Dibromofluoromethan	*27.06*			*25.0000*		*108*	*66 - 147*			
Surrogate: Toluene-d8	*24.53*			*25.0000*		*98.1*	*77 - 138*			
LCS (B0H0069-BS1)					Prepared: 8/6/2020 Analyzed: 8/6/2020					
1,1,1,2-Tetrachloroethane	17.4100	0.50	0.11	20.0000		87.0	71 - 133			
1,1,1-Trichloroethane	17.9500	0.50	0.21	20.0000		89.8	62 - 124			
1,1,2,2-Tetrachloroethane	19.8500	0.50	0.36	20.0000		99.2	50 - 131			
1,1,2-Trichloroethane	18.2900	0.50	0.25	20.0000		91.4	77 - 121			
1,1-Dichloroethane	16.4700	0.50	0.09	20.0000		82.4	52 - 130			
1,1-Dichloroethene	15.0500	0.50	0.13	20.0000		75.2	61 - 136			
1,1-Dichloropropene	17.5400	0.50	0.13	20.0000		87.7	80 - 128			
1,2,3-Trichloropropane	18.5300	0.50	0.39	20.0000		92.6	59 - 126			
1,2,3-Trichlorobenzene	17.9800	0.50	0.18	20.0000		89.9	69 - 138			
1,2,4-Trichlorobenzene	17.8900	0.50	0.16	20.0000		89.4	78 - 125			
1,2,4-Trimethylbenzene	21.1700	0.50	0.14	20.0000		106	70 - 126			
1,2-Dibromo-3-chloropropane	20.0100	0.50	0.41	20.0000		100	58 - 127			
1,2-Dibromoethane	16.7900	0.50	0.24	20.0000		84.0	76 - 120			
1,2-Dichlorobenzene	18.6800	0.50	0.20	20.0000		93.4	82 - 117			
1,2-Dichloroethane	16.4500	0.50	0.20	20.0000		82.2	66 - 126			
1,2-Dichloropropane	18.7100	0.50	0.15	20.0000		93.6	70 - 117			
1,3,5-Trimethylbenzene	20.4100	0.50	0.13	20.0000		102	71 - 125			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0069 - MSVOA_LL_W (continued)										
LCS (B0H0069-BS1) - Continued					Prepared: 8/6/2020 Analyzed: 8/6/2020					
1,3-Dichlorobenzene	17.7500	0.50	0.16	20.0000		88.8	81 - 116			
1,3-Dichloropropane	18.4200	0.50	0.21	20.0000		92.1	69 - 124			
1,4-Dichlorobenzene	17.6300	0.50	0.17	20.0000		88.2	80 - 114			
2,2-Dichloropropane	19.2600	0.50	0.38	20.0000		96.3	58 - 132			
2-Chlorotoluene	19.1600	0.50	0.11	20.0000		95.8	71 - 119			
4-Chlorotoluene	20.8400	0.50	0.12	20.0000		104	72 - 122			
4-Isopropyltoluene	20.1700	0.50	0.11	20.0000		101	69 - 126			
Benzene	17.2400	0.50	0.13	20.0000		86.2	80 - 116			
Bromobenzene	17.8700	0.50	0.21	20.0000		89.4	77 - 118			
Bromodichloromethane	18.6000	0.50	0.14	20.0000		93.0	73 - 118			
Bromoform	17.7300	0.50	0.20	20.0000		88.6	65 - 133			
Bromomethane	14.5700	0.50	0.40	20.0000		72.8	7 - 205			
Carbon tetrachloride	16.4600	0.50	0.09	20.0000		82.3	63 - 133			
Chlorobenzene	17.4100	0.50	0.13	20.0000		87.0	86 - 113			
Chloroethane	13.0700	0.50	0.15	20.0000		65.4	66 - 141			L4
Chloroform	17.8500	0.50	0.11	20.0000		89.2	63 - 127			
Chloromethane	13.7300	0.50	0.12	20.0000		68.6	0 - 207			
cis-1,2-Dichloroethene	16.3700	0.50	0.14	20.0000		81.8	64 - 126			
cis-1,3-Dichloropropene	18.9500	0.50	0.13	20.0000		94.8	70 - 141			
Dibromochloromethane	18.5400	0.50	0.16	20.0000		92.7	67 - 135			
Dibromomethane	16.3900	0.50	0.19	20.0000		82.0	74 - 118			
Dichlorodifluoromethane	10.5100	0.50	0.18	20.0000		52.6	14 - 181			
Ethylbenzene	18.2300	0.50	0.13	20.0000		91.2	77 - 118			
Hexachlorobutadiene	18.7700	0.50	0.15	20.0000		93.8	66 - 125			
Isopropylbenzene	19.8300	0.50	0.10	20.0000		99.2	68 - 137			
m,p-Xylene	38.5700	1.0	0.19	40.0000		96.4	78 - 126			
Methylene chloride	18.2400	1.0	0.71	20.0000		91.2	51 - 149			
n-Butylbenzene	21.3000	0.50	0.11	20.0000		106	63 - 127			
n-Propylbenzene	20.6700	0.50	0.10	20.0000		103	69 - 124			
Naphthalene	15.3100	0.50	0.41	20.0000		76.6	60 - 126			
o-Xylene	19.1800	0.50	0.13	20.0000		95.9	79 - 126			
sec-Butylbenzene	20.5900	0.50	0.09	20.0000		103	69 - 124			
Styrene	22.1600	0.50	0.13	20.0000		111	80 - 127			
tert-Butylbenzene	18.9400	0.50	0.09	20.0000		94.7	71 - 124			
Tetrachloroethene	15.8400	0.50	0.10	20.0000		79.2	73 - 129			
Toluene	18.0700	0.50	0.12	20.0000		90.4	78 - 121			
trans-1,2-Dichloroethene	16.1900	0.50	0.09	20.0000		81.0	58 - 141			
Trichloroethene	15.3000	0.50	0.10	20.0000		76.5	73 - 126			
Trichlorofluoromethane	14.6700	0.50	0.23	20.0000		73.4	62 - 146			
Vinyl chloride	13.9000	0.50	0.13	20.0000		69.5	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*25.64*			*25.0000*		*103*	*59 - 158*			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0069 - MSVOA_LL_W (continued)										
LCS (B0H0069-BS1) - Continued						Prepared: 8/6/2020 Analyzed: 8/6/2020				
Surrogate: 4-Bromofluorobenzene	*25.88*			*25.0000*		*104*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.38*			*25.0000*		*102*	*66 - 147*			
Surrogate: Toluene-d8	*26.09*			*25.0000*		*104*	*77 - 138*			
LCS Dup (B0H0069-BSD1)						Prepared: 8/6/2020 Analyzed: 8/6/2020				
1,1,1,2-Tetrachloroethane	19.1400	0.50	0.11	20.0000		95.7	71 - 133	9.47	20	
1,1,1-Trichloroethane	19.3700	0.50	0.21	20.0000		96.8	62 - 124	7.61	20	
1,1,2,2-Tetrachloroethane	22.1100	0.50	0.36	20.0000		111	50 - 131	10.8	20	
1,1,2-Trichloroethane	18.9000	0.50	0.25	20.0000		94.5	77 - 121	3.28	20	
1,1-Dichloroethane	17.1000	0.50	0.09	20.0000		85.5	52 - 130	3.75	20	
1,1-Dichloroethene	15.4600	0.50	0.13	20.0000		77.3	61 - 136	2.69	20	
1,1-Dichloropropene	17.5500	0.50	0.13	20.0000		87.8	80 - 128	0.0570	20	
1,2,3-Trichloropropane	19.2600	0.50	0.39	20.0000		96.3	59 - 126	3.86	20	
1,2,3-Trichlorobenzene	18.6600	0.50	0.18	20.0000		93.3	69 - 138	3.71	20	
1,2,4-Trichlorobenzene	18.9700	0.50	0.16	20.0000		94.8	78 - 125	5.86	20	
1,2,4-Trimethylbenzene	21.9100	0.50	0.14	20.0000		110	70 - 126	3.44	20	
1,2-Dibromo-3-chloropropane	20.5400	0.50	0.41	20.0000		103	58 - 127	2.61	20	
1,2-Dibromoethane	19.5500	0.50	0.24	20.0000		97.8	76 - 120	15.2	20	
1,2-Dichlorobenzene	19.6400	0.50	0.20	20.0000		98.2	82 - 117	5.01	20	
1,2-Dichloroethane	17.8400	0.50	0.20	20.0000		89.2	66 - 126	8.11	20	
1,2-Dichloropropane	19.8200	0.50	0.15	20.0000		99.1	70 - 117	5.76	20	
1,3,5-Trimethylbenzene	21.3700	0.50	0.13	20.0000		107	71 - 125	4.60	20	
1,3-Dichlorobenzene	19.0900	0.50	0.16	20.0000		95.4	81 - 116	7.27	20	
1,3-Dichloropropane	19.7300	0.50	0.21	20.0000		98.6	69 - 124	6.87	20	
1,4-Dichlorobenzene	18.5500	0.50	0.17	20.0000		92.8	80 - 114	5.09	20	
2,2-Dichloropropane	20.6800	0.50	0.38	20.0000		103	58 - 132	7.11	20	
2-Chlorotoluene	20.3600	0.50	0.11	20.0000		102	71 - 119	6.07	20	
4-Chlorotoluene	21.1500	0.50	0.12	20.0000		106	72 - 122	1.48	20	
4-Isopropyltoluene	20.5300	0.50	0.11	20.0000		103	69 - 126	1.77	20	
Benzene	17.6700	0.50	0.13	20.0000		88.4	80 - 116	2.46	20	
Bromobenzene	18.3000	0.50	0.21	20.0000		91.5	77 - 118	2.38	20	
Bromodichloromethane	21.3600	0.50	0.14	20.0000		107	73 - 118	13.8	20	
Bromoform	18.6800	0.50	0.20	20.0000		93.4	65 - 133	5.22	20	
Bromomethane	18.3300	0.50	0.40	20.0000		91.6	7 - 205	22.9	20	R
Carbon tetrachloride	17.8400	0.50	0.09	20.0000		89.2	63 - 133	8.05	20	
Chlorobenzene	18.2500	0.50	0.13	20.0000		91.2	86 - 113	4.71	20	
Chloroethane	13.2400	0.50	0.15	20.0000		66.2	66 - 141	1.29	20	
Chloroform	19.5400	0.50	0.11	20.0000		97.7	63 - 127	9.04	20	
Chloromethane	14.3700	0.50	0.12	20.0000		71.8	0 - 207	4.56	20	
cis-1,2-Dichloroethene	17.8700	0.50	0.14	20.0000		89.4	64 - 126	8.76	20	
cis-1,3-Dichloropropene	21.4500	0.50	0.13	20.0000		107	70 - 141	12.4	20	
Dibromochloromethane	20.1100	0.50	0.16	20.0000		101	67 - 135	8.12	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0069 - MSVOA_LL_W (continued)										
LCS Dup (B0H0069-BSD1) - Continued					Prepared: 8/6/2020 Analyzed: 8/6/2020					
Dibromomethane	18.0900	0.50	0.19	20.0000		90.4	74 - 118	9.86	20	
Dichlorodifluoromethane	11.2400	0.50	0.18	20.0000		56.2	14 - 181	6.71	20	
Ethylbenzene	19.6100	0.50	0.13	20.0000		98.0	77 - 118	7.29	20	
Hexachlorobutadiene	18.8000	0.50	0.15	20.0000		94.0	66 - 125	0.160	20	
Isopropylbenzene	20.1100	0.50	0.10	20.0000		101	68 - 137	1.40	20	
m,p-Xylene	40.9000	1.0	0.19	40.0000		102	78 - 126	5.86	20	
Methylene chloride	19.2200	1.0	0.71	20.0000		96.1	51 - 149	5.23	20	
n-Butylbenzene	22.6000	0.50	0.11	20.0000		113	63 - 127	5.92	20	
n-Propylbenzene	21.1900	0.50	0.10	20.0000		106	69 - 124	2.48	20	
Naphthalene	16.9500	0.50	0.41	20.0000		84.8	60 - 126	10.2	20	
o-Xylene	20.6700	0.50	0.13	20.0000		103	79 - 126	7.48	20	
sec-Butylbenzene	21.6300	0.50	0.09	20.0000		108	69 - 124	4.93	20	
Styrene	24.3900	0.50	0.13	20.0000		122	80 - 127	9.58	20	
tert-Butylbenzene	19.8700	0.50	0.09	20.0000		99.4	71 - 124	4.79	20	
Tetrachloroethene	16.7400	0.50	0.10	20.0000		83.7	73 - 129	5.52	20	
Toluene	19.6100	0.50	0.12	20.0000		98.0	78 - 121	8.17	20	
trans-1,2-Dichloroethene	16.7500	0.50	0.09	20.0000		83.8	58 - 141	3.40	20	
Trichloroethene	16.1700	0.50	0.10	20.0000		80.8	73 - 126	5.53	20	
Trichlorofluoromethane	16.3700	0.50	0.23	20.0000		81.8	62 - 146	11.0	20	
Vinyl chloride	15.2700	0.50	0.13	20.0000		76.4	61 - 137	9.39	20	
Surrogate: 1,2-Dichloroethane-d4	*26.21*			*25.0000*		*105*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.26*			*25.0000*		*101*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.00*			*25.0000*		*104*	*66 - 147*			
Surrogate: Toluene-d8	*26.27*			*25.0000*		*105*	*77 - 138*			
Matrix Spike (B0H0069-MS1)			**Source: 2001851-06**		Prepared: 8/6/2020 Analyzed: 8/6/2020					
1,1,1,2-Tetrachloroethane	1095.50	25	5.7	1000.00	ND	110	71 - 133			
1,1,1-Trichloroethane	1235.50	25	11	1000.00	ND	124	62 - 124			
1,1,2,2-Tetrachloroethane	1223.50	25	18	1000.00	ND	122	50 - 131			
1,1,2-Trichloroethane	1108.50	25	13	1000.00	ND	111	77 - 121			
1,1-Dichloroethane	1001.50	25	4.6	1000.00	ND	100	52 - 130			
1,1-Dichloroethene	1651.50	25	6.6	1000.00	635.590	102	61 - 136			
1,1-Dichloropropene	1097.50	25	6.5	1000.00	ND	110	80 - 128			
1,2,3-Trichloropropane	1156.00	25	20	1000.00	ND	116	59 - 126			
1,2,3-Trichlorobenzene	1043.00	25	9.0	1000.00	ND	104	69 - 138			
1,2,4-Trichlorobenzene	976.500	25	7.8	1000.00	ND	97.6	78 - 125			
1,2,4-Trimethylbenzene	1294.00	25	7.1	1000.00	ND	129	70 - 126			M2
1,2-Dibromo-3-chloropropane	1189.00	25	21	1000.00	ND	119	58 - 127			
1,2-Dibromoethane	1095.00	25	12	1000.00	ND	110	76 - 120			
1,2-Dichlorobenzene	1109.50	25	9.9	1000.00	ND	111	82 - 117			
1,2-Dichloroethane	1075.50	25	9.8	1000.00	ND	108	66 - 126			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0069 - MSVOA_LL_W (continued)										
Matrix Spike (B0H0069-MS1) - Continued			**Source: 2001851-06**		Prepared: 8/6/2020 Analyzed: 8/6/2020					
1,2-Dichloropropane	1087.50	25	7.7	1000.00	ND	109	70 - 117			
1,3,5-Trimethylbenzene	1227.50	25	6.4	1000.00	ND	123	71 - 125			
1,3-Dichlorobenzene	1071.00	25	8.2	1000.00	ND	107	81 - 116			
1,3-Dichloropropane	1091.00	25	10	1000.00	ND	109	69 - 124			
1,4-Dichlorobenzene	1041.50	25	8.6	1000.00	ND	104	80 - 114			
2,2-Dichloropropane	903.000	25	19	1000.00	ND	90.3	58 - 132			
2-Chlorotoluene	1183.50	25	5.6	1000.00	ND	118	71 - 119			
4-Chlorotoluene	1213.50	25	6.1	1000.00	ND	121	72 - 122			
4-Isopropyltoluene	1203.50	25	5.4	1000.00	ND	120	69 - 126			
Benzene	1020.00	25	6.6	1000.00	ND	102	80 - 116			
Bromobenzene	1071.00	25	10	1000.00	ND	107	77 - 118			
Bromodichloromethane	1207.50	25	7.0	1000.00	ND	121	73 - 118			M2
Bromoform	1107.00	25	9.8	1000.00	ND	111	65 - 133			
Bromomethane	811.500	25	20	1000.00	ND	81.2	7 - 205			
Carbon tetrachloride	1245.50	25	4.6	1000.00	ND	125	63 - 133			
Chlorobenzene	1023.00	25	6.5	1000.00	ND	102	81 - 115			
Chloroethane	786.000	25	7.7	1000.00	ND	78.6	66 - 141			
Chloroform	1143.00	25	5.3	1000.00	ND	114	63 - 127			
Chloromethane	880.000	25	5.9	1000.00	ND	88.0	0 - 207			
cis-1,2-Dichloroethene	1052.50	25	7.2	1000.00	ND	105	64 - 126			
cis-1,3-Dichloropropene	1071.00	25	6.3	1000.00	ND	107	70 - 141			
Dibromochloromethane	1154.00	25	8.2	1000.00	ND	115	67 - 135			
Dibromomethane	1031.00	25	9.6	1000.00	ND	103	74 - 118			
Dichlorodifluoromethane	789.000	25	8.9	1000.00	ND	78.9	14 - 181			
Ethylbenzene	1127.50	25	6.7	1000.00	ND	113	77 - 118			
Hexachlorobutadiene	1070.00	25	7.7	1000.00	ND	107	66 - 125			
Isopropylbenzene	1177.00	25	5.2	1000.00	ND	118	68 - 137			
m,p-Xylene	2339.00	50	9.3	2000.00	ND	117	78 - 126			
Methylene chloride	1125.50	50	36	1000.00	ND	113	51 - 149			
n-Butylbenzene	1232.00	25	5.3	1000.00	ND	123	63 - 127			
n-Propylbenzene	1234.00	25	5.0	1000.00	ND	123	69 - 124			
Naphthalene	865.000	25	20	1000.00	ND	86.5	60 - 126			
o-Xylene	1211.50	25	6.3	1000.00	ND	121	79 - 126			
sec-Butylbenzene	1257.00	25	4.5	1000.00	ND	126	69 - 124			M2
Styrene	1334.00	25	6.4	1000.00	ND	133	80 - 127			M2
tert-Butylbenzene	1199.00	25	4.5	1000.00	ND	120	71 - 124			
Tetrachloroethene	998.500	25	5.0	1000.00	ND	99.8	73 - 129			
Toluene	1108.50	25	6.1	1000.00	ND	111	78 - 121			
trans-1,2-Dichloroethene	965.500	25	4.6	1000.00	ND	96.6	58 - 141			
Trichloroethene	1003.00	25	5.0	1000.00	ND	100	73 - 126			
Trichlorofluoromethane	1117.00	25	11	1000.00	ND	112	62 - 146			
Vinyl chloride	920.000	25	6.4	1000.00	ND	92.0	61 - 137			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0069 - MSVOA_LL_W (continued)									
Matrix Spike (B0H0069-MS1) - Continued			**Source: 2001851-06**		Prepared: 8/6/2020 Analyzed: 8/6/2020				
Surrogate: 1,2-Dichloroethane-d4	*29.26*		*25.0000*		*117*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*26.66*		*25.0000*		*107*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.86*		*25.0000*		*107*	*66 - 147*			
Surrogate: Toluene-d8	*26.90*		*25.0000*		*108*	*77 - 138*			
Matrix Spike Dup (B0H0069-MSD1)			**Source: 2001851-06**		Prepared: 8/6/2020 Analyzed: 8/6/2020				
1,1,1,2-Tetrachloroethane	1127.50	25	5.7	1000.00	ND	113	71 - 133	2.88	20
1,1,1-Trichloroethane	1222.00	25	11	1000.00	ND	122	62 - 124	1.10	20
1,1,2,2-Tetrachloroethane	1249.00	25	18	1000.00	ND	125	50 - 131	2.06	20
1,1,2-Trichloroethane	1024.00	25	13	1000.00	ND	102	77 - 121	7.92	20
1,1-Dichloroethane	987.000	25	4.6	1000.00	ND	98.7	52 - 130	1.46	20
1,1-Dichloroethene	1606.00	25	6.6	1000.00	635.590	97.0	61 - 136	2.79	20
1,1-Dichloropropene	1083.00	25	6.5	1000.00	ND	108	80 - 128	1.33	20
1,2,3-Trichloropropane	1122.00	25	20	1000.00	ND	112	59 - 126	2.99	20
1,2,3-Trichlorobenzene	1057.00	25	9.0	1000.00	ND	106	69 - 138	1.33	20
1,2,4-Trichlorobenzene	1026.50	25	7.8	1000.00	ND	103	78 - 125	4.99	20
1,2,4-Trimethylbenzene	1247.50	25	7.1	1000.00	ND	125	70 - 126	3.66	20
1,2-Dibromo-3-chloropropane	1142.50	25	21	1000.00	ND	114	58 - 127	3.99	20
1,2-Dibromoethane	1030.00	25	12	1000.00	ND	103	76 - 120	6.12	20
1,2-Dichlorobenzene	1097.00	25	9.9	1000.00	ND	110	82 - 117	1.13	20
1,2-Dichloroethane	1050.00	25	9.8	1000.00	ND	105	66 - 126	2.40	20
1,2-Dichloropropane	1060.50	25	7.7	1000.00	ND	106	70 - 117	2.51	20
1,3,5-Trimethylbenzene	1230.00	25	6.4	1000.00	ND	123	71 - 125	0.203	20
1,3-Dichlorobenzene	1060.50	25	8.2	1000.00	ND	106	81 - 116	0.985	20
1,3-Dichloropropane	1101.00	25	10	1000.00	ND	110	69 - 124	0.912	20
1,4-Dichlorobenzene	1025.00	25	8.6	1000.00	ND	102	80 - 114	1.60	20
2,2-Dichloropropane	890.000	25	19	1000.00	ND	89.0	58 - 132	1.45	20
2-Chlorotoluene	1138.50	25	5.6	1000.00	ND	114	71 - 119	3.88	20
4-Chlorotoluene	1203.50	25	6.1	1000.00	ND	120	72 - 122	0.827	20
4-Isopropyltoluene	1208.50	25	5.4	1000.00	ND	121	69 - 126	0.415	20
Benzene	984.000	25	6.6	1000.00	ND	98.4	80 - 116	3.59	20
Bromobenzene	1077.50	25	10	1000.00	ND	108	77 - 118	0.605	20
Bromodichloromethane	1148.00	25	7.0	1000.00	ND	115	73 - 118	5.05	20
Bromoform	1140.50	25	9.8	1000.00	ND	114	65 - 133	2.98	20
Bromomethane	875.000	25	20	1000.00	ND	87.5	7 - 205	7.53	20
Carbon tetrachloride	1180.00	25	4.6	1000.00	ND	118	63 - 133	5.40	20
Chlorobenzene	1071.50	25	6.5	1000.00	ND	107	81 - 115	4.63	20
Chloroethane	790.000	25	7.7	1000.00	ND	79.0	66 - 141	0.508	20
Chloroform	1112.00	25	5.3	1000.00	ND	111	63 - 127	2.75	20
Chloromethane	909.500	25	5.9	1000.00	ND	91.0	0 - 207	3.30	20
cis-1,2-Dichloroethene	1016.00	25	7.2	1000.00	ND	102	64 - 126	3.53	20

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0069 - MSVOA_LL_W (continued)										
Matrix Spike Dup (B0H0069-MSD1) - Continued			**Source: 2001851-06**		Prepared: 8/6/2020 Analyzed: 8/6/2020					
cis-1,3-Dichloropropene	1054.00	25	6.3	1000.00	ND	105	70 - 141	1.60	20	
Dibromochloromethane	1196.00	25	8.2	1000.00	ND	120	67 - 135	3.57	20	
Dibromomethane	1031.50	25	9.6	1000.00	ND	103	74 - 118	0.0485	20	
Dichlorodifluoromethane	760.000	25	8.9	1000.00	ND	76.0	14 - 181	3.74	20	
Ethylbenzene	1137.50	25	6.7	1000.00	ND	114	77 - 118	0.883	20	
Hexachlorobutadiene	1067.50	25	7.7	1000.00	ND	107	66 - 125	0.234	20	
Isopropylbenzene	1185.00	25	5.2	1000.00	ND	118	68 - 137	0.677	20	
m,p-Xylene	2371.50	50	9.3	2000.00	ND	119	78 - 126	1.38	20	
Methylene chloride	1027.00	50	36	1000.00	ND	103	51 - 149	9.15	20	
n-Butylbenzene	1254.50	25	5.3	1000.00	ND	125	63 - 127	1.81	20	
n-Propylbenzene	1209.00	25	5.0	1000.00	ND	121	69 - 124	2.05	20	
Naphthalene	946.000	25	20	1000.00	ND	94.6	60 - 126	8.95	20	
o-Xylene	1168.00	25	6.3	1000.00	ND	117	79 - 126	3.66	20	
sec-Butylbenzene	1252.00	25	4.5	1000.00	ND	125	69 - 124	0.399	20	M2
Styrene	1334.50	25	6.4	1000.00	ND	133	80 - 127	0.0375	20	M2
tert-Butylbenzene	1177.00	25	4.5	1000.00	ND	118	71 - 124	1.85	20	
Tetrachloroethene	1006.50	25	5.0	1000.00	ND	101	73 - 129	0.798	20	
Toluene	1074.00	25	6.1	1000.00	ND	107	78 - 121	3.16	20	
trans-1,2-Dichloroethene	987.500	25	4.6	1000.00	ND	98.8	58 - 141	2.25	20	
Trichloroethene	973.000	25	5.0	1000.00	ND	97.3	73 - 126	3.04	20	
Trichlorofluoromethane	1130.00	25	11	1000.00	ND	113	62 - 146	1.16	20	
Vinyl chloride	901.000	25	6.4	1000.00	ND	90.1	61 - 137	2.09	20	
Surrogate: 1,2-Dichloroethane-d4	*27.75*			*25.0000*		*111*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.72*			*25.0000*		*103*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.78*			*25.0000*		*103*	*66 - 147*			
Surrogate: Toluene-d8	*25.87*			*25.0000*		*103*	*77 - 138*			

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1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0167 - MSSEMI_W										
Blank (B0H0167-BLK1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	ND	2.0	0.84							
Surrogate: 1,2-Dichlorobenzene-d	*58.32*			*100.000*		*58.3*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*71.21*			*100.000*		*71.2*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*77.20*			*100.000*		*77.2*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*71.29*			*100.000*		*71.3*	*13 - 150*			
LCS (B0H0167-BS1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	88.9000	2.0	0.84	100.000		88.9	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*66.44*			*100.000*		*66.4*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*78.65*			*100.000*		*78.6*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*86.70*			*100.000*		*86.7*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*79.93*			*100.000*		*79.9*	*13 - 150*			
LCS Dup (B0H0167-BSD1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	83.5000	2.0	0.84	100.000		83.5	75 - 155	6.26	20	
Surrogate: 1,2-Dichlorobenzene-d	*72.21*			*100.000*		*72.2*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*82.42*			*100.000*		*82.4*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*93.13*			*100.000*		*93.1*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*83.32*			*100.000*		*83.3*	*13 - 150*			

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1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0144 - MSSEMI_W										
Blank (B0H0144-BLK1)						Prepared: 8/10/2020 Analyzed: 8/11/2020				
1,4-Dioxane	ND	0.20	0.05							
Surrogate: 1,2-Dichlorobenzene-d	*0.7942*			*1.00000*		*79.4*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*1.087*			*1.00000*		*109*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.9164*			*1.00000*		*91.6*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.7017*			*1.00000*		*70.2*	*15 - 121*			
LCS (B0H0144-BS1)						Prepared: 8/10/2020 Analyzed: 8/11/2020				
1,4-Dioxane	1.11331	0.20	0.05	1.00000		111	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*0.5410*			*1.00000*		*54.1*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.7649*			*1.00000*		*76.5*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.6392*			*1.00000*		*63.9*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.4838*			*1.00000*		*48.4*	*15 - 121*			
LCS Dup (B0H0144-BSD1)						Prepared: 8/10/2020 Analyzed: 8/11/2020				
1,4-Dioxane	1.18717	0.20	0.05	1.00000		119	75 - 155	6.42	20	
Surrogate: 1,2-Dichlorobenzene-d	*0.5496*			*1.00000*		*55.0*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.7853*			*1.00000*		*78.5*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.6555*			*1.00000*		*65.5*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.4963*			*1.00000*		*49.6*	*15 - 121*			

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Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 8/5/20
Page 1 of 2

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: A. DONNELLY, R. ADAMS

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	MATRIX: Groundwater	MATRIX: Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	PRESERVATION: NaOH/AlCl3	PRESERVATION: NaOH/Zn	PRESERVATION: Ice	CONTAINERS: 40-ml VOA	CONTAINERS: 1 L Amber	CONTAINERS: 250-ml poly	CONTAINERS: 250-ml Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	ANALYSIS REQUESTED: 1,4 Dioxane 8270 SIM	ANALYSIS REQUESTED: 1,4-Dioxane 8270 MOD	ANALYSIS REQUESTED: CO2 by SM4500	ANALYSIS REQUESTED: Dissolved Sulfide by SM4500 S2-d	ANALYSIS REQUESTED: Total Sulfide by SM-4500 S2-d	Expected Concetration Range (ppb) for VOA's: 0 - 10	10- 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2004610	TB-080520A	8/5/20	0830		X				X	2				X						X						X			Report J Flags
02	MW-40		0910	X					X	3				X						X						X			
	↓		↓	X					X		1				X											X			
03	MW-15		1011						X	3				X						X						X			
04	MW-08		1054	X		X			X	3				X							X					X			
	↓		↓	X					X		1				X											X			
05	RB-080520		1225		X	X			X	3				X						X						X			
	↓		↓		X				X		1				X											X			
06	MW-16		1320	X		X			X	9				X									X			X	X		
	↓		↓	X					X		3					X										X	X		
07	MW-32B		1429	X		X			X	3				X							X					X			
	↓		↓	X					X		1				X											X			
08	MW-32DDB		1435	X		X			X	3				X							X					X			
	↓		↓	X					X		1				X											X			

Total number of containers per analysis:

Total No. of Containers:

Relinquished By: / Company	Date / Time	Received By: / Company	Date / Time
R Donnelly / H+A	8/5/20 1740	ATL	08/5/20 1746
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
			8/6/20 1848

- ☐ No. of containers correct
- ☐ Received in good condition
- ☐ Custody seals secure
- ☐ Conforms to COC document

3.4 Temperature on receipt

Laboratory
ATL
Attn: Tina Nguyen
3257 Walnut Ave
Signal Hill, CA 90755
562-989-4045

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 08/05/2020
Page 2 of 2

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: A. Sanzon, D. Seaver

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	MATRIX: Groundwater	MATRIX: Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	PRESERVATION: NaOH/AlCl3	PRESERVATION: NaOH/Zn	PRESERVATION: Ice	CONTAINERS: 40-ml VOA	CONTAINERS: 1 L Amber	CONTAINERS: 250-ml poly	CONTAINERS: 250-ml Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	ANALYSIS REQUESTED: 1,4 Dioxane 8270 SIM	ANALYSIS REQUESTED: 1,4-Dioxane 8270 MOD	ANALYSIS REQUESTED: CO2 by SM4500	ANALYSIS REQUESTED: Dissolved Sulfide by SM4500 S2-d	ANALYSIS REQUESTED: Total Sulfide by SM-4500 S2-d	Expected Concetration Range (ppb) for VOA's: 0 - 10	10 - 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2008386-09	MW-43	08/05/2020	0909	X		X			X	3				X							X					X			Report J Flags
10	MW-35C		1042	X		X			X	3				X							X					X			
11	MW-42		1331	X		X			X	3				X								X				X			
12	MW-4200		1431	X		X			X	3				X								X				X			
13	MW-36		1544	X		X			X	3				X								X				X			
				X					X		1				X											X			

Total number of containers per analysis: 12

Total No. of Containers:

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
ADanley / H+A	8/5/20 1740	ATL	08/5/20 17:40
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
			8/5/2020 1818

- [ ] No. of containers correct
- [ ] Received in good condition
- [ ] Custody seals secure
- [ ] Conforms to COC document

3.4 Temperature on receipt

Laboratory

ATL
Attn: Tina Nguyen
3257 Walnut Ave
Signal Hill, CA 90755
562-989-4045

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 570-35063-1
Client Project/Site: Raytheon Main / 532.30

For:
Hargis + Associates, Inc.
La Jolla Gateway
9171 Towne Centre Drive
Suite 375
San Diego, California 92122

Attn: Steve Netto

Virendra R Patel

Authorized for release by:
8/13/2020 1:19:01 PM

Virendra Patel, Project Manager I
(714)895-5494
Virendra.Patel@eurofinset.com

LINKS

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Definitions/Glossary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-35063-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-35063-1

Comments
No additional comments.

Receipt
The samples were received on 8/5/2020 5:20 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-86063.

Method 8260B: The lot test of the laboratory trip blank water associated with 570-35063-A-1 indicated a detection above the method detection limit (MDL) for the following analyte(s): Methylene Chloride. This is a client supplied trip blank.

Method 8260B: The continuing calibration verification (CCV) associated with batch 570-86296 recovered above the upper control limit for Vinyl acetate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 570-86296 recovered outside control limits for the following analytes: Vinyl acetate. This analyte was biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 570-86296 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-86953.

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

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

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

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

Detection Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Client Sample ID: TB-080520B — Lab Sample ID: 570-35063-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.24	J	1.0	0.043	ug/L	1		8260B	Total/NA

Client Sample ID: MW-42 — Lab Sample ID: 570-35063-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.41	J	0.50	0.060	ug/L	1		8260B	Total/NA
1,1-Dichloroethene	28		0.50	0.10	ug/L	1		8260B	Total/NA
1,4-Dioxane	1.3		0.50	0.18	ug/L	1		8270C SIM ID	Total/NA

Client Sample ID: MW-32B — Lab Sample ID: 570-35063-3

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.40	J	0.50	0.060	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.4		0.50	0.11	ug/L	1		8260B	Total/NA
Trichloroethene	12		0.50	0.10	ug/L	1		8260B	Total/NA
1,1-Dichloroethene - DL	41		2.0	0.41	ug/L	4		8260B	Total/NA
1,4-Dioxane	1.7		0.50	0.18	ug/L	1		8270C SIM ID	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: TB-080520B
Date Collected: 08/05/20 08:15
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/20 14:35	1
1,1,1-Trichloroethane	ND		0.50	0.084	ug/L			08/06/20 14:35	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.087	ug/L			08/06/20 14:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.13	ug/L			08/06/20 14:35	1
1,1,2-Trichloroethane	ND		0.50	0.069	ug/L			08/06/20 14:35	1
1,1-Dichloroethane	ND		0.50	0.060	ug/L			08/06/20 14:35	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/06/20 14:35	1
1,1-Dichloropropene	ND		0.50	0.070	ug/L			08/06/20 14:35	1
1,2,3-Trichlorobenzene	ND		0.50	0.12	ug/L			08/06/20 14:35	1
1,2,3-Trichloropropane	ND		1.0	0.076	ug/L			08/06/20 14:35	1
1,2,4-Trichlorobenzene	ND		0.50	0.089	ug/L			08/06/20 14:35	1
1,2,4-Trimethylbenzene	ND		0.50	0.068	ug/L			08/06/20 14:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.51	ug/L			08/06/20 14:35	1
1,2-Dibromoethane	ND		0.50	0.059	ug/L			08/06/20 14:35	1
1,2-Dichlorobenzene	ND		0.50	0.082	ug/L			08/06/20 14:35	1
1,2-Dichloroethane	ND		0.50	0.075	ug/L			08/06/20 14:35	1
1,2-Dichloropropane	ND		0.50	0.099	ug/L			08/06/20 14:35	1
1,3,5-Trimethylbenzene	ND		0.50	0.079	ug/L			08/06/20 14:35	1
1,3-Dichlorobenzene	ND		0.50	0.098	ug/L			08/06/20 14:35	1
1,3-Dichloropropane	ND		1.0	0.082	ug/L			08/06/20 14:35	1
1,4-Dichlorobenzene	ND		0.50	0.073	ug/L			08/06/20 14:35	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			08/06/20 14:35	1
2-Butanone	ND		5.0	0.46	ug/L			08/06/20 14:35	1
2-Chlorotoluene	ND		0.50	0.058	ug/L			08/06/20 14:35	1
2-Hexanone	ND		10	0.50	ug/L			08/06/20 14:35	1
4-Chlorotoluene	ND		0.50	0.091	ug/L			08/06/20 14:35	1
4-Methyl-2-pentanone	ND		5.0	0.42	ug/L			08/06/20 14:35	1
Acetone	ND		10	4.0	ug/L			08/06/20 14:35	1
Benzene	ND		0.50	0.072	ug/L			08/06/20 14:35	1
Bromobenzene	ND		0.50	0.061	ug/L			08/06/20 14:35	1
Bromochloromethane	ND		1.0	0.082	ug/L			08/06/20 14:35	1
Bromodichloromethane	ND		0.50	0.053	ug/L			08/06/20 14:35	1
Bromoform	ND		0.50	0.096	ug/L			08/06/20 14:35	1
Bromomethane	ND		2.0	0.99	ug/L			08/06/20 14:35	1
cis-1,2-Dichloroethene	ND		0.50	0.11	ug/L			08/06/20 14:35	1
cis-1,3-Dichloropropene	ND		0.50	0.096	ug/L			08/06/20 14:35	1
Carbon disulfide	ND		10	0.39	ug/L			08/06/20 14:35	1
Carbon tetrachloride	ND		0.50	0.057	ug/L			08/06/20 14:35	1
Chlorobenzene	ND		0.50	0.088	ug/L			08/06/20 14:35	1
Chloroethane	ND		0.50	0.12	ug/L			08/06/20 14:35	1
Chloroform	ND		0.50	0.062	ug/L			08/06/20 14:35	1
Chloromethane	ND		5.0	2.0	ug/L			08/06/20 14:35	1
Dibromochloromethane	ND		0.50	0.064	ug/L			08/06/20 14:35	1
Dibromomethane	ND		0.50	0.13	ug/L			08/06/20 14:35	1
Dichlorodifluoromethane	ND		1.0	0.099	ug/L			08/06/20 14:35	1
Ethylbenzene	ND		0.50	0.087	ug/L			08/06/20 14:35	1
Isopropylbenzene	ND		0.50	0.077	ug/L			08/06/20 14:35	1
Methylene Chloride	**0.24**	**J**	1.0	0.043	ug/L			08/06/20 14:35	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.067	ug/L			08/06/20 14:35	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TB-080520B
Date Collected: 08/05/20 08:15
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.097	ug/L			08/06/20 14:35	1
n-Butylbenzene	ND		0.50	0.11	ug/L			08/06/20 14:35	1
N-Propylbenzene	ND		0.50	0.076	ug/L			08/06/20 14:35	1
o-Xylene	ND		0.50	0.086	ug/L			08/06/20 14:35	1
m,p-Xylene	ND		1.0	0.15	ug/L			08/06/20 14:35	1
p-Isopropyltoluene	ND		0.50	0.074	ug/L			08/06/20 14:35	1
sec-Butylbenzene	ND		0.50	0.095	ug/L			08/06/20 14:35	1
Styrene	ND		0.50	0.059	ug/L			08/06/20 14:35	1
trans-1,2-Dichloroethene	ND		0.50	0.082	ug/L			08/06/20 14:35	1
trans-1,3-Dichloropropene	ND		0.50	0.053	ug/L			08/06/20 14:35	1
tert-Butylbenzene	ND		0.50	0.082	ug/L			08/06/20 14:35	1
Tetrachloroethene	ND		0.50	0.24	ug/L			08/06/20 14:35	1
Toluene	ND		0.50	0.093	ug/L			08/06/20 14:35	1
Trichloroethene	ND		0.50	0.10	ug/L			08/06/20 14:35	1
Trichlorofluoromethane	ND		0.50	0.10	ug/L			08/06/20 14:35	1
Vinyl acetate	ND		5.0	0.70	ug/L			08/06/20 14:35	1
Vinyl chloride	ND		0.50	0.078	ug/L			08/06/20 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 128*		*08/06/20 14:35*	*1*
4-Bromofluorobenzene (Surr)	*94*		*68 - 120*		*08/06/20 14:35*	*1*
Dibromofluoromethane	*96*		*80 - 127*		*08/06/20 14:35*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/06/20 14:35*	*1*

Client Sample ID: MW-42
Date Collected: 08/05/20 14:31
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-2
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/20 18:54	1
1,1,1-Trichloroethane	ND		0.50	0.084	ug/L			08/06/20 18:54	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.087	ug/L			08/06/20 18:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.13	ug/L			08/06/20 18:54	1
1,1,2-Trichloroethane	ND		0.50	0.069	ug/L			08/06/20 18:54	1
1,1-Dichloroethane	**0.41**	**J**	0.50	0.060	ug/L			08/06/20 18:54	1
1,1-Dichloroethene	**28**		0.50	0.10	ug/L			08/06/20 18:54	1
1,1-Dichloropropene	ND		0.50	0.070	ug/L			08/06/20 18:54	1
1,2,3-Trichlorobenzene	ND		0.50	0.12	ug/L			08/06/20 18:54	1
1,2,3-Trichloropropane	ND		1.0	0.076	ug/L			08/06/20 18:54	1
1,2,4-Trichlorobenzene	ND		0.50	0.089	ug/L			08/06/20 18:54	1
1,2,4-Trimethylbenzene	ND		0.50	0.068	ug/L			08/06/20 18:54	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.51	ug/L			08/06/20 18:54	1
1,2-Dibromoethane	ND		0.50	0.059	ug/L			08/06/20 18:54	1
1,2-Dichlorobenzene	ND		0.50	0.082	ug/L			08/06/20 18:54	1
1,2-Dichloroethane	ND		0.50	0.075	ug/L			08/06/20 18:54	1
1,2-Dichloropropane	ND		0.50	0.099	ug/L			08/06/20 18:54	1
1,3,5-Trimethylbenzene	ND		0.50	0.079	ug/L			08/06/20 18:54	1
1,3-Dichlorobenzene	ND		0.50	0.098	ug/L			08/06/20 18:54	1
1,3-Dichloropropane	ND		1.0	0.082	ug/L			08/06/20 18:54	1
1,4-Dichlorobenzene	ND		0.50	0.073	ug/L			08/06/20 18:54	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			08/06/20 18:54	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: MW-42
Date Collected: 08/05/20 14:31
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-2
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	ND		5.0	0.46	ug/L			08/06/20 18:54	1
2-Chlorotoluene	ND		0.50	0.058	ug/L			08/06/20 18:54	1
2-Hexanone	ND		10	0.50	ug/L			08/06/20 18:54	1
4-Chlorotoluene	ND		0.50	0.091	ug/L			08/06/20 18:54	1
4-Methyl-2-pentanone	ND		5.0	0.42	ug/L			08/06/20 18:54	1
Acetone	ND		10	4.0	ug/L			08/06/20 18:54	1
Benzene	ND		0.50	0.072	ug/L			08/06/20 18:54	1
Bromobenzene	ND		0.50	0.061	ug/L			08/06/20 18:54	1
Bromochloromethane	ND		1.0	0.082	ug/L			08/06/20 18:54	1
Bromodichloromethane	ND		0.50	0.053	ug/L			08/06/20 18:54	1
Bromoform	ND		0.50	0.096	ug/L			08/06/20 18:54	1
Bromomethane	ND		2.0	0.99	ug/L			08/06/20 18:54	1
cis-1,2-Dichloroethene	ND		0.50	0.11	ug/L			08/06/20 18:54	1
cis-1,3-Dichloropropene	ND		0.50	0.096	ug/L			08/06/20 18:54	1
Carbon disulfide	ND		10	0.39	ug/L			08/06/20 18:54	1
Carbon tetrachloride	ND		0.50	0.057	ug/L			08/06/20 18:54	1
Chlorobenzene	ND		0.50	0.088	ug/L			08/06/20 18:54	1
Chloroethane	ND		0.50	0.12	ug/L			08/06/20 18:54	1
Chloroform	ND		0.50	0.062	ug/L			08/06/20 18:54	1
Chloromethane	ND		5.0	2.0	ug/L			08/06/20 18:54	1
Dibromochloromethane	ND		0.50	0.064	ug/L			08/06/20 18:54	1
Dibromomethane	ND		0.50	0.13	ug/L			08/06/20 18:54	1
Dichlorodifluoromethane	ND		1.0	0.099	ug/L			08/06/20 18:54	1
Ethylbenzene	ND		0.50	0.087	ug/L			08/06/20 18:54	1
Isopropylbenzene	ND		0.50	0.077	ug/L			08/06/20 18:54	1
Methylene Chloride	ND		1.0	0.043	ug/L			08/06/20 18:54	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.067	ug/L			08/06/20 18:54	1
Naphthalene	ND		1.0	0.097	ug/L			08/06/20 18:54	1
n-Butylbenzene	ND		0.50	0.11	ug/L			08/06/20 18:54	1
N-Propylbenzene	ND		0.50	0.076	ug/L			08/06/20 18:54	1
o-Xylene	ND		0.50	0.086	ug/L			08/06/20 18:54	1
m,p-Xylene	ND		1.0	0.15	ug/L			08/06/20 18:54	1
p-Isopropyltoluene	ND		0.50	0.074	ug/L			08/06/20 18:54	1
sec-Butylbenzene	ND		0.50	0.095	ug/L			08/06/20 18:54	1
Styrene	ND		0.50	0.059	ug/L			08/06/20 18:54	1
trans-1,2-Dichloroethene	ND		0.50	0.082	ug/L			08/06/20 18:54	1
trans-1,3-Dichloropropene	ND		0.50	0.053	ug/L			08/06/20 18:54	1
tert-Butylbenzene	ND		0.50	0.082	ug/L			08/06/20 18:54	1
Tetrachloroethene	ND		0.50	0.24	ug/L			08/06/20 18:54	1
Toluene	ND		0.50	0.093	ug/L			08/06/20 18:54	1
Trichloroethene	ND		0.50	0.10	ug/L			08/06/20 18:54	1
Trichlorofluoromethane	ND		0.50	0.10	ug/L			08/06/20 18:54	1
Vinyl acetate	ND		5.0	0.70	ug/L			08/06/20 18:54	1
Vinyl chloride	ND		0.50	0.078	ug/L			08/06/20 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*80 - 128*		*08/06/20 18:54*	*1*
4-Bromofluorobenzene (Surr)	*92*		*68 - 120*		*08/06/20 18:54*	*1*
Dibromofluoromethane	*98*		*80 - 127*		*08/06/20 18:54*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/06/20 18:54*	*1*

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW-32B
Date Collected: 08/05/20 14:40
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-3
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/20 18:32	1
1,1,1-Trichloroethane	ND		0.50	0.084	ug/L			08/07/20 18:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.087	ug/L			08/07/20 18:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.13	ug/L			08/07/20 18:32	1
1,1,2-Trichloroethane	ND		0.50	0.069	ug/L			08/07/20 18:32	1
1,1-Dichloroethane	**0.40**	**J**	0.50	0.060	ug/L			08/07/20 18:32	1
1,1-Dichloropropene	ND		0.50	0.070	ug/L			08/07/20 18:32	1
1,2,3-Trichlorobenzene	ND		0.50	0.12	ug/L			08/07/20 18:32	1
1,2,3-Trichloropropane	ND		1.0	0.076	ug/L			08/07/20 18:32	1
1,2,4-Trichlorobenzene	ND		0.50	0.089	ug/L			08/07/20 18:32	1
1,2,4-Trimethylbenzene	ND		0.50	0.068	ug/L			08/07/20 18:32	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.51	ug/L			08/07/20 18:32	1
1,2-Dibromoethane	ND		0.50	0.059	ug/L			08/07/20 18:32	1
1,2-Dichlorobenzene	ND		0.50	0.082	ug/L			08/07/20 18:32	1
1,2-Dichloroethane	ND		0.50	0.075	ug/L			08/07/20 18:32	1
1,2-Dichloropropane	ND		0.50	0.099	ug/L			08/07/20 18:32	1
1,3,5-Trimethylbenzene	ND		0.50	0.079	ug/L			08/07/20 18:32	1
1,3-Dichlorobenzene	ND		0.50	0.098	ug/L			08/07/20 18:32	1
1,3-Dichloropropane	ND		1.0	0.082	ug/L			08/07/20 18:32	1
1,4-Dichlorobenzene	ND		0.50	0.073	ug/L			08/07/20 18:32	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			08/07/20 18:32	1
2-Butanone	ND		5.0	0.46	ug/L			08/07/20 18:32	1
2-Chlorotoluene	ND		0.50	0.058	ug/L			08/07/20 18:32	1
2-Hexanone	ND		10	0.50	ug/L			08/07/20 18:32	1
4-Chlorotoluene	ND		0.50	0.091	ug/L			08/07/20 18:32	1
4-Methyl-2-pentanone	ND		5.0	0.42	ug/L			08/07/20 18:32	1
Acetone	ND		10	4.0	ug/L			08/07/20 18:32	1
Benzene	ND		0.50	0.072	ug/L			08/07/20 18:32	1
Bromobenzene	ND		0.50	0.061	ug/L			08/07/20 18:32	1
Bromochloromethane	ND		1.0	0.082	ug/L			08/07/20 18:32	1
Bromodichloromethane	ND		0.50	0.053	ug/L			08/07/20 18:32	1
Bromoform	ND		0.50	0.096	ug/L			08/07/20 18:32	1
Bromomethane	ND		2.0	0.99	ug/L			08/07/20 18:32	1
cis-1,2-Dichloroethene	**1.4**		0.50	0.11	ug/L			08/07/20 18:32	1
cis-1,3-Dichloropropene	ND		0.50	0.096	ug/L			08/07/20 18:32	1
Carbon disulfide	ND		10	0.39	ug/L			08/07/20 18:32	1
Carbon tetrachloride	ND		0.50	0.057	ug/L			08/07/20 18:32	1
Chlorobenzene	ND		0.50	0.088	ug/L			08/07/20 18:32	1
Chloroethane	ND		0.50	0.12	ug/L			08/07/20 18:32	1
Chloroform	ND		0.50	0.062	ug/L			08/07/20 18:32	1
Chloromethane	ND		5.0	2.0	ug/L			08/07/20 18:32	1
Dibromochloromethane	ND		0.50	0.064	ug/L			08/07/20 18:32	1
Dibromomethane	ND		0.50	0.13	ug/L			08/07/20 18:32	1
Dichlorodifluoromethane	ND		1.0	0.099	ug/L			08/07/20 18:32	1
Ethylbenzene	ND		0.50	0.087	ug/L			08/07/20 18:32	1
Isopropylbenzene	ND		0.50	0.077	ug/L			08/07/20 18:32	1
Methylene Chloride	ND		1.0	0.043	ug/L			08/07/20 18:32	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.067	ug/L			08/07/20 18:32	1
Naphthalene	ND		1.0	0.097	ug/L			08/07/20 18:32	1

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: MW-32B
Date Collected: 08/05/20 14:40
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-3
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		0.50	0.11	ug/L			08/07/20 18:32	1
N-Propylbenzene	ND		0.50	0.076	ug/L			08/07/20 18:32	1
o-Xylene	ND		0.50	0.086	ug/L			08/07/20 18:32	1
m,p-Xylene	ND		1.0	0.15	ug/L			08/07/20 18:32	1
p-Isopropyltoluene	ND		0.50	0.074	ug/L			08/07/20 18:32	1
sec-Butylbenzene	ND		0.50	0.095	ug/L			08/07/20 18:32	1
Styrene	ND		0.50	0.059	ug/L			08/07/20 18:32	1
trans-1,2-Dichloroethene	ND		0.50	0.082	ug/L			08/07/20 18:32	1
trans-1,3-Dichloropropene	ND		0.50	0.053	ug/L			08/07/20 18:32	1
tert-Butylbenzene	ND		0.50	0.082	ug/L			08/07/20 18:32	1
Tetrachloroethene	ND		0.50	0.24	ug/L			08/07/20 18:32	1
Toluene	ND		0.50	0.093	ug/L			08/07/20 18:32	1
Trichloroethene	**12**		0.50	0.10	ug/L			08/07/20 18:32	1
Trichlorofluoromethane	ND		0.50	0.10	ug/L			08/07/20 18:32	1
Vinyl acetate	ND	*	5.0	0.70	ug/L			08/07/20 18:32	1
Vinyl chloride	ND		0.50	0.078	ug/L			08/07/20 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 128*		*08/07/20 18:32*	*1*
4-Bromofluorobenzene (Surr)	*96*		*68 - 120*		*08/07/20 18:32*	*1*
Dibromofluoromethane	*102*		*80 - 127*		*08/07/20 18:32*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*08/07/20 18:32*	*1*

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Client Sample ID: MW-32B
Date Collected: 08/05/20 14:40
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-3
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	41		2.0	0.41	ug/L			08/11/20 14:12	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 128*		*08/11/20 14:12*	*4*
4-Bromofluorobenzene (Surr)	*96*		*68 - 120*		*08/11/20 14:12*	*4*
Dibromofluoromethane	*95*		*80 - 127*		*08/11/20 14:12*	*4*
Toluene-d8 (Surr)	*103*		*80 - 120*		*08/11/20 14:12*	*4*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Client Sample ID: MW-42
Date Collected: 08/05/20 14:31
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-2
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.3		0.50	0.18	ug/L		08/07/20 07:38	08/10/20 22:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*43*		*15 - 150*	*08/07/20 07:38*	*08/10/20 22:14*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*96*		*46 - 128*	*08/07/20 07:38*	*08/10/20 22:14*	*1*

Client Sample ID: MW-32B
Date Collected: 08/05/20 14:40
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-3
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.7		0.50	0.18	ug/L		08/07/20 07:38	08/10/20 17:54	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*43*		*15 - 150*	*08/07/20 07:38*	*08/10/20 17:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*104*		*46 - 128*	*08/07/20 07:38*	*08/10/20 17:54*	*1*

Surrogate Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-128)	(68-120)	(80-127)	(80-120)
570-35063-1	TB-080520B	101	94	96	99
570-35063-2	MW-42	109	92	98	100
570-35063-3	MW-32B	102	96	102	98
570-35063-3 - DL	MW-32B	99	96	95	103
LCS 570-86063/3	Lab Control Sample	98	102	97	99
LCS 570-86296/3	Lab Control Sample	98	101	92	98
LCS 570-86953/3	Lab Control Sample	98	104	96	104
LCSD 570-86063/4	Lab Control Sample Dup	99	101	97	99
LCSD 570-86296/4	Lab Control Sample Dup	97	101	93	103
LCSD 570-86953/4	Lab Control Sample Dup	98	105	95	103
MB 570-86063/6	Method Blank	100	97	92	97
MB 570-86296/6	Method Blank	102	93	99	100
MB 570-86953/6	Method Blank	98	97	90	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(46-128)
570-35063-2	MW-42	96
570-35063-3	MW-32B	104
LCS 570-86295/2-A	Lab Control Sample	92
LCSD 570-86295/3-A	Lab Control Sample Dup	112
MB 570-86295/1-A	Method Blank	97

Surrogate Legend

NBZ = Nitrobenzene-d5

Isotope Dilution Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DXE (15-150)							
570-35063-2	MW-42	43							
570-35063-3	MW-32B	43							
LCS 570-86295/2-A	Lab Control Sample	42							
LCSD 570-86295/3-A	Lab Control Sample Dup	51							
MB 570-86295/1-A	Method Blank	44							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-86063/6
Matrix: Water
Analysis Batch: 86063

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/06/20 10:13	1
1,1,1-Trichloroethane	ND		0.50	0.084	ug/L			08/06/20 10:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.087	ug/L			08/06/20 10:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.13	ug/L			08/06/20 10:13	1
1,1,2-Trichloroethane	ND		0.50	0.069	ug/L			08/06/20 10:13	1
1,1-Dichloroethane	ND		0.50	0.060	ug/L			08/06/20 10:13	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/06/20 10:13	1
1,1-Dichloropropene	ND		0.50	0.070	ug/L			08/06/20 10:13	1
1,2,3-Trichlorobenzene	ND		0.50	0.12	ug/L			08/06/20 10:13	1
1,2,3-Trichloropropane	ND		1.0	0.076	ug/L			08/06/20 10:13	1
1,2,4-Trichlorobenzene	ND		0.50	0.089	ug/L			08/06/20 10:13	1
1,2,4-Trimethylbenzene	ND		0.50	0.068	ug/L			08/06/20 10:13	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.51	ug/L			08/06/20 10:13	1
1,2-Dibromoethane	ND		0.50	0.059	ug/L			08/06/20 10:13	1
1,2-Dichlorobenzene	ND		0.50	0.082	ug/L			08/06/20 10:13	1
1,2-Dichloroethane	ND		0.50	0.075	ug/L			08/06/20 10:13	1
1,2-Dichloropropane	ND		0.50	0.099	ug/L			08/06/20 10:13	1
1,3,5-Trimethylbenzene	ND		0.50	0.079	ug/L			08/06/20 10:13	1
1,3-Dichlorobenzene	ND		0.50	0.098	ug/L			08/06/20 10:13	1
1,3-Dichloropropane	ND		1.0	0.082	ug/L			08/06/20 10:13	1
1,4-Dichlorobenzene	ND		0.50	0.073	ug/L			08/06/20 10:13	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			08/06/20 10:13	1
2-Butanone	ND		5.0	0.46	ug/L			08/06/20 10:13	1
2-Chlorotoluene	ND		0.50	0.058	ug/L			08/06/20 10:13	1
2-Hexanone	ND		10	0.50	ug/L			08/06/20 10:13	1
4-Chlorotoluene	ND		0.50	0.091	ug/L			08/06/20 10:13	1
4-Methyl-2-pentanone	ND		5.0	0.42	ug/L			08/06/20 10:13	1
Acetone	ND		10	4.0	ug/L			08/06/20 10:13	1
Benzene	ND		0.50	0.072	ug/L			08/06/20 10:13	1
Bromobenzene	ND		0.50	0.061	ug/L			08/06/20 10:13	1
Bromochloromethane	ND		1.0	0.082	ug/L			08/06/20 10:13	1
Bromodichloromethane	ND		0.50	0.053	ug/L			08/06/20 10:13	1
Bromoform	ND		0.50	0.096	ug/L			08/06/20 10:13	1
Bromomethane	ND		2.0	0.99	ug/L			08/06/20 10:13	1
cis-1,2-Dichloroethene	ND		0.50	0.11	ug/L			08/06/20 10:13	1
cis-1,3-Dichloropropene	ND		0.50	0.096	ug/L			08/06/20 10:13	1
Carbon disulfide	ND		10	0.39	ug/L			08/06/20 10:13	1
Carbon tetrachloride	ND		0.50	0.057	ug/L			08/06/20 10:13	1
Chlorobenzene	ND		0.50	0.088	ug/L			08/06/20 10:13	1
Chloroethane	ND		0.50	0.12	ug/L			08/06/20 10:13	1
Chloroform	ND		0.50	0.062	ug/L			08/06/20 10:13	1
Chloromethane	ND		5.0	2.0	ug/L			08/06/20 10:13	1
Dibromochloromethane	ND		0.50	0.064	ug/L			08/06/20 10:13	1
Dibromomethane	ND		0.50	0.13	ug/L			08/06/20 10:13	1
Dichlorodifluoromethane	ND		1.0	0.099	ug/L			08/06/20 10:13	1
Ethylbenzene	ND		0.50	0.087	ug/L			08/06/20 10:13	1
Isopropylbenzene	ND		0.50	0.077	ug/L			08/06/20 10:13	1
Methylene Chloride	ND		1.0	0.043	ug/L			08/06/20 10:13	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-86063/6
Matrix: Water
Analysis Batch: 86063

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.067	ug/L			08/06/20 10:13	1
Naphthalene	ND		1.0	0.097	ug/L			08/06/20 10:13	1
n-Butylbenzene	ND		0.50	0.11	ug/L			08/06/20 10:13	1
N-Propylbenzene	ND		0.50	0.076	ug/L			08/06/20 10:13	1
o-Xylene	ND		0.50	0.086	ug/L			08/06/20 10:13	1
m,p-Xylene	ND		1.0	0.15	ug/L			08/06/20 10:13	1
p-Isopropyltoluene	ND		0.50	0.074	ug/L			08/06/20 10:13	1
sec-Butylbenzene	ND		0.50	0.095	ug/L			08/06/20 10:13	1
Styrene	ND		0.50	0.059	ug/L			08/06/20 10:13	1
trans-1,2-Dichloroethene	ND		0.50	0.082	ug/L			08/06/20 10:13	1
trans-1,3-Dichloropropene	ND		0.50	0.053	ug/L			08/06/20 10:13	1
tert-Butylbenzene	ND		0.50	0.082	ug/L			08/06/20 10:13	1
Tetrachloroethene	ND		0.50	0.24	ug/L			08/06/20 10:13	1
Toluene	ND		0.50	0.093	ug/L			08/06/20 10:13	1
Trichloroethene	ND		0.50	0.10	ug/L			08/06/20 10:13	1
Trichlorofluoromethane	ND		0.50	0.10	ug/L			08/06/20 10:13	1
Vinyl acetate	ND		5.0	0.70	ug/L			08/06/20 10:13	1
Vinyl chloride	ND		0.50	0.078	ug/L			08/06/20 10:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 128*		*08/06/20 10:13*	*1*
4-Bromofluorobenzene (Surr)	*97*		*68 - 120*		*08/06/20 10:13*	*1*
Dibromofluoromethane	*92*		*80 - 127*		*08/06/20 10:13*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*08/06/20 10:13*	*1*

Lab Sample ID: LCS 570-86063/3
Matrix: Water
Analysis Batch: 86063

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			10.0	8.972		ug/L		90	77 - 120		
1,2-Dibromoethane			10.0	10.01		ug/L		100	80 - 120		
1,2-Dichlorobenzene			10.0	9.956		ug/L		100	80 - 120		
1,2-Dichloroethane			10.0	10.45		ug/L		104	80 - 122		
Benzene			10.0	9.399		ug/L		94	80 - 120		
Carbon tetrachloride			10.0	10.49		ug/L		105	80 - 129		
Chlorobenzene			10.0	9.959		ug/L		100	80 - 120		
Ethylbenzene			10.0	10.01		ug/L		100	80 - 120		
Methyl-t-Butyl Ether (MTBE)			10.0	8.757		ug/L		88	75 - 123		
o-Xylene			10.0	10.50		ug/L		105	80 - 120		
m,p-Xylene			20.0	20.77		ug/L		104	80 - 120		
Toluene			10.0	9.704		ug/L		97	80 - 120		
Trichloroethene			10.0	9.890		ug/L		99	80 - 120		
Vinyl chloride			10.0	8.836		ug/L		88	63 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 128*
4-Bromofluorobenzene (Surr)	*102*		*68 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-86063/3
Matrix: Water
Analysis Batch: 86063

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	*97*		*80 - 127*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: LCSD 570-86063/4
Matrix: Water
Analysis Batch: 86063

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			10.0	8.716		ug/L		87	77 - 120	3	26
1,2-Dibromoethane			10.0	9.652		ug/L		97	80 - 120	4	32
1,2-Dichlorobenzene			10.0	9.934		ug/L		99	80 - 120	0	30
1,2-Dichloroethane			10.0	10.11		ug/L		101	80 - 122	3	23
Benzene			10.0	8.986		ug/L		90	80 - 120	4	22
Carbon tetrachloride			10.0	9.771		ug/L		98	80 - 129	7	36
Chlorobenzene			10.0	9.585		ug/L		96	80 - 120	4	29
Ethylbenzene			10.0	9.608		ug/L		96	80 - 120	4	25
Methyl-t-Butyl Ether (MTBE)			10.0	8.839		ug/L		88	75 - 123	1	27
o-Xylene			10.0	10.21		ug/L		102	80 - 120	3	30
m,p-Xylene			20.0	19.82		ug/L		99	80 - 120	5	30
Toluene			10.0	9.232		ug/L		92	80 - 120	5	28
Trichloroethene			10.0	9.389		ug/L		94	80 - 120	5	25
Vinyl chloride			10.0	8.423		ug/L		84	63 - 135	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*68 - 120*
Dibromofluoromethane	*97*		*80 - 127*
Toluene-d8 (Surr)	*99*		*80 - 120*

Lab Sample ID: MB 570-86296/6
Matrix: Water
Analysis Batch: 86296

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/20 10:47	1
1,1,1-Trichloroethane	ND		0.50	0.084	ug/L			08/07/20 10:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.087	ug/L			08/07/20 10:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.13	ug/L			08/07/20 10:47	1
1,1,2-Trichloroethane	ND		0.50	0.069	ug/L			08/07/20 10:47	1
1,1-Dichloroethane	ND		0.50	0.060	ug/L			08/07/20 10:47	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/07/20 10:47	1
1,1-Dichloropropene	ND		0.50	0.070	ug/L			08/07/20 10:47	1
1,2,3-Trichlorobenzene	ND		0.50	0.12	ug/L			08/07/20 10:47	1
1,2,3-Trichloropropane	ND		1.0	0.076	ug/L			08/07/20 10:47	1
1,2,4-Trichlorobenzene	ND		0.50	0.089	ug/L			08/07/20 10:47	1
1,2,4-Trimethylbenzene	ND		0.50	0.068	ug/L			08/07/20 10:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.51	ug/L			08/07/20 10:47	1
1,2-Dibromoethane	ND		0.50	0.059	ug/L			08/07/20 10:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-86296/6
Matrix: Water
Analysis Batch: 86296

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.50	0.082	ug/L			08/07/20 10:47	1
1,2-Dichloroethane	ND		0.50	0.075	ug/L			08/07/20 10:47	1
1,2-Dichloropropane	ND		0.50	0.099	ug/L			08/07/20 10:47	1
1,3,5-Trimethylbenzene	ND		0.50	0.079	ug/L			08/07/20 10:47	1
1,3-Dichlorobenzene	ND		0.50	0.098	ug/L			08/07/20 10:47	1
1,3-Dichloropropane	ND		1.0	0.082	ug/L			08/07/20 10:47	1
1,4-Dichlorobenzene	ND		0.50	0.073	ug/L			08/07/20 10:47	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			08/07/20 10:47	1
2-Butanone	ND		5.0	0.46	ug/L			08/07/20 10:47	1
2-Chlorotoluene	ND		0.50	0.058	ug/L			08/07/20 10:47	1
2-Hexanone	ND		10	0.50	ug/L			08/07/20 10:47	1
4-Chlorotoluene	ND		0.50	0.091	ug/L			08/07/20 10:47	1
4-Methyl-2-pentanone	ND		5.0	0.42	ug/L			08/07/20 10:47	1
Acetone	ND		10	4.0	ug/L			08/07/20 10:47	1
Benzene	ND		0.50	0.072	ug/L			08/07/20 10:47	1
Bromobenzene	ND		0.50	0.061	ug/L			08/07/20 10:47	1
Bromochloromethane	ND		1.0	0.082	ug/L			08/07/20 10:47	1
Bromodichloromethane	ND		0.50	0.053	ug/L			08/07/20 10:47	1
Bromoform	ND		0.50	0.096	ug/L			08/07/20 10:47	1
Bromomethane	ND		2.0	0.99	ug/L			08/07/20 10:47	1
cis-1,2-Dichloroethene	ND		0.50	0.11	ug/L			08/07/20 10:47	1
cis-1,3-Dichloropropene	ND		0.50	0.096	ug/L			08/07/20 10:47	1
Carbon disulfide	ND		10	0.39	ug/L			08/07/20 10:47	1
Carbon tetrachloride	ND		0.50	0.057	ug/L			08/07/20 10:47	1
Chlorobenzene	ND		0.50	0.088	ug/L			08/07/20 10:47	1
Chloroethane	ND		0.50	0.12	ug/L			08/07/20 10:47	1
Chloroform	ND		0.50	0.062	ug/L			08/07/20 10:47	1
Chloromethane	ND		5.0	2.0	ug/L			08/07/20 10:47	1
Dibromochloromethane	ND		0.50	0.064	ug/L			08/07/20 10:47	1
Dibromomethane	ND		0.50	0.13	ug/L			08/07/20 10:47	1
Dichlorodifluoromethane	ND		1.0	0.099	ug/L			08/07/20 10:47	1
Ethylbenzene	ND		0.50	0.087	ug/L			08/07/20 10:47	1
Isopropylbenzene	ND		0.50	0.077	ug/L			08/07/20 10:47	1
Methylene Chloride	ND		1.0	0.043	ug/L			08/07/20 10:47	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.067	ug/L			08/07/20 10:47	1
Naphthalene	ND		1.0	0.097	ug/L			08/07/20 10:47	1
n-Butylbenzene	ND		0.50	0.11	ug/L			08/07/20 10:47	1
N-Propylbenzene	ND		0.50	0.076	ug/L			08/07/20 10:47	1
o-Xylene	ND		0.50	0.086	ug/L			08/07/20 10:47	1
m,p-Xylene	ND		1.0	0.15	ug/L			08/07/20 10:47	1
p-Isopropyltoluene	ND		0.50	0.074	ug/L			08/07/20 10:47	1
sec-Butylbenzene	ND		0.50	0.095	ug/L			08/07/20 10:47	1
Styrene	ND		0.50	0.059	ug/L			08/07/20 10:47	1
trans-1,2-Dichloroethene	ND		0.50	0.082	ug/L			08/07/20 10:47	1
trans-1,3-Dichloropropene	ND		0.50	0.053	ug/L			08/07/20 10:47	1
tert-Butylbenzene	ND		0.50	0.082	ug/L			08/07/20 10:47	1
Tetrachloroethene	ND		0.50	0.24	ug/L			08/07/20 10:47	1
Toluene	ND		0.50	0.093	ug/L			08/07/20 10:47	1
Trichloroethene	ND		0.50	0.10	ug/L			08/07/20 10:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-86296/6
Matrix: Water
Analysis Batch: 86296

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		0.50	0.10	ug/L			08/07/20 10:47	1
Vinyl acetate	ND		5.0	0.70	ug/L			08/07/20 10:47	1
Vinyl chloride	ND		0.50	0.078	ug/L			08/07/20 10:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 128*		*08/07/20 10:47*	*1*
4-Bromofluorobenzene (Surr)	*93*		*68 - 120*		*08/07/20 10:47*	*1*
Dibromofluoromethane	*99*		*80 - 127*		*08/07/20 10:47*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*08/07/20 10:47*	*1*

Lab Sample ID: LCS 570-86296/3
Matrix: Water
Analysis Batch: 86296

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	10.0	9.846		ug/L		98	77 - 120
1,2-Dibromoethane	10.0	9.974		ug/L		100	80 - 120
1,2-Dichlorobenzene	10.0	10.12		ug/L		101	80 - 120
1,2-Dichloroethane	10.0	9.927		ug/L		99	80 - 122
Benzene	10.0	9.898		ug/L		99	80 - 120
Carbon tetrachloride	10.0	10.55		ug/L		105	80 - 129
Chlorobenzene	10.0	10.16		ug/L		102	80 - 120
Ethylbenzene	10.0	10.14		ug/L		101	80 - 120
Methyl-t-Butyl Ether (MTBE)	10.0	8.399		ug/L		84	75 - 123
o-Xylene	10.0	10.52		ug/L		105	80 - 120
m,p-Xylene	20.0	21.20		ug/L		106	80 - 120
Toluene	10.0	9.842		ug/L		98	80 - 120
Trichloroethene	10.0	9.053		ug/L		91	80 - 120
Vinyl chloride	10.0	8.715		ug/L		87	63 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*68 - 120*
Dibromofluoromethane	*92*		*80 - 127*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: LCSD 570-86296/4
Matrix: Water
Analysis Batch: 86296

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	10.0	9.138		ug/L		91	77 - 120	7	26
1,2-Dibromoethane	10.0	10.09		ug/L		101	80 - 120	1	32
1,2-Dichlorobenzene	10.0	10.05		ug/L		101	80 - 120	1	30
1,2-Dichloroethane	10.0	10.14		ug/L		101	80 - 122	2	23
Benzene	10.0	9.839		ug/L		98	80 - 120	1	22
Carbon tetrachloride	10.0	9.889		ug/L		99	80 - 129	6	36
Chlorobenzene	10.0	9.798		ug/L		98	80 - 120	4	29

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 570-86296/4
Matrix: Water
Analysis Batch: 86296

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			10.0	9.865		ug/L		99	80 - 120	3	25
Methyl-t-Butyl Ether (MTBE)			10.0	8.555		ug/L		86	75 - 123	2	27
o-Xylene			10.0	10.17		ug/L		102	80 - 120	3	30
m,p-Xylene			20.0	20.37		ug/L		102	80 - 120	4	30
Toluene			10.0	9.984		ug/L		100	80 - 120	1	28
Trichloroethene			10.0	9.397		ug/L		94	80 - 120	4	25
Vinyl chloride			10.0	8.356		ug/L		84	63 - 135	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 128*
4-Bromofluorobenzene (Surr)	*101*		*68 - 120*
Dibromofluoromethane	*93*		*80 - 127*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: MB 570-86953/6
Matrix: Water
Analysis Batch: 86953

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/11/20 10:17	1
1,1,1-Trichloroethane	ND		0.50	0.084	ug/L			08/11/20 10:17	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.087	ug/L			08/11/20 10:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.13	ug/L			08/11/20 10:17	1
1,1,2-Trichloroethane	ND		0.50	0.069	ug/L			08/11/20 10:17	1
1,1-Dichloroethane	ND		0.50	0.060	ug/L			08/11/20 10:17	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/11/20 10:17	1
1,1-Dichloropropene	ND		0.50	0.070	ug/L			08/11/20 10:17	1
1,2,3-Trichlorobenzene	ND		0.50	0.12	ug/L			08/11/20 10:17	1
1,2,3-Trichloropropane	ND		1.0	0.076	ug/L			08/11/20 10:17	1
1,2,4-Trichlorobenzene	ND		0.50	0.089	ug/L			08/11/20 10:17	1
1,2,4-Trimethylbenzene	ND		0.50	0.068	ug/L			08/11/20 10:17	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.51	ug/L			08/11/20 10:17	1
1,2-Dibromoethane	ND		0.50	0.059	ug/L			08/11/20 10:17	1
1,2-Dichlorobenzene	ND		0.50	0.082	ug/L			08/11/20 10:17	1
1,2-Dichloroethane	ND		0.50	0.075	ug/L			08/11/20 10:17	1
1,2-Dichloropropane	ND		0.50	0.099	ug/L			08/11/20 10:17	1
1,3,5-Trimethylbenzene	ND		0.50	0.079	ug/L			08/11/20 10:17	1
1,3-Dichlorobenzene	ND		0.50	0.098	ug/L			08/11/20 10:17	1
1,3-Dichloropropane	ND		1.0	0.082	ug/L			08/11/20 10:17	1
1,4-Dichlorobenzene	ND		0.50	0.073	ug/L			08/11/20 10:17	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			08/11/20 10:17	1
2-Butanone	ND		5.0	0.46	ug/L			08/11/20 10:17	1
2-Chlorotoluene	ND		0.50	0.058	ug/L			08/11/20 10:17	1
2-Hexanone	ND		10	0.50	ug/L			08/11/20 10:17	1
4-Chlorotoluene	ND		0.50	0.091	ug/L			08/11/20 10:17	1
4-Methyl-2-pentanone	ND		5.0	0.42	ug/L			08/11/20 10:17	1
Acetone	ND		10	4.0	ug/L			08/11/20 10:17	1
Benzene	ND		0.50	0.072	ug/L			08/11/20 10:17	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-86953/6
Matrix: Water
Analysis Batch: 86953

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	ND		0.50	0.061	ug/L			08/11/20 10:17	1
Bromochloromethane	ND		1.0	0.082	ug/L			08/11/20 10:17	1
Bromodichloromethane	ND		0.50	0.053	ug/L			08/11/20 10:17	1
Bromoform	ND		0.50	0.096	ug/L			08/11/20 10:17	1
Bromomethane	ND		2.0	0.99	ug/L			08/11/20 10:17	1
cis-1,2-Dichloroethene	ND		0.50	0.11	ug/L			08/11/20 10:17	1
cis-1,3-Dichloropropene	ND		0.50	0.096	ug/L			08/11/20 10:17	1
Carbon disulfide	ND		10	0.39	ug/L			08/11/20 10:17	1
Carbon tetrachloride	ND		0.50	0.057	ug/L			08/11/20 10:17	1
Chlorobenzene	ND		0.50	0.088	ug/L			08/11/20 10:17	1
Chloroethane	ND		0.50	0.12	ug/L			08/11/20 10:17	1
Chloroform	ND		0.50	0.062	ug/L			08/11/20 10:17	1
Chloromethane	ND		5.0	2.0	ug/L			08/11/20 10:17	1
Dibromochloromethane	ND		0.50	0.064	ug/L			08/11/20 10:17	1
Dibromomethane	ND		0.50	0.13	ug/L			08/11/20 10:17	1
Dichlorodifluoromethane	ND		1.0	0.099	ug/L			08/11/20 10:17	1
Ethylbenzene	ND		0.50	0.087	ug/L			08/11/20 10:17	1
Isopropylbenzene	ND		0.50	0.077	ug/L			08/11/20 10:17	1
Methylene Chloride	ND		1.0	0.043	ug/L			08/11/20 10:17	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.067	ug/L			08/11/20 10:17	1
Naphthalene	ND		1.0	0.097	ug/L			08/11/20 10:17	1
n-Butylbenzene	ND		0.50	0.11	ug/L			08/11/20 10:17	1
N-Propylbenzene	ND		0.50	0.076	ug/L			08/11/20 10:17	1
o-Xylene	ND		0.50	0.086	ug/L			08/11/20 10:17	1
m,p-Xylene	ND		1.0	0.15	ug/L			08/11/20 10:17	1
p-Isopropyltoluene	ND		0.50	0.074	ug/L			08/11/20 10:17	1
sec-Butylbenzene	ND		0.50	0.095	ug/L			08/11/20 10:17	1
Styrene	ND		0.50	0.059	ug/L			08/11/20 10:17	1
trans-1,2-Dichloroethene	ND		0.50	0.082	ug/L			08/11/20 10:17	1
trans-1,3-Dichloropropene	ND		0.50	0.053	ug/L			08/11/20 10:17	1
tert-Butylbenzene	ND		0.50	0.082	ug/L			08/11/20 10:17	1
Tetrachloroethene	ND		0.50	0.24	ug/L			08/11/20 10:17	1
Toluene	ND		0.50	0.093	ug/L			08/11/20 10:17	1
Trichloroethene	ND		0.50	0.10	ug/L			08/11/20 10:17	1
Trichlorofluoromethane	ND		0.50	0.10	ug/L			08/11/20 10:17	1
Vinyl acetate	ND		5.0	0.70	ug/L			08/11/20 10:17	1
Vinyl chloride	ND		0.50	0.078	ug/L			08/11/20 10:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 128*		*08/11/20 10:17*	*1*
4-Bromofluorobenzene (Surr)	*97*		*68 - 120*		*08/11/20 10:17*	*1*
Dibromofluoromethane	*90*		*80 - 127*		*08/11/20 10:17*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*08/11/20 10:17*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-86953/3
Matrix: Water
Analysis Batch: 86953

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			10.0	8.317		ug/L		83	77 - 120		
1,2-Dibromoethane			10.0	10.31		ug/L		103	80 - 120		
1,2-Dichlorobenzene			10.0	10.02		ug/L		100	80 - 120		
1,2-Dichloroethane			10.0	10.15		ug/L		101	80 - 122		
Benzene			10.0	9.687		ug/L		97	80 - 120		
Carbon tetrachloride			10.0	9.642		ug/L		96	80 - 129		
Chlorobenzene			10.0	10.04		ug/L		100	80 - 120		
Ethylbenzene			10.0	10.51		ug/L		105	80 - 120		
Methyl-t-Butyl Ether (MTBE)			10.0	9.990		ug/L		100	75 - 123		
o-Xylene			10.0	11.02		ug/L		110	80 - 120		
m,p-Xylene			20.0	21.39		ug/L		107	80 - 120		
Toluene			10.0	9.958		ug/L		100	80 - 120		
Trichloroethene			10.0	9.814		ug/L		98	80 - 120		
Vinyl chloride			10.0	9.044		ug/L		90	63 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 128*
4-Bromofluorobenzene (Surr)	*104*		*68 - 120*
Dibromofluoromethane	*96*		*80 - 127*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: LCSD 570-86953/4
Matrix: Water
Analysis Batch: 86953

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			10.0	7.895		ug/L		79	77 - 120	5	26
1,2-Dibromoethane			10.0	9.788		ug/L		98	80 - 120	5	32
1,2-Dichlorobenzene			10.0	9.830		ug/L		98	80 - 120	2	30
1,2-Dichloroethane			10.0	10.18		ug/L		102	80 - 122	0	23
Benzene			10.0	9.421		ug/L		94	80 - 120	3	22
Carbon tetrachloride			10.0	9.352		ug/L		94	80 - 129	3	36
Chlorobenzene			10.0	9.793		ug/L		98	80 - 120	3	29
Ethylbenzene			10.0	10.13		ug/L		101	80 - 120	4	25
Methyl-t-Butyl Ether (MTBE)			10.0	10.18		ug/L		102	75 - 123	2	27
o-Xylene			10.0	10.69		ug/L		107	80 - 120	3	30
m,p-Xylene			20.0	20.59		ug/L		103	80 - 120	4	30
Toluene			10.0	9.865		ug/L		99	80 - 120	1	28
Trichloroethene			10.0	9.644		ug/L		96	80 - 120	2	25
Vinyl chloride			10.0	8.614		ug/L		86	63 - 135	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 128*
4-Bromofluorobenzene (Surr)	*105*		*68 - 120*
Dibromofluoromethane	*95*		*80 - 127*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-86295/1-A
Matrix: Water
Analysis Batch: 86767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 86295

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.18	ug/L		08/07/20 07:38	08/10/20 11:19	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*44*		*15 - 150*	*08/07/20 07:38*	*08/10/20 11:19*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*97*		*46 - 128*	*08/07/20 07:38*	*08/10/20 11:19*	*1*

Lab Sample ID: LCS 570-86295/2-A
Matrix: Water
Analysis Batch: 86767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 86295

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	17.96		ug/L		90	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*42*		*15 - 150*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*92*		*46 - 128*

Lab Sample ID: LCSD 570-86295/3-A
Matrix: Water
Analysis Batch: 86767

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 86295

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	19.26		ug/L		96	57 - 136	7	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*51*		*15 - 150*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*112*		*46 - 128*

QC Association Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

GC/MS VOA

Analysis Batch: 86063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35063-1	TB-080520B	Total/NA	Water	8260B	
570-35063-2	MW-42	Total/NA	Water	8260B	
MB 570-86063/6	Method Blank	Total/NA	Water	8260B	
LCS 570-86063/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-86063/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 86296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35063-3	MW-32B	Total/NA	Water	8260B	
MB 570-86296/6	Method Blank	Total/NA	Water	8260B	
LCS 570-86296/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-86296/4	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 86953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35063-3 - DL	MW-32B	Total/NA	Water	8260B	
MB 570-86953/6	Method Blank	Total/NA	Water	8260B	
LCS 570-86953/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-86953/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 86295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35063-2	MW-42	Total/NA	Water	3510C	
570-35063-3	MW-32B	Total/NA	Water	3510C	
MB 570-86295/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-86295/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-86295/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 86767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35063-2	MW-42	Total/NA	Water	8270C SIM ID	86295
570-35063-3	MW-32B	Total/NA	Water	8270C SIM ID	86295
MB 570-86295/1-A	Method Blank	Total/NA	Water	8270C SIM ID	86295
LCS 570-86295/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	86295
LCSD 570-86295/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	86295

Lab Chronicle

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Client Sample ID: TB-080520B

Date Collected: 08/05/20 08:15
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	86063	08/06/20 14:35	UJHB	ECL 2
	Instrument ID: GCMSUU									

Client Sample ID: MW-42

Date Collected: 08/05/20 14:31
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	86063	08/06/20 18:54	UJHB	ECL 2
	Instrument ID: GCMSUU									
Total/NA	Prep	3510C			100.0 mL	10 mL	86295	08/07/20 07:38		ECL 1
Total/NA	Analysis	8270C SIM ID		1			86767	08/10/20 22:14	AJ2Q	ECL 1
	Instrument ID: GCMSDDD									

Client Sample ID: MW-32B

Date Collected: 08/05/20 14:40
Date Received: 08/05/20 17:20

Lab Sample ID: 570-35063-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	86296	08/07/20 18:32	UJHB	ECL 2
	Instrument ID: GCMSL									
Total/NA	Analysis	8260B	DL	4	20 mL	20 mL	86953	08/11/20 14:12	UJHB	ECL 2
	Instrument ID: GCMSUU									
Total/NA	Prep	3510C			100.1 mL	10 mL	86295	08/07/20 07:38		ECL 1
Total/NA	Analysis	8270C SIM ID		1			86767	08/10/20 17:54	AJ2Q	ECL 1
	Instrument ID: GCMSDDD									

Laboratory References:

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

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Laboratory: Eurofins Calscience LLC

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

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

Method Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon Main / 532.30

Job ID: 570-35063-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-35063-1	TB-080520B	Water	08/05/20 08:15	08/05/20 17:20	
570-35063-2	MW-42	Water	08/05/20 14:31	08/05/20 17:20	
570-35063-3	MW-32B	Water	08/05/20 14:40	08/05/20 17:20	

35063

35063

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

570-35063 Chain of Custody

Date: 8/5/20
Page 1 of 1

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: A. DONNELLY, R. ADAMS

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Ice	40-ml VOA	500ml Amber 1L amber	VOCs by EPA 8260B	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD	Expected Concetration Range (ppb) for VOA's: 0 - 10	10 - 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
1	TB-080520B	8/5/20	0815		X	X	X	2		X			X						X			Report J Flags
2	MW-42	↓	1431	X		X	X	3		X				X					X			
3	↓		↓	X			X		1		X								X			
4 3	MW-32B		1440	X		X	X	3		X				X					X			
5	↓		↓	X			X		1		X								X			

Total number of containers per analysis:

Total No. of Containers: ___

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
A Donnelly / H+A	8/5/20 1645	ECI	8/5/20 1645
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
	8/5/20 1720	ECI	8/5/20 17:20

- ☐ No. of containers correct
- ☐ Received in good condition
- ☐ Custody seals secure
- ☐ Conforms to COC document

_____ Temperature on receipt

Laboratory
Eurofins Calscience, Inc.
Attn: Virendra Patel
7440 Lincoln Way
Garden Grove, CA 92891
714-895-5494

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

2.5/2.5 SC6

8/13/2020

August 20, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001859
Client Reference : Raytheon Main, 532.74

Enclosed are the results for sample(s) received on August 06, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/20/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-34B	2001859-01	Groundwater	8/06/20 9:10	8/06/20 17:05
MW-31	2001859-02	Groundwater	8/06/20 10:14	8/06/20 17:05
EW-01	2001859-03	Groundwater	8/06/20 14:05	8/06/20 17:05
MW-21	2001859-04	Groundwater	8/06/20 13:32	8/06/20 17:05
MW-29	2001859-05	Groundwater	8/06/20 14:50	8/06/20 17:05
EW-02	2001859-06	Groundwater	8/06/20 14:27	8/06/20 17:05

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Samples for Carbon Dioxide by SM 4500-CO2 D analysis was subcontracted to Eurofins Calscience with CA-ELAP Cert. 2944.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/20/2020

Client Sample ID: MW-34B

Lab ID: 2001859-01

Sulfide, Total by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0149	08/11/2020	08/11/20 17:19	

Sulfide, Dissolved by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0148	08/11/2020	08/11/20 16:17	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/20/2020

Client Sample ID: MW-31

Lab ID: 2001859-02

Sulfide, Total by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0149	08/11/2020	08/11/20 17:19	

Sulfide, Dissolved by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0148	08/11/2020	08/11/20 16:17	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/20/2020

Client Sample ID: EW-01

Lab ID: 2001859-03

Sulfide, Total by SM 4500-S=D — **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0149	08/11/2020	08/11/20 17:19	

Sulfide, Dissolved by SM 4500-S=D — **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0148	08/11/2020	08/11/20 16:17	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/20/2020

Client Sample ID: MW-21

Lab ID: 2001859-04

Sulfide, Total by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0149	08/11/2020	08/11/20 17:19	

Sulfide, Dissolved by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0148	08/11/2020	08/11/20 16:17	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/20/2020

Client Sample ID: MW-29

Lab ID: 2001859-05

Sulfide, Total by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0149	08/11/2020	08/11/20 17:19	

Sulfide, Dissolved by SM 4500-S=D **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0148	08/11/2020	08/11/20 16:17	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/20/2020

Client Sample ID: EW-02

Lab ID: 2001859-06

Sulfide, Total by SM 4500-S=D — **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.006	1	B0H0149	08/11/2020	08/11/20 17:19	

Sulfide, Dissolved by SM 4500-S=D — **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Dissolved	ND	0.010	0.004	1	B0H0148	08/11/2020	08/11/20 16:17	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/20/2020

QUALITY CONTROL SECTION

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0149 - Prep_WC3_W										
Blank (B0H0149-BLK1)					Prepared: 8/11/2020 Analyzed: 8/11/2020					
Sulfide, Total	ND	0.010	0.006							
LCS (B0H0149-BS1)					Prepared: 8/11/2020 Analyzed: 8/11/2020					
Sulfide, Total	0.098	0.010	0.006	0.112500		87.1	80 - 120			
Matrix Spike (B0H0149-MS1)			**Source: 2001859-06**		Prepared: 8/11/2020 Analyzed: 8/11/2020					
Sulfide, Total	0.112000	0.010	0.006	0.112500	ND	99.6	80 - 120			
Matrix Spike Dup (B0H0149-MSD1)			**Source: 2001859-06**		Prepared: 8/11/2020 Analyzed: 8/11/2020					
Sulfide, Total	0.112000	0.010	0.006	0.112500	ND	99.6	80 - 120	0.00	20	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/20/2020

Sulfide, Dissolved by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0148 - Prep_WC3_W										
Blank (B0H0148-BLK1)					Prepared: 8/11/2020 Analyzed: 8/11/2020					
Sulfide, Dissolved	ND	0.010	0.004							
LCS (B0H0148-BS1)					Prepared: 8/11/2020 Analyzed: 8/11/2020					
Sulfide, Dissolved	0.098	0.010	0.004	0.112500		87.1	80 - 120			
Matrix Spike (B0H0148-MS1)			**Source: 2001859-06**		Prepared: 8/11/2020 Analyzed: 8/11/2020					
Sulfide, Dissolved	0.097	0.010	0.004	0.112500	ND	86.2	80 - 120			
Matrix Spike Dup (B0H0148-MSD1)			**Source: 2001859-06**		Prepared: 8/11/2020 Analyzed: 8/11/2020					
Sulfide, Dissolved	0.097	0.010	0.004	0.112500	ND	86.2	80 - 120	0.00	20	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.74
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/20/2020

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

2006859

Date: 08.06.20
Page 1 of 2

PROJECT: Raytheon Main

TASK NO.: ~~532.30~~ 532.74

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: AMD, AMJ, RA, DJS

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	NaOH/AlCl3	NaOH/Zn	Ice	CONTAINERS: 40-ml VOA	1 L Amber	250-ml poly	250-ml Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD	CO2 by SM4500	Dissolved Sulfide by SM4500 S2-d	Total Sulfide by SM-4500 S2-d	Expected Concetration Range (ppb) for VOA's: 0 - 10	10- 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2006859 01	MW-34B	08.06.20	0910	X				X	X			X							X							X			Report J Flags
02	↓		↓	X			X		X			X						X								X			
03	↓		↓	X					X				X				X									X			
02	MW-31		1014	X				X	X			X							X								X			
	↓		↓	X			X		X			X						X								X			
	↓		↓	X					X				X				X									X			
03	EW-01		1405	X				X	X			X							X								X			
	↓		↓	X			X		X			X						X								X			
	↓		↓	X					X				X				X									X			
04	MW-21	1352 ~~1337~~	↓	X				X	X			X							X								X			
	↓		↓	X			X		X			X						X								X			
	↓		↓	X					X				X				X									X			
05	MW-29		1450	X				X	X			X							X								X			
	↓		↓	X			X		X			X						X								X			
↓	↓	↓	↓	X					X				X				X									X			

Total number of containers per analysis:

Total No. of Containers:

Relinquished By: / Company	Date / Time	Received By: / Company	Date / Time
ADailly / H+A	8/6/20 1705	[signature] AHL	8/6/20 17:05
[signature] AHL	8/6/20 17:41	[signature]	8.6.2020 1741

- ✓ No. of containers correct
- ✓ Received in good condition
- ✓ Custody seals secure
- ✓ Conforms to COC document

3.4 Temperature on receipt

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Laboratory
ATL
Attn: Tina Nguyen
3257 Walnut Ave
Signal Hill, CA 90755
562-989-4045

Instructions
- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
- Note applicable preservatives, special instructions, and deviations from typical environmental samples.
- Consult project QA documents for specific instructions.

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 8/6/20
Page 2 of 2

PROJECT: Raytheon Main

TASK NO.: ~~532.30~~ 532.74

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: AMD, RA, AMJ, DJS

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	NaOH/AlCl3	NaOH/Zn	Ice	CONTAINERS: 40-ml VOA	1 L Amber	250-ml poly	250-ml Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD	CO2 by SM4500	Dissolved Sulfide by SM4500 S2-d	Total Sulfide by SM-4500 S2-d	Expected Concetration Range (ppb) for VOA's: 0 - 10	10- 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
280-1859-8	EW-02	8/6/20	1427	X				X	X			X						X	X							X			Report J Flags
				X			X		X			X						X								X			
				X					X				X				X									X			

Total number of containers per analysis:

Total No. of Containers:

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
HARGIS + ASSOCIATES	8/6/20 1705		8/6/20 17:05
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
	8/6/20 17:41		

- ☐ No. of containers correct
- ☐ Received in good condition
- ☐ Custody seals secure
- ☐ Conforms to COC document

_____ Temperature on receipt

Laboratory
ATL
Attn: Tina Nguyen
3257 Walnut Ave
Signal Hill, CA 90755
562-989-4045

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions

- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
- Note applicable preservatives, special instructions, and deviations from typical environmental samples.
- Consult project QA documents for specific instructions.

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ANALYTICAL REPORT

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

Laboratory Job ID: 570-35185-1
Client Project/Site: 2001859

For:
Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, California 90807

Attn: Tina Nguyen

Authorized for release by:
8/20/2020 5:34:54 PM

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

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Definitions/Glossary

Client: Advanced Technology Laboratories
Project/Site: 2001859

Job ID: 570-35185-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Advanced Technology Laboratories
Project/Site: 2001859

Job ID: 570-35185-1

Job ID: 570-35185-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-35185-1

Comments
No additional comments.

Receipt
The samples were received on 8/6/2020 6:09 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4° C.

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

Detection Summary

Client: Advanced Technology Laboratories
Project/Site: 2001859

Job ID: 570-35185-1

Client Sample ID: 2001859-01 / MW-34B — Lab Sample ID: 570-35185-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	175		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

Client Sample ID: 2001859-02 / MW-31 — Lab Sample ID: 570-35185-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	174		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

Client Sample ID: 2001859-03 / EW-01 — Lab Sample ID: 570-35185-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	245		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

Client Sample ID: 2001859-04 / MW-21 — Lab Sample ID: 570-35185-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	217		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

Client Sample ID: 2001859-05 / MW-29 — Lab Sample ID: 570-35185-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	222		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

Client Sample ID: 2001859-06 / EW-02 — Lab Sample ID: 570-35185-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon dioxide	185		1.00	0.590	mg/L	1		SM 4500 CO2 D	Total/NA

This Detection Summary does not include radiochemical test results.

General Chemistry

Client Sample ID: 2001859-01 / MW-34B
Date Collected: 08/06/20 09:10
Date Received: 08/06/20 18:09

Lab Sample ID: 570-35185-1
Matrix: Ground Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	175		1.00	0.590	mg/L			08/20/20 10:00	1

Client Sample ID: 2001859-02 / MW-31
Date Collected: 08/06/20 10:14
Date Received: 08/06/20 18:09

Lab Sample ID: 570-35185-2
Matrix: Ground Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	174		1.00	0.590	mg/L			08/20/20 10:00	1

Client Sample ID: 2001859-03 / EW-01
Date Collected: 08/06/20 14:05
Date Received: 08/06/20 18:09

Lab Sample ID: 570-35185-3
Matrix: Ground Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	245		1.00	0.590	mg/L			08/20/20 10:00	1

Client Sample ID: 2001859-04 / MW-21
Date Collected: 08/06/20 13:32
Date Received: 08/06/20 18:09

Lab Sample ID: 570-35185-4
Matrix: Ground Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	217		1.00	0.590	mg/L			08/20/20 10:00	1

Client Sample ID: 2001859-05 / MW-29
Date Collected: 08/06/20 14:50
Date Received: 08/06/20 18:09

Lab Sample ID: 570-35185-5
Matrix: Ground Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	222		1.00	0.590	mg/L			08/20/20 10:00	1

Client Sample ID: 2001859-06 / EW-02
Date Collected: 08/06/20 14:27
Date Received: 08/06/20 18:09

Lab Sample ID: 570-35185-6
Matrix: Ground Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	185		1.00	0.590	mg/L			08/20/20 10:00	1

Client: Advanced Technology Laboratories
Project/Site: 2001859

Job ID: 570-35185-1

Method: SM 4500 CO2 D - Carbon Dioxide and Forms of Alkalinity by Calculation

Lab Sample ID: MB 570-89304/1
Matrix: Water
Analysis Batch: 89304

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon dioxide	ND		1.00	0.590	mg/L			08/20/20 10:00	1

Lab Sample ID: 570-35185-6 DU
Matrix: Ground Water
Analysis Batch: 89304

Client Sample ID: 2001859-06 / EW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Carbon dioxide	185			183.5		mg/L				1	25

QC Association Summary

Client: Advanced Technology Laboratories
Project/Site: 2001859

Job ID: 570-35185-1

General Chemistry

Analysis Batch: 89304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35185-1	2001859-01 / MW-34B	Total/NA	Ground Water	SM 4500 CO2 D	
570-35185-2	2001859-02 / MW-31	Total/NA	Ground Water	SM 4500 CO2 D	
570-35185-3	2001859-03 / EW-01	Total/NA	Ground Water	SM 4500 CO2 D	
570-35185-4	2001859-04 / MW-21	Total/NA	Ground Water	SM 4500 CO2 D	
570-35185-5	2001859-05 / MW-29	Total/NA	Ground Water	SM 4500 CO2 D	
570-35185-6	2001859-06 / EW-02	Total/NA	Ground Water	SM 4500 CO2 D	
MB 570-89304/1	Method Blank	Total/NA	Water	SM 4500 CO2 D	
570-35185-6 DU	2001859-06 / EW-02	Total/NA	Ground Water	SM 4500 CO2 D	

Lab Chronicle

Client: Advanced Technology Laboratories
Project/Site: 2001859

Job ID: 570-35185-1

Client Sample ID: 2001859-01 / MW-34B
Lab Sample ID: 570-35185-1
Date Collected: 08/06/20 09:10
Matrix: Ground Water
Date Received: 08/06/20 18:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			89304	08/20/20 10:00	UAPD	ECL 1
	Instrument ID: PH1									

Client Sample ID: 2001859-02 / MW-31
Lab Sample ID: 570-35185-2
Date Collected: 08/06/20 10:14
Matrix: Ground Water
Date Received: 08/06/20 18:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			89304	08/20/20 10:00	UAPD	ECL 1
	Instrument ID: PH1									

Client Sample ID: 2001859-03 / EW-01
Lab Sample ID: 570-35185-3
Date Collected: 08/06/20 14:05
Matrix: Ground Water
Date Received: 08/06/20 18:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			89304	08/20/20 10:00	UAPD	ECL 1
	Instrument ID: PH1									

Client Sample ID: 2001859-04 / MW-21
Lab Sample ID: 570-35185-4
Date Collected: 08/06/20 13:32
Matrix: Ground Water
Date Received: 08/06/20 18:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			89304	08/20/20 10:00	UAPD	ECL 1
	Instrument ID: PH1									

Client Sample ID: 2001859-05 / MW-29
Lab Sample ID: 570-35185-5
Date Collected: 08/06/20 14:50
Matrix: Ground Water
Date Received: 08/06/20 18:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			89304	08/20/20 10:00	UAPD	ECL 1
	Instrument ID: PH1									

Client Sample ID: 2001859-06 / EW-02
Lab Sample ID: 570-35185-6
Date Collected: 08/06/20 14:27
Matrix: Ground Water
Date Received: 08/06/20 18:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CO2 D		1			89304	08/20/20 10:00	UAPD	ECL 1
	Instrument ID: PH1									

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

Accreditation/Certification Summary

Client: Advanced Technology Laboratories
Project/Site: 2001859

Job ID: 570-35185-1

Laboratory: Eurofins Calscience LLC

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

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

Method Summary

Client: Advanced Technology Laboratories
Project/Site: 2001859

Job ID: 570-35185-1

Method	Method Description	Protocol	Laboratory
SM 4500 CO2 D	Carbon Dioxide and Forms of Alkalinity by Calculation	SM	ECL 1

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Advanced Technology Laboratories
Project/Site: 2001859

Job ID: 570-35185-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-35185-1	2001859-01 / MW-34B	Ground Water	08/06/20 09:10	08/06/20 18:09	
570-35185-2	2001859-02 / MW-31	Ground Water	08/06/20 10:14	08/06/20 18:09	
570-35185-3	2001859-03 / EW-01	Ground Water	08/06/20 14:05	08/06/20 18:09	
570-35185-4	2001859-04 / MW-21	Ground Water	08/06/20 13:32	08/06/20 18:09	
570-35185-5	2001859-05 / MW-29	Ground Water	08/06/20 14:50	08/06/20 18:09	
570-35185-6	2001859-06 / EW-02	Ground Water	08/06/20 14:27	08/06/20 18:09	

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 2001859

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Tina Nguyen
(Tina.Nguyen@atlglobal.com)

RECEIVING LABORATORY:

Eurofins Calscience, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone :(714) 895-5494
Fax: (714) 894-7501
PO#: SC14805-STANDARD TAT

Sampler: AMJ,AMD,DJS,RA

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 2001859-01 / MW-34B		**Groundwater**	**08/06/20 09:10**	**Report down to the MDL**
4500CO2_C_SUB	**08/20/20 17:00**	08/06/20 16:22		
[Free Carbon Dioxide]				
1-Amber Unpres - 250mL				
ATL Lab#: 2001859-02 / MW-31		**Groundwater**	**08/06/20 10:14**	
4500CO2_C_SUB	**08/20/20 17:00**	08/06/20 17:26		
[Free Carbon Dioxide]				
1-Amber Unpres - 250mL				
ATL Lab#: 2001859-03 / EW-01		**Groundwater**	**08/06/20 14:05**	
4500CO2_C_SUB	**08/20/20 17:00**	08/06/20 21:17		
[Free Carbon Dioxide]				
1-Amber Unpres - 250mL				
ATL Lab#: 2001859-04 / MW-21		**Groundwater**	**08/06/20 13:32**	
4500CO2_C_SUB	**08/20/20 17:00**	08/06/20 20:44		
[Free Carbon Dioxide]				
1-Amber Unpres - 250mL				

570-35185 Chain of Custody

Approved by: 8/6/2020
ATL Project Manager Date

8.6.2020
Released By ATL Sample Control Date

8/6/20
Received By Courier Date

8/6/20 18:09
Released By Courier Date

8/6/20 18:09
Received By Subcontract Laboratory Date

Released By Date

Received By Date

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2.4/2.4 SCB

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35185

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 2001859

Analysis		Due	Expires	Sampled	Comments
ATL Lab#: 2001859-05	**/ MW-29**		**Groundwater**	**08/06/20 14:50**	
4500CO2_C_SUB		**08/20/20 17:00**	08/06/20 22:02		
[Free Carbon Dioxide]					
1-Amber Unpres - 250mL					
ATL Lab#: 2001859-06	**/ EW-02**		**Groundwater**	**08/06/20 14:27**	
4500CO2_C_SUB		**08/20/20 17:00**	08/06/20 21:39		
[Free Carbon Dioxide]					
1-Amber Unpres - 250mL					

Approved by: 8/6/2020

ATL Project Manager — Date

8.6.2020 — 8/6/20

Released By ATL Sample Control — Date — Received By Courier — Date

F/6/20 18:09 — bannyle EL 8/6/20 18:09

Released By Courier — Date — Received By Subcontract Laboratory — Date

Released By — Date — Received By — Date

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Page 2 of 2

Login Sample Receipt Checklist

Client: Advanced Technology Laboratories

Job Number: 570-35185-1

Login Number: 35185
List Number: 1
Creator: Le, Danny

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ADVANCED TECHNOLOGY LABORATORIES

August 14, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001862
Client Reference : Raytheon Main, 532.30

Enclosed are the results for sample(s) received on August 06, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-080620A	2001862-01	Water	8/06/20 8:30	8/06/20 17:05
MW-34C	2001862-02	Groundwater	8/06/20 8:43	8/06/20 17:05
MW-34B	2001862-03	Groundwater	8/06/20 9:10	8/06/20 17:05
MW-41	2001862-04	Groundwater	8/06/20 12:47	8/06/20 17:05
MW-30A	2001862-05	Groundwater	8/06/20 9:21	8/06/20 17:05
MW-31	2001862-06	Groundwater	8/06/20 10:14	8/06/20 17:05
MW-3100	2001862-07	Groundwater	8/06/20 10:19	8/06/20 17:05
MW-30B	2001862-08	Groundwater	8/06/20 12:40	8/06/20 17:05
MW-21	2001862-09	Groundwater	8/06/20 13:32	8/06/20 17:05
EW-01	2001862-10	Groundwater	8/06/20 14:05	8/06/20 17:05

CASE NARRATIVE

Results were J-flagged. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: TB-080620A

Lab ID: 2001862-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:14	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 20:14	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0100	08/07/2020	08/07/20 20:14	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0100	08/07/2020	08/07/20 20:14	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:14	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:14	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:14	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0100	08/07/2020	08/07/20 20:14	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 20:14	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 20:14	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 20:14	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 20:14	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0100	08/07/2020	08/07/20 20:14	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 20:14	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 20:14	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 20:14	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:14	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 20:14	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 20:14	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0100	08/07/2020	08/07/20 20:14	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0100	08/07/2020	08/07/20 20:14	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:14	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 20:14	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:14	
Benzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:14	
Bromobenzene	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 20:14	
Bromodichloromethane	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 20:14	
Bromoform	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 20:14	
Bromomethane	ND	0.50	0.40	1	B0H0100	08/07/2020	08/07/20 20:14	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:14	
Chlorobenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:14	
Chloroethane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 20:14	
Chloroform	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:14	
Chloromethane	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 20:14	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 20:14	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:14	
Dibromochloromethane	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 20:14	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: TB-080620A

Lab ID: 2001862-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0100	08/07/2020	08/07/20 20:14	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 20:14	
Ethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:14	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 20:14	
Isopropylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:14	
m,p-Xylene	ND	1.0	0.19	1	B0H0100	08/07/2020	08/07/20 20:14	
Methylene chloride	ND	1.0	0.71	1	B0H0100	08/07/2020	08/07/20 20:14	
n-Butylbenzene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:14	
n-Propylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:14	
Naphthalene	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 20:14	
o-Xylene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:14	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:14	
Styrene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:14	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:14	
Tetrachloroethene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:14	
Toluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 20:14	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:14	
Trichloroethene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:14	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0100	08/07/2020	08/07/20 20:14	
Vinyl chloride	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:14	
Surrogate: 1,2-Dichloroethane-d4	*119 %*	*59 - 158*			B0H0100	08/07/2020	*08/07/20 20:14*	
Surrogate: 4-Bromofluorobenzene	*88.8 %*	*71 - 127*			B0H0100	08/07/2020	*08/07/20 20:14*	
Surrogate: Dibromofluoromethane	*113 %*	*66 - 147*			B0H0100	08/07/2020	*08/07/20 20:14*	
Surrogate: Toluene-d8	*97.6 %*	*77 - 138*			B0H0100	08/07/2020	*08/07/20 20:14*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Client Sample ID: MW-34C

Lab ID: 2001862-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:35	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 20:35	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0100	08/07/2020	08/07/20 20:35	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0100	08/07/2020	08/07/20 20:35	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:35	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:35	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:35	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0100	08/07/2020	08/07/20 20:35	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 20:35	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 20:35	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 20:35	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 20:35	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0100	08/07/2020	08/07/20 20:35	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 20:35	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 20:35	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 20:35	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:35	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 20:35	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 20:35	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0100	08/07/2020	08/07/20 20:35	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0100	08/07/2020	08/07/20 20:35	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:35	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 20:35	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:35	
Benzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:35	
Bromobenzene	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 20:35	
Bromodichloromethane	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 20:35	
Bromoform	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 20:35	
Bromomethane	ND	0.50	0.40	1	B0H0100	08/07/2020	08/07/20 20:35	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:35	
Chlorobenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:35	
Chloroethane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 20:35	
Chloroform	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:35	
Chloromethane	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 20:35	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 20:35	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:35	
Dibromochloromethane	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 20:35	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-34C

Lab ID: 2001862-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0100	08/07/2020	08/07/20 20:35	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 20:35	
Ethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:35	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 20:35	
Isopropylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:35	
m,p-Xylene	ND	1.0	0.19	1	B0H0100	08/07/2020	08/07/20 20:35	
Methylene chloride	ND	1.0	0.71	1	B0H0100	08/07/2020	08/07/20 20:35	
n-Butylbenzene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:35	
n-Propylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:35	
Naphthalene	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 20:35	
o-Xylene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:35	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:35	
Styrene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:35	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:35	
Tetrachloroethene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:35	
Toluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 20:35	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:35	
Trichloroethene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:35	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0100	08/07/2020	08/07/20 20:35	
Vinyl chloride	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:35	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*			B0H0100	08/07/2020	*08/07/20 20:35*	
Surrogate: 4-Bromofluorobenzene	*88.8 %*	*71 - 127*			B0H0100	08/07/2020	*08/07/20 20:35*	
Surrogate: Dibromofluoromethane	*107 %*	*66 - 147*			B0H0100	08/07/2020	*08/07/20 20:35*	
Surrogate: Toluene-d8	*101 %*	*77 - 138*			B0H0100	08/07/2020	*08/07/20 20:35*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-34C

Lab ID: 2001862-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0166	08/12/2020	08/12/20 17:18	
Surrogate: 1,2-Dichlorobenzene-d4	*75.1 %*	*13 - 99*			B0H0166	08/12/2020	*08/12/20 17:18*	
Surrogate: 2-Fluorobiphenyl	*86.8 %*	*8 - 111*			B0H0166	08/12/2020	*08/12/20 17:18*	
Surrogate: 4-Terphenyl-d14	*66.1 %*	*12 - 113*			B0H0166	08/12/2020	*08/12/20 17:18*	
Surrogate: Nitrobenzene-d5	*63.2 %*	*15 - 121*			B0H0166	08/12/2020	*08/12/20 17:18*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Client Sample ID: MW-34B

Lab ID: 2001862-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:44	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 23:44	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0100	08/07/2020	08/07/20 23:44	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0100	08/07/2020	08/07/20 23:44	
1,1-Dichloroethane	**0.55**	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:44	
1,1-Dichloroethene	**54**	0.50	0.13	1	B0H0133	08/11/2020	08/11/20 15:14	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:44	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0100	08/07/2020	08/07/20 23:44	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 23:44	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 23:44	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 23:44	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 23:44	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0100	08/07/2020	08/07/20 23:44	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 23:44	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 23:44	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 23:44	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:44	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 23:44	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 23:44	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0100	08/07/2020	08/07/20 23:44	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0100	08/07/2020	08/07/20 23:44	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:44	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 23:44	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:44	
Benzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:44	
Bromobenzene	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 23:44	
Bromodichloromethane	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 23:44	
Bromoform	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 23:44	
Bromomethane	ND	0.50	0.40	1	B0H0100	08/07/2020	08/07/20 23:44	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:44	
Chlorobenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:44	
Chloroethane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 23:44	
Chloroform	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:44	
Chloromethane	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 23:44	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 23:44	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:44	
Dibromochloromethane	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 23:44	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Client Sample ID: MW-34B

Lab ID: 2001862-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0100	08/07/2020	08/07/20 23:44	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 23:44	
Ethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:44	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 23:44	
Isopropylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:44	
m,p-Xylene	ND	1.0	0.19	1	B0H0100	08/07/2020	08/07/20 23:44	
Methylene chloride	ND	1.0	0.71	1	B0H0100	08/07/2020	08/07/20 23:44	
n-Butylbenzene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:44	
n-Propylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:44	
Naphthalene	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 23:44	
o-Xylene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:44	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:44	
Styrene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:44	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:44	
Tetrachloroethene	**0.17**	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:44	J
Toluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 23:44	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:44	
Trichloroethene	**0.21**	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:44	J
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0100	08/07/2020	08/07/20 23:44	
Vinyl chloride	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:44	
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*			B0H0133	08/11/2020	*08/11/20 15:14*	
Surrogate: 1,2-Dichloroethane-d4	*120 %*	*59 - 158*			B0H0100	08/07/2020	*08/07/20 23:44*	
Surrogate: 4-Bromofluorobenzene	*87.9 %*	*71 - 127*			B0H0133	08/11/2020	*08/11/20 15:14*	
Surrogate: 4-Bromofluorobenzene	*89.7 %*	*71 - 127*			B0H0100	08/07/2020	*08/07/20 23:44*	
Surrogate: Dibromofluoromethane	*115 %*	*66 - 147*			B0H0133	08/11/2020	*08/11/20 15:14*	
Surrogate: Dibromofluoromethane	*117 %*	*66 - 147*			B0H0100	08/07/2020	*08/07/20 23:44*	
Surrogate: Toluene-d8	*101 %*	*77 - 138*			B0H0100	08/07/2020	*08/07/20 23:44*	
Surrogate: Toluene-d8	*102 %*	*77 - 138*			B0H0133	08/11/2020	*08/11/20 15:14*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-34B

Lab ID: 2001862-03

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**13**	2.0	1	B0H0167	08/12/2020	08/12/20 18:07	
Surrogate: 1,2-Dichlorobenzene-d4	*49.9 %*		*17 - 119*		B0H0167	08/12/2020	*08/12/20 18:07*	
Surrogate: 2-Fluorobiphenyl	*59.3 %*		*10 - 133*		B0H0167	08/12/2020	*08/12/20 18:07*	
Surrogate: 4-Terphenyl-d14	*72.8 %*		*5 - 139*		B0H0167	08/12/2020	*08/12/20 18:07*	
Surrogate: Nitrobenzene-d5	*53.5 %*		*13 - 150*		B0H0167	08/12/2020	*08/12/20 18:07*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Client Sample ID: MW-41

Lab ID: 2001862-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:56	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 20:56	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0100	08/07/2020	08/07/20 20:56	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0100	08/07/2020	08/07/20 20:56	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:56	
1,1-Dichloroethene	**1.1**	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:56	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:56	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0100	08/07/2020	08/07/20 20:56	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 20:56	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 20:56	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 20:56	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 20:56	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0100	08/07/2020	08/07/20 20:56	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 20:56	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 20:56	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 20:56	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:56	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 20:56	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 20:56	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0100	08/07/2020	08/07/20 20:56	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0100	08/07/2020	08/07/20 20:56	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:56	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 20:56	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:56	
Benzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:56	
Bromobenzene	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 20:56	
Bromodichloromethane	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 20:56	
Bromoform	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 20:56	
Bromomethane	ND	0.50	0.40	1	B0H0100	08/07/2020	08/07/20 20:56	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:56	
Chlorobenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:56	
Chloroethane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 20:56	
Chloroform	**0.73**	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:56	
Chloromethane	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 20:56	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 20:56	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:56	
Dibromochloromethane	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 20:56	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-41

Lab ID: 2001862-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0100	08/07/2020	08/07/20 20:56	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 20:56	
Ethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:56	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 20:56	
Isopropylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:56	
m,p-Xylene	ND	1.0	0.19	1	B0H0100	08/07/2020	08/07/20 20:56	
Methylene chloride	ND	1.0	0.71	1	B0H0100	08/07/2020	08/07/20 20:56	
n-Butylbenzene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 20:56	
n-Propylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:56	
Naphthalene	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 20:56	
o-Xylene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:56	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:56	
Styrene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:56	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:56	
Tetrachloroethene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:56	
Toluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 20:56	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 20:56	
Trichloroethene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 20:56	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0100	08/07/2020	08/07/20 20:56	
Vinyl chloride	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 20:56	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*			B0H0100	08/07/2020	*08/07/20 20:56*	
Surrogate: 4-Bromofluorobenzene	*92.0 %*	*71 - 127*			B0H0100	08/07/2020	*08/07/20 20:56*	
Surrogate: Dibromofluoromethane	*109 %*	*66 - 147*			B0H0100	08/07/2020	*08/07/20 20:56*	
Surrogate: Toluene-d8	*101 %*	*77 - 138*			B0H0100	08/07/2020	*08/07/20 20:56*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-41

Lab ID: 2001862-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**0.24**	0.20	0.05	1	B0H0166	08/12/2020	08/12/20 17:45	
Surrogate: 1,2-Dichlorobenzene-d4	*76.3 %*		*13 - 99*		B0H0166	08/12/2020	*08/12/20 17:45*	
Surrogate: 2-Fluorobiphenyl	*86.1 %*		*8 - 111*		B0H0166	08/12/2020	*08/12/20 17:45*	
Surrogate: 4-Terphenyl-d14	*55.9 %*		*12 - 113*		B0H0166	08/12/2020	*08/12/20 17:45*	
Surrogate: Nitrobenzene-d5	*63.6 %*		*15 - 121*		B0H0166	08/12/2020	*08/12/20 17:45*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-30A

Lab ID: 2001862-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 21:17	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 21:17	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0100	08/07/2020	08/07/20 21:17	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0100	08/07/2020	08/07/20 21:17	
1,1-Dichloroethane	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 21:17	
1,1-Dichloroethene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:17	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:17	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0100	08/07/2020	08/07/20 21:17	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 21:17	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 21:17	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 21:17	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 21:17	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0100	08/07/2020	08/07/20 21:17	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 21:17	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 21:17	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 21:17	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:17	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 21:17	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 21:17	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0100	08/07/2020	08/07/20 21:17	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0100	08/07/2020	08/07/20 21:17	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 21:17	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 21:17	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 21:17	
Benzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:17	
Bromobenzene	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 21:17	
Bromodichloromethane	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 21:17	
Bromoform	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 21:17	
Bromomethane	ND	0.50	0.40	1	B0H0100	08/07/2020	08/07/20 21:17	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 21:17	
Chlorobenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:17	
Chloroethane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 21:17	
Chloroform	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 21:17	
Chloromethane	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 21:17	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 21:17	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:17	
Dibromochloromethane	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 21:17	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-30A

Lab ID: 2001862-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0100	08/07/2020	08/07/20 21:17	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 21:17	
Ethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:17	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 21:17	
Isopropylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 21:17	
m,p-Xylene	ND	1.0	0.19	1	B0H0100	08/07/2020	08/07/20 21:17	
Methylene chloride	ND	1.0	0.71	1	B0H0100	08/07/2020	08/07/20 21:17	
n-Butylbenzene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 21:17	
n-Propylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 21:17	
Naphthalene	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 21:17	
o-Xylene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:17	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 21:17	
Styrene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:17	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 21:17	
Tetrachloroethene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 21:17	
Toluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 21:17	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 21:17	
Trichloroethene	**0.36**	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 21:17	J
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0100	08/07/2020	08/07/20 21:17	
Vinyl chloride	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:17	
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*			B0H0100	08/07/2020	*08/07/20 21:17*	
Surrogate: 4-Bromofluorobenzene	*89.1 %*	*71 - 127*			B0H0100	08/07/2020	*08/07/20 21:17*	
Surrogate: Dibromofluoromethane	*108 %*	*66 - 147*			B0H0100	08/07/2020	*08/07/20 21:17*	
Surrogate: Toluene-d8	*97.2 %*	*77 - 138*			B0H0100	08/07/2020	*08/07/20 21:17*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-30A

Lab ID: 2001862-05

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	0.05	1	B0H0166	08/12/2020	08/12/20 18:12	
Surrogate: 1,2-Dichlorobenzene-d4	*64.6 %*		*13 - 99*		B0H0166	08/12/2020	*08/12/20 18:12*	
Surrogate: 2-Fluorobiphenyl	*68.7 %*		*8 - 111*		B0H0166	08/12/2020	*08/12/20 18:12*	
Surrogate: 4-Terphenyl-d14	*54.6 %*		*12 - 113*		B0H0166	08/12/2020	*08/12/20 18:12*	
Surrogate: Nitrobenzene-d5	*53.6 %*		*15 - 121*		B0H0166	08/12/2020	*08/12/20 18:12*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Client Sample ID: MW-31

Lab ID: 2001862-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:02	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 23:02	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0100	08/07/2020	08/07/20 23:02	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0100	08/07/2020	08/07/20 23:02	
1,1-Dichloroethane	**1.2**	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:02	
1,1-Dichloroethene	**150**	2.5	0.66	5	B0H0133	08/11/2020	08/11/20 15:56	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:02	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0100	08/07/2020	08/07/20 23:02	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 23:02	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 23:02	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 23:02	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 23:02	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0100	08/07/2020	08/07/20 23:02	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 23:02	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 23:02	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 23:02	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:02	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 23:02	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 23:02	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0100	08/07/2020	08/07/20 23:02	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0100	08/07/2020	08/07/20 23:02	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:02	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 23:02	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:02	
Benzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:02	
Bromobenzene	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 23:02	
Bromodichloromethane	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 23:02	
Bromoform	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 23:02	
Bromomethane	ND	0.50	0.40	1	B0H0100	08/07/2020	08/07/20 23:02	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:02	
Chlorobenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:02	
Chloroethane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 23:02	
Chloroform	**0.15**	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:02	J
Chloromethane	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 23:02	
cis-1,2-Dichloroethene	**0.30**	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 23:02	J
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:02	
Dibromochloromethane	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 23:02	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-31

Lab ID: 2001862-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0100	08/07/2020	08/07/20 23:02	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 23:02	
Ethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:02	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 23:02	
Isopropylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:02	
m,p-Xylene	ND	1.0	0.19	1	B0H0100	08/07/2020	08/07/20 23:02	
Methylene chloride	ND	1.0	0.71	1	B0H0100	08/07/2020	08/07/20 23:02	
n-Butylbenzene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:02	
n-Propylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:02	
Naphthalene	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 23:02	
o-Xylene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:02	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:02	
Styrene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:02	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:02	
Tetrachloroethene	**0.19**	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:02	J
Toluene	**0.21**	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 23:02	J
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:02	
Trichloroethene	**6.7**	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:02	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0100	08/07/2020	08/07/20 23:02	
Vinyl chloride	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:02	
Surrogate: 1,2-Dichloroethane-d4	*111 %*	*59 - 158*			B0H0100	08/07/2020	*08/07/20 23:02*	
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*			B0H0133	08/11/2020	*08/11/20 15:56*	
Surrogate: 4-Bromofluorobenzene	*88.3 %*	*71 - 127*			B0H0133	08/11/2020	*08/11/20 15:56*	
Surrogate: 4-Bromofluorobenzene	*91.0 %*	*71 - 127*			B0H0100	08/07/2020	*08/07/20 23:02*	
Surrogate: Dibromofluoromethane	*106 %*	*66 - 147*			B0H0133	08/11/2020	*08/11/20 15:56*	
Surrogate: Dibromofluoromethane	*108 %*	*66 - 147*			B0H0100	08/07/2020	*08/07/20 23:02*	
Surrogate: Toluene-d8	*97.4 %*	*77 - 138*			B0H0100	08/07/2020	*08/07/20 23:02*	
Surrogate: Toluene-d8	*103 %*	*77 - 138*			B0H0133	08/11/2020	*08/11/20 15:56*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-31

Lab ID: 2001862-06

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**6.6**	0.20	0.05	1	B0H0166	08/12/2020	08/12/20 18:39	
Surrogate: 1,2-Dichlorobenzene-d4	*86.5 %*		*13 - 99*		B0H0166	08/12/2020	*08/12/20 18:39*	
Surrogate: 2-Fluorobiphenyl	*98.9 %*		*8 - 111*		B0H0166	08/12/2020	*08/12/20 18:39*	
Surrogate: 4-Terphenyl-d14	*54.7 %*		*12 - 113*		B0H0166	08/12/2020	*08/12/20 18:39*	
Surrogate: Nitrobenzene-d5	*83.3 %*		*15 - 121*		B0H0166	08/12/2020	*08/12/20 18:39*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-3100

Lab ID: 2001862-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:23	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 23:23	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0100	08/07/2020	08/07/20 23:23	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0100	08/07/2020	08/07/20 23:23	
1,1-Dichloroethane	**1.2**	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:23	
1,1-Dichloroethene	**170**	2.5	0.66	5	B0H0133	08/11/2020	08/11/20 16:17	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:23	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0100	08/07/2020	08/07/20 23:23	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 23:23	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 23:23	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 23:23	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 23:23	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0100	08/07/2020	08/07/20 23:23	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 23:23	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 23:23	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 23:23	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:23	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 23:23	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 23:23	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0100	08/07/2020	08/07/20 23:23	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0100	08/07/2020	08/07/20 23:23	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:23	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 23:23	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:23	
Benzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:23	
Bromobenzene	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 23:23	
Bromodichloromethane	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 23:23	
Bromoform	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 23:23	
Bromomethane	ND	0.50	0.40	1	B0H0100	08/07/2020	08/07/20 23:23	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:23	
Chlorobenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:23	
Chloroethane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 23:23	
Chloroform	**0.16**	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:23	J
Chloromethane	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 23:23	
cis-1,2-Dichloroethene	**0.31**	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 23:23	J
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:23	
Dibromochloromethane	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 23:23	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-3100

Lab ID: 2001862-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0100	08/07/2020	08/07/20 23:23	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 23:23	
Ethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:23	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 23:23	
Isopropylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:23	
m,p-Xylene	ND	1.0	0.19	1	B0H0100	08/07/2020	08/07/20 23:23	
Methylene chloride	ND	1.0	0.71	1	B0H0100	08/07/2020	08/07/20 23:23	
n-Butylbenzene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 23:23	
n-Propylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:23	
Naphthalene	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 23:23	
o-Xylene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:23	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:23	
Styrene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:23	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:23	
Tetrachloroethene	**0.11**	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:23	J
Toluene	**0.38**	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 23:23	J
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 23:23	
Trichloroethene	**6.5**	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 23:23	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0100	08/07/2020	08/07/20 23:23	
Vinyl chloride	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 23:23	
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*			B0H0100	08/07/2020	*08/07/20 23:23*	
Surrogate: 1,2-Dichloroethane-d4	*115 %*	*59 - 158*			B0H0133	08/11/2020	*08/11/20 16:17*	
Surrogate: 4-Bromofluorobenzene	*86.4 %*	*71 - 127*			B0H0133	08/11/2020	*08/11/20 16:17*	
Surrogate: 4-Bromofluorobenzene	*88.5 %*	*71 - 127*			B0H0100	08/07/2020	*08/07/20 23:23*	
Surrogate: Dibromofluoromethane	*111 %*	*66 - 147*			B0H0100	08/07/2020	*08/07/20 23:23*	
Surrogate: Dibromofluoromethane	*115 %*	*66 - 147*			B0H0133	08/11/2020	*08/11/20 16:17*	
Surrogate: Toluene-d8	*99.9 %*	*77 - 138*			B0H0133	08/11/2020	*08/11/20 16:17*	
Surrogate: Toluene-d8	*102 %*	*77 - 138*			B0H0100	08/07/2020	*08/07/20 23:23*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-3100

Lab ID: 2001862-07

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**6.3**	0.20	0.05	1	B0H0166	08/12/2020	08/12/20 19:06	
Surrogate: 1,2-Dichlorobenzene-d4	*90.2 %*	*13 - 99*			B0H0166	08/12/2020	*08/12/20 19:06*	
Surrogate: 2-Fluorobiphenyl	*106 %*	*8 - 111*			B0H0166	08/12/2020	*08/12/20 19:06*	
Surrogate: 4-Terphenyl-d14	*57.7 %*	*12 - 113*			B0H0166	08/12/2020	*08/12/20 19:06*	
Surrogate: Nitrobenzene-d5	*85.5 %*	*15 - 121*			B0H0166	08/12/2020	*08/12/20 19:06*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-30B

Lab ID: 2001862-08

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 21:59	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 21:59	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0100	08/07/2020	08/07/20 21:59	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0100	08/07/2020	08/07/20 21:59	
1,1-Dichloroethane	**0.15**	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 21:59	J
1,1-Dichloroethene	**20**	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:59	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:59	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0100	08/07/2020	08/07/20 21:59	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 21:59	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 21:59	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 21:59	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 21:59	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0100	08/07/2020	08/07/20 21:59	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 21:59	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 21:59	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 21:59	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:59	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 21:59	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 21:59	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0100	08/07/2020	08/07/20 21:59	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0100	08/07/2020	08/07/20 21:59	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 21:59	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 21:59	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 21:59	
Benzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:59	
Bromobenzene	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 21:59	
Bromodichloromethane	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 21:59	
Bromoform	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 21:59	
Bromomethane	ND	0.50	0.40	1	B0H0100	08/07/2020	08/07/20 21:59	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 21:59	
Chlorobenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:59	
Chloroethane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 21:59	
Chloroform	**0.40**	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 21:59	J
Chloromethane	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 21:59	
cis-1,2-Dichloroethene	**5.0**	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 21:59	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:59	
Dibromochloromethane	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 21:59	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-30B

Lab ID: 2001862-08

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0100	08/07/2020	08/07/20 21:59	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 21:59	
Ethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:59	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 21:59	
Isopropylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 21:59	
m,p-Xylene	ND	1.0	0.19	1	B0H0100	08/07/2020	08/07/20 21:59	
Methylene chloride	ND	1.0	0.71	1	B0H0100	08/07/2020	08/07/20 21:59	
n-Butylbenzene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 21:59	
n-Propylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 21:59	
Naphthalene	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 21:59	
o-Xylene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:59	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 21:59	
Styrene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:59	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 21:59	
Tetrachloroethene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 21:59	
Toluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 21:59	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 21:59	
Trichloroethene	**92**	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 21:59	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0100	08/07/2020	08/07/20 21:59	
Vinyl chloride	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 21:59	
Surrogate: 1,2-Dichloroethane-d4	*113 %*	*59 - 158*			B0H0100	08/07/2020	*08/07/20 21:59*	
Surrogate: 4-Bromofluorobenzene	*88.5 %*	*71 - 127*			B0H0100	08/07/2020	*08/07/20 21:59*	
Surrogate: Dibromofluoromethane	*105 %*	*66 - 147*			B0H0100	08/07/2020	*08/07/20 21:59*	
Surrogate: Toluene-d8	*101 %*	*77 - 138*			B0H0100	08/07/2020	*08/07/20 21:59*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-30B

Lab ID: 2001862-08

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	**0.38**	0.20	0.05	1	B0H0166	08/12/2020	08/12/20 19:33	
Surrogate: 1,2-Dichlorobenzene-d4	*90.8 %*		*13 - 99*		B0H0166	08/12/2020	*08/12/20 19:33*	
Surrogate: 2-Fluorobiphenyl	*103 %*		*8 - 111*		B0H0166	08/12/2020	*08/12/20 19:33*	
Surrogate: 4-Terphenyl-d14	*64.5 %*		*12 - 113*		B0H0166	08/12/2020	*08/12/20 19:33*	
Surrogate: Nitrobenzene-d5	*86.8 %*		*15 - 121*		B0H0166	08/12/2020	*08/12/20 19:33*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Client Sample ID: MW-21

Lab ID: 2001862-09

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0100	08/08/2020	08/08/20 00:47	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0100	08/08/2020	08/08/20 00:47	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0100	08/08/2020	08/08/20 00:47	
1,1,2-Trichloroethane	**14**	0.50	0.25	1	B0H0100	08/08/2020	08/08/20 00:47	
1,1-Dichloroethane	**29**	0.50	0.09	1	B0H0100	08/08/2020	08/08/20 00:47	
1,1-Dichloroethene	**1600**	25	6.6	50	B0H0100	08/08/2020	08/08/20 00:26	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/08/2020	08/08/20 00:47	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0100	08/08/2020	08/08/20 00:47	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0100	08/08/2020	08/08/20 00:47	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0100	08/08/2020	08/08/20 00:47	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0100	08/08/2020	08/08/20 00:47	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0100	08/08/2020	08/08/20 00:47	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0100	08/08/2020	08/08/20 00:47	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0100	08/08/2020	08/08/20 00:47	
1,2-Dichloroethane	**4.9**	0.50	0.20	1	B0H0100	08/08/2020	08/08/20 00:47	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0100	08/08/2020	08/08/20 00:47	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0100	08/08/2020	08/08/20 00:47	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0100	08/08/2020	08/08/20 00:47	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0100	08/08/2020	08/08/20 00:47	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0100	08/08/2020	08/08/20 00:47	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0100	08/08/2020	08/08/20 00:47	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0100	08/08/2020	08/08/20 00:47	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0100	08/08/2020	08/08/20 00:47	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0100	08/08/2020	08/08/20 00:47	
Benzene	ND	0.50	0.13	1	B0H0100	08/08/2020	08/08/20 00:47	
Bromobenzene	ND	0.50	0.21	1	B0H0100	08/08/2020	08/08/20 00:47	
Bromodichloromethane	ND	0.50	0.14	1	B0H0100	08/08/2020	08/08/20 00:47	
Bromoform	ND	0.50	0.20	1	B0H0100	08/08/2020	08/08/20 00:47	
Bromomethane	ND	0.50	0.40	1	B0H0100	08/08/2020	08/08/20 00:47	
Carbon tetrachloride	**0.60**	0.50	0.09	1	B0H0100	08/08/2020	08/08/20 00:47	
Chlorobenzene	ND	0.50	0.13	1	B0H0100	08/08/2020	08/08/20 00:47	
Chloroethane	ND	0.50	0.15	1	B0H0100	08/08/2020	08/08/20 00:47	
Chloroform	**2.0**	0.50	0.11	1	B0H0100	08/08/2020	08/08/20 00:47	
Chloromethane	ND	0.50	0.12	1	B0H0100	08/08/2020	08/08/20 00:47	
cis-1,2-Dichloroethene	**1.3**	0.50	0.14	1	B0H0100	08/08/2020	08/08/20 00:47	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/08/2020	08/08/20 00:47	
Dibromochloromethane	ND	0.50	0.16	1	B0H0100	08/08/2020	08/08/20 00:47	

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Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Client Sample ID: MW-21

Lab ID: 2001862-09

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0100	08/08/2020	08/08/20 00:47	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0100	08/08/2020	08/08/20 00:47	
Ethylbenzene	ND	0.50	0.13	1	B0H0100	08/08/2020	08/08/20 00:47	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0100	08/08/2020	08/08/20 00:47	
Isopropylbenzene	ND	0.50	0.10	1	B0H0100	08/08/2020	08/08/20 00:47	
m,p-Xylene	ND	1.0	0.19	1	B0H0100	08/08/2020	08/08/20 00:47	
Methylene chloride	ND	1.0	0.71	1	B0H0100	08/08/2020	08/08/20 00:47	
n-Butylbenzene	ND	0.50	0.11	1	B0H0100	08/08/2020	08/08/20 00:47	
n-Propylbenzene	ND	0.50	0.10	1	B0H0100	08/08/2020	08/08/20 00:47	
Naphthalene	ND	0.50	0.41	1	B0H0100	08/08/2020	08/08/20 00:47	
o-Xylene	ND	0.50	0.13	1	B0H0100	08/08/2020	08/08/20 00:47	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/08/2020	08/08/20 00:47	
Styrene	ND	0.50	0.13	1	B0H0100	08/08/2020	08/08/20 00:47	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/08/2020	08/08/20 00:47	
Tetrachloroethene	**4.5**	0.50	0.10	1	B0H0100	08/08/2020	08/08/20 00:47	
Toluene	ND	0.50	0.12	1	B0H0100	08/08/2020	08/08/20 00:47	
trans-1,2-Dichloroethene	**0.20**	0.50	0.09	1	B0H0100	08/08/2020	08/08/20 00:47	J
Trichloroethene	**14**	0.50	0.10	1	B0H0100	08/08/2020	08/08/20 00:47	
Trichlorofluoromethane	**0.31**	0.50	0.23	1	B0H0100	08/08/2020	08/08/20 00:47	J
Vinyl chloride	ND	0.50	0.13	1	B0H0100	08/08/2020	08/08/20 00:47	
Surrogate: 1,2-Dichloroethane-d4	*114 %*		*59 - 158*		B0H0100	08/08/2020	*08/08/20 00:26*	
Surrogate: 1,2-Dichloroethane-d4	*117 %*		*59 - 158*		B0H0100	08/08/2020	*08/08/20 00:47*	
Surrogate: 4-Bromofluorobenzene	*86.5 %*		*71 - 127*		B0H0100	08/08/2020	*08/08/20 00:26*	
Surrogate: 4-Bromofluorobenzene	*91.5 %*		*71 - 127*		B0H0100	08/08/2020	*08/08/20 00:47*	
Surrogate: Dibromofluoromethane	*110 %*		*66 - 147*		B0H0100	08/08/2020	*08/08/20 00:47*	
Surrogate: Dibromofluoromethane	*113 %*		*66 - 147*		B0H0100	08/08/2020	*08/08/20 00:26*	
Surrogate: Toluene-d8	*102 %*		*77 - 138*		B0H0100	08/08/2020	*08/08/20 00:47*	
Surrogate: Toluene-d8	*104 %*		*77 - 138*		B0H0100	08/08/2020	*08/08/20 00:26*	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: MW-21

Lab ID: 2001862-09

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**700**	4.0	2	B0H0167	08/12/2020	08/13/20 12:28	
Surrogate: 1,2-Dichlorobenzene-d4	*72.5 %*		*17 - 119*		B0H0167	08/12/2020	*08/13/20 12:28*	
Surrogate: 2-Fluorobiphenyl	*84.7 %*		*10 - 133*		B0H0167	08/12/2020	*08/13/20 12:28*	
Surrogate: 4-Terphenyl-d14	*86.6 %*		*5 - 139*		B0H0167	08/12/2020	*08/13/20 12:28*	
Surrogate: Nitrobenzene-d5	*79.7 %*		*13 - 150*		B0H0167	08/12/2020	*08/13/20 12:28*	

Certificate of Analysis

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9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Client Sample ID: EW-01

Lab ID: 2001862-10

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 22:41	
1,1,1-Trichloroethane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 22:41	
1,1,2,2-Tetrachloroethane	ND	0.50	0.36	1	B0H0100	08/07/2020	08/07/20 22:41	
1,1,2-Trichloroethane	ND	0.50	0.25	1	B0H0100	08/07/2020	08/07/20 22:41	
1,1-Dichloroethane	**0.38**	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 22:41	J
1,1-Dichloroethene	**25**	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 22:41	
1,1-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 22:41	
1,2,3-Trichloropropane	ND	0.50	0.39	1	B0H0100	08/07/2020	08/07/20 22:41	
1,2,3-Trichlorobenzene	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 22:41	
1,2,4-Trichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 22:41	
1,2,4-Trimethylbenzene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 22:41	
1,2-Dibromo-3-chloropropane	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 22:41	
1,2-Dibromoethane	ND	0.50	0.24	1	B0H0100	08/07/2020	08/07/20 22:41	
1,2-Dichlorobenzene	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 22:41	
1,2-Dichloroethane	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 22:41	
1,2-Dichloropropane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 22:41	
1,3,5-Trimethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 22:41	
1,3-Dichlorobenzene	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 22:41	
1,3-Dichloropropane	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 22:41	
1,4-Dichlorobenzene	ND	0.50	0.17	1	B0H0100	08/07/2020	08/07/20 22:41	
2,2-Dichloropropane	ND	0.50	0.38	1	B0H0100	08/07/2020	08/07/20 22:41	
2-Chlorotoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 22:41	
4-Chlorotoluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 22:41	
4-Isopropyltoluene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 22:41	
Benzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 22:41	
Bromobenzene	ND	0.50	0.21	1	B0H0100	08/07/2020	08/07/20 22:41	
Bromodichloromethane	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 22:41	
Bromoform	ND	0.50	0.20	1	B0H0100	08/07/2020	08/07/20 22:41	
Bromomethane	ND	0.50	0.40	1	B0H0100	08/07/2020	08/07/20 22:41	
Carbon tetrachloride	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 22:41	
Chlorobenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 22:41	
Chloroethane	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 22:41	
Chloroform	**0.12**	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 22:41	J
Chloromethane	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 22:41	
cis-1,2-Dichloroethene	ND	0.50	0.14	1	B0H0100	08/07/2020	08/07/20 22:41	
cis-1,3-Dichloropropene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 22:41	
Dibromochloromethane	ND	0.50	0.16	1	B0H0100	08/07/2020	08/07/20 22:41	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Client Sample ID: EW-01

Lab ID: 2001862-10

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	0.19	1	B0H0100	08/07/2020	08/07/20 22:41	
Dichlorodifluoromethane	ND	0.50	0.18	1	B0H0100	08/07/2020	08/07/20 22:41	
Ethylbenzene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 22:41	
Hexachlorobutadiene	ND	0.50	0.15	1	B0H0100	08/07/2020	08/07/20 22:41	
Isopropylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 22:41	
m,p-Xylene	ND	1.0	0.19	1	B0H0100	08/07/2020	08/07/20 22:41	
Methylene chloride	ND	1.0	0.71	1	B0H0100	08/07/2020	08/07/20 22:41	
n-Butylbenzene	ND	0.50	0.11	1	B0H0100	08/07/2020	08/07/20 22:41	
n-Propylbenzene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 22:41	
Naphthalene	ND	0.50	0.41	1	B0H0100	08/07/2020	08/07/20 22:41	
o-Xylene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 22:41	
sec-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 22:41	
Styrene	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 22:41	
tert-Butylbenzene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 22:41	
Tetrachloroethene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 22:41	
Toluene	ND	0.50	0.12	1	B0H0100	08/07/2020	08/07/20 22:41	
trans-1,2-Dichloroethene	ND	0.50	0.09	1	B0H0100	08/07/2020	08/07/20 22:41	
Trichloroethene	ND	0.50	0.10	1	B0H0100	08/07/2020	08/07/20 22:41	
Trichlorofluoromethane	ND	0.50	0.23	1	B0H0100	08/07/2020	08/07/20 22:41	
Vinyl chloride	ND	0.50	0.13	1	B0H0100	08/07/2020	08/07/20 22:41	
Surrogate: 1,2-Dichloroethane-d4	*116 %*	*59 - 158*			B0H0100	08/07/2020	*08/07/20 22:41*	
Surrogate: 4-Bromofluorobenzene	*87.6 %*	*71 - 127*			B0H0100	08/07/2020	*08/07/20 22:41*	
Surrogate: Dibromofluoromethane	*109 %*	*66 - 147*			B0H0100	08/07/2020	*08/07/20 22:41*	
Surrogate: Toluene-d8	*99.4 %*	*77 - 138*			B0H0100	08/07/2020	*08/07/20 22:41*	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
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Client Sample ID: EW-01

Lab ID: 2001862-10

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**18**	2.0	1	B0H0167	08/12/2020	08/13/20 12:02	
Surrogate: 1,2-Dichlorobenzene-d4	*66.8 %*		*17 - 119*		B0H0167	08/12/2020	*08/13/20 12:02*	
Surrogate: 2-Fluorobiphenyl	*81.4 %*		*10 - 133*		B0H0167	08/12/2020	*08/13/20 12:02*	
Surrogate: 4-Terphenyl-d14	*84.1 %*		*5 - 139*		B0H0167	08/12/2020	*08/13/20 12:02*	
Surrogate: Nitrobenzene-d5	*77.3 %*		*13 - 150*		B0H0167	08/12/2020	*08/13/20 12:02*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
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QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W										
Blank (B0H0100-BLK1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,1,1,2-Tetrachloroethane	ND	0.50	0.11							
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,1-Dichloropropene	ND	0.50	0.13							
1,2,3-Trichloropropane	ND	0.50	0.39							
1,2,3-Trichlorobenzene	ND	0.50	0.18							
1,2,4-Trichlorobenzene	ND	0.50	0.16							
1,2,4-Trimethylbenzene	ND	0.50	0.14							
1,2-Dibromo-3-chloropropane	ND	0.50	0.41							
1,2-Dibromoethane	ND	0.50	0.24							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3,5-Trimethylbenzene	ND	0.50	0.13							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,3-Dichloropropane	ND	0.50	0.21							
1,4-Dichlorobenzene	ND	0.50	0.17							
2,2-Dichloropropane	ND	0.50	0.38							
2-Chlorotoluene	ND	0.50	0.11							
4-Chlorotoluene	ND	0.50	0.12							
4-Isopropyltoluene	ND	0.50	0.11							
Benzene	ND	0.50	0.13							
Bromobenzene	ND	0.50	0.21							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,2-Dichloroethene	ND	0.50	0.14							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Dibromomethane	ND	0.50	0.19							
Dichlorodifluoromethane	ND	0.50	0.18							

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
Blank (B0H0100-BLK1) - Continued					Prepared: 8/7/2020 Analyzed: 8/7/2020					
Ethylbenzene	ND	0.50	0.13							
Hexachlorobutadiene	ND	0.50	0.15							
Isopropylbenzene	ND	0.50	0.10							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
n-Butylbenzene	ND	0.50	0.11							
n-Propylbenzene	ND	0.50	0.10							
Naphthalene	ND	0.50	0.41							
o-Xylene	ND	0.50	0.13							
sec-Butylbenzene	ND	0.50	0.09							
Styrene	ND	0.50	0.13							
tert-Butylbenzene	ND	0.50	0.09							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*27.99*			*25.0000*		*112*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*22.99*			*25.0000*		*92.0*	*71 - 127*			
Surrogate: Dibromofluoromethan	*27.10*			*25.0000*		*108*	*66 - 147*			
Surrogate: Toluene-d8	*24.62*			*25.0000*		*98.5*	*77 - 138*			
LCS (B0H0100-BS1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,1,1,2-Tetrachloroethane	18.9500	0.50	0.11	20.0000		94.8	71 - 133			
1,1,1-Trichloroethane	18.9600	0.50	0.21	20.0000		94.8	62 - 124			
1,1,2,2-Tetrachloroethane	21.1700	0.50	0.36	20.0000		106	50 - 131			
1,1,2-Trichloroethane	18.3500	0.50	0.25	20.0000		91.8	77 - 121			
1,1-Dichloroethane	16.5300	0.50	0.09	20.0000		82.6	52 - 130			
1,1-Dichloroethene	15.2800	0.50	0.13	20.0000		76.4	61 - 136			
1,1-Dichloropropene	17.1400	0.50	0.13	20.0000		85.7	80 - 128			
1,2,3-Trichloropropane	18.4600	0.50	0.39	20.0000		92.3	59 - 126			
1,2,3-Trichlorobenzene	18.6500	0.50	0.18	20.0000		93.2	69 - 138			
1,2,4-Trichlorobenzene	18.5200	0.50	0.16	20.0000		92.6	78 - 125			
1,2,4-Trimethylbenzene	22.0600	0.50	0.14	20.0000		110	70 - 126			
1,2-Dibromo-3-chloropropane	18.4300	0.50	0.41	20.0000		92.2	58 - 127			
1,2-Dibromoethane	18.0800	0.50	0.24	20.0000		90.4	76 - 120			
1,2-Dichlorobenzene	19.1300	0.50	0.20	20.0000		95.6	82 - 117			
1,2-Dichloroethane	18.1300	0.50	0.20	20.0000		90.6	66 - 126			
1,2-Dichloropropane	18.0800	0.50	0.15	20.0000		90.4	70 - 117			
1,3,5-Trimethylbenzene	20.8400	0.50	0.13	20.0000		104	71 - 125			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
LCS (B0H0100-BS1) - Continued					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,3-Dichlorobenzene	18.3600	0.50	0.16	20.0000		91.8	81 - 116			
1,3-Dichloropropane	18.4700	0.50	0.21	20.0000		92.4	69 - 124			
1,4-Dichlorobenzene	18.1800	0.50	0.17	20.0000		90.9	80 - 114			
2,2-Dichloropropane	20.6900	0.50	0.38	20.0000		103	58 - 132			
2-Chlorotoluene	19.8000	0.50	0.11	20.0000		99.0	71 - 119			
4-Chlorotoluene	21.2000	0.50	0.12	20.0000		106	72 - 122			
4-Isopropyltoluene	21.0100	0.50	0.11	20.0000		105	69 - 126			
Benzene	16.9200	0.50	0.13	20.0000		84.6	80 - 116			
Bromobenzene	18.6300	0.50	0.21	20.0000		93.2	77 - 118			
Bromodichloromethane	20.4700	0.50	0.14	20.0000		102	73 - 118			
Bromoform	19.4500	0.50	0.20	20.0000		97.2	65 - 133			
Bromomethane	16.5200	0.50	0.40	20.0000		82.6	7 - 205			
Carbon tetrachloride	17.7700	0.50	0.09	20.0000		88.8	63 - 133			
Chlorobenzene	17.8900	0.50	0.13	20.0000		89.4	86 - 113			
Chloroethane	12.7800	0.50	0.15	20.0000		63.9	66 - 141			L4
Chloroform	18.9000	0.50	0.11	20.0000		94.5	63 - 127			
Chloromethane	13.5400	0.50	0.12	20.0000		67.7	0 - 207			
cis-1,2-Dichloroethene	17.1400	0.50	0.14	20.0000		85.7	64 - 126			
cis-1,3-Dichloropropene	19.4900	0.50	0.13	20.0000		97.4	70 - 141			
Dibromochloromethane	19.7800	0.50	0.16	20.0000		98.9	67 - 135			
Dibromomethane	17.1600	0.50	0.19	20.0000		85.8	74 - 118			
Dichlorodifluoromethane	10.6000	0.50	0.18	20.0000		53.0	14 - 181			
Ethylbenzene	18.9500	0.50	0.13	20.0000		94.8	77 - 118			
Hexachlorobutadiene	19.7700	0.50	0.15	20.0000		98.8	66 - 125			
Isopropylbenzene	19.4000	0.50	0.10	20.0000		97.0	68 - 137			
m,p-Xylene	39.7800	1.0	0.19	40.0000		99.4	78 - 126			
Methylene chloride	18.3300	1.0	0.71	20.0000		91.6	51 - 149			
n-Butylbenzene	21.9300	0.50	0.11	20.0000		110	63 - 127			
n-Propylbenzene	20.7500	0.50	0.10	20.0000		104	69 - 124			
Naphthalene	15.8300	0.50	0.41	20.0000		79.2	60 - 126			
o-Xylene	19.8500	0.50	0.13	20.0000		99.2	79 - 126			
sec-Butylbenzene	20.6000	0.50	0.09	20.0000		103	69 - 124			
Styrene	23.5700	0.50	0.13	20.0000		118	80 - 127			
tert-Butylbenzene	18.8900	0.50	0.09	20.0000		94.4	71 - 124			
Tetrachloroethene	17.0000	0.50	0.10	20.0000		85.0	73 - 129			
Toluene	18.2900	0.50	0.12	20.0000		91.4	78 - 121			
trans-1,2-Dichloroethene	15.4100	0.50	0.09	20.0000		77.0	58 - 141			
Trichloroethene	15.4900	0.50	0.10	20.0000		77.4	73 - 126			
Trichlorofluoromethane	15.8100	0.50	0.23	20.0000		79.0	62 - 146			
Vinyl chloride	13.8500	0.50	0.13	20.0000		69.2	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*26.66*			*25.0000*		*107*	*59 - 158*			

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
LCS (B0H0100-BS1) - Continued					Prepared: 8/7/2020 Analyzed: 8/7/2020					
Surrogate: 4-Bromofluorobenzene	*26.43*			*25.0000*		*106*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.01*			*25.0000*		*100*	*66 - 147*			
Surrogate: Toluene-d8	*26.19*			*25.0000*		*105*	*77 - 138*			
LCS Dup (B0H0100-BSD1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,1,1,2-Tetrachloroethane	19.9000	0.50	0.11	20.0000		99.5	71 - 133	4.89	20	
1,1,1-Trichloroethane	20.0000	0.50	0.21	20.0000		100	62 - 124	5.34	20	
1,1,2,2-Tetrachloroethane	22.6700	0.50	0.36	20.0000		113	50 - 131	6.84	20	
1,1,2-Trichloroethane	18.4700	0.50	0.25	20.0000		92.4	77 - 121	0.652	20	
1,1-Dichloroethane	17.1000	0.50	0.09	20.0000		85.5	52 - 130	3.39	20	
1,1-Dichloroethene	16.5800	0.50	0.13	20.0000		82.9	61 - 136	8.16	20	
1,1-Dichloropropene	19.1300	0.50	0.13	20.0000		95.6	80 - 128	11.0	20	
1,2,3-Trichloropropane	19.9800	0.50	0.39	20.0000		99.9	59 - 126	7.91	20	
1,2,3-Trichlorobenzene	18.2400	0.50	0.18	20.0000		91.2	69 - 138	2.22	20	
1,2,4-Trichlorobenzene	19.1300	0.50	0.16	20.0000		95.6	78 - 125	3.24	20	
1,2,4-Trimethylbenzene	23.4300	0.50	0.14	20.0000		117	70 - 126	6.02	20	
1,2-Dibromo-3-chloropropane	21.7600	0.50	0.41	20.0000		109	58 - 127	16.6	20	
1,2-Dibromoethane	19.1000	0.50	0.24	20.0000		95.5	76 - 120	5.49	20	
1,2-Dichlorobenzene	20.3100	0.50	0.20	20.0000		102	82 - 117	5.98	20	
1,2-Dichloroethane	19.0200	0.50	0.20	20.0000		95.1	66 - 126	4.79	20	
1,2-Dichloropropane	18.7300	0.50	0.15	20.0000		93.6	70 - 117	3.53	20	
1,3,5-Trimethylbenzene	22.9700	0.50	0.13	20.0000		115	71 - 125	9.72	20	
1,3-Dichlorobenzene	19.9200	0.50	0.16	20.0000		99.6	81 - 116	8.15	20	
1,3-Dichloropropane	19.6500	0.50	0.21	20.0000		98.2	69 - 124	6.19	20	
1,4-Dichlorobenzene	19.1300	0.50	0.17	20.0000		95.6	80 - 114	5.09	20	
2,2-Dichloropropane	22.7300	0.50	0.38	20.0000		114	58 - 132	9.40	20	
2-Chlorotoluene	21.4000	0.50	0.11	20.0000		107	71 - 119	7.77	20	
4-Chlorotoluene	23.1200	0.50	0.12	20.0000		116	72 - 122	8.66	20	
4-Isopropyltoluene	22.6200	0.50	0.11	20.0000		113	69 - 126	7.38	20	
Benzene	17.6700	0.50	0.13	20.0000		88.4	80 - 116	4.34	20	
Bromobenzene	20.5300	0.50	0.21	20.0000		103	77 - 118	9.70	20	
Bromodichloromethane	21.7500	0.50	0.14	20.0000		109	73 - 118	6.06	20	
Bromoform	21.0000	0.50	0.20	20.0000		105	65 - 133	7.66	20	
Bromomethane	14.1600	0.50	0.40	20.0000		70.8	7 - 205	15.4	20	
Carbon tetrachloride	20.3600	0.50	0.09	20.0000		102	63 - 133	13.6	20	
Chlorobenzene	18.7000	0.50	0.13	20.0000		93.5	86 - 113	4.43	20	
Chloroethane	14.4400	0.50	0.15	20.0000		72.2	66 - 141	12.2	20	
Chloroform	20.5600	0.50	0.11	20.0000		103	63 - 127	8.41	20	
Chloromethane	17.8000	0.50	0.12	20.0000		89.0	0 - 207	27.2	20	R
cis-1,2-Dichloroethene	18.7000	0.50	0.14	20.0000		93.5	64 - 126	8.71	20	
cis-1,3-Dichloropropene	19.9100	0.50	0.13	20.0000		99.6	70 - 141	2.13	20	
Dibromochloromethane	20.7100	0.50	0.16	20.0000		104	67 - 135	4.59	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
LCS Dup (B0H0100-BSD1) - Continued					Prepared: 8/7/2020 Analyzed: 8/7/2020					
Dibromomethane	17.6300	0.50	0.19	20.0000		88.2	74 - 118	2.70	20	
Dichlorodifluoromethane	11.7800	0.50	0.18	20.0000		58.9	14 - 181	10.5	20	
Ethylbenzene	20.0900	0.50	0.13	20.0000		100	77 - 118	5.84	20	
Hexachlorobutadiene	20.7600	0.50	0.15	20.0000		104	66 - 125	4.89	20	
Isopropylbenzene	21.9000	0.50	0.10	20.0000		110	68 - 137	12.1	20	
m,p-Xylene	42.6000	1.0	0.19	40.0000		106	78 - 126	6.85	20	
Methylene chloride	19.8000	1.0	0.71	20.0000		99.0	51 - 149	7.71	20	
n-Butylbenzene	22.8600	0.50	0.11	20.0000		114	63 - 127	4.15	20	
n-Propylbenzene	22.5000	0.50	0.10	20.0000		112	69 - 124	8.09	20	
Naphthalene	16.9300	0.50	0.41	20.0000		84.6	60 - 126	6.72	20	
o-Xylene	21.2300	0.50	0.13	20.0000		106	79 - 126	6.72	20	
sec-Butylbenzene	22.7200	0.50	0.09	20.0000		114	69 - 124	9.79	20	
Styrene	24.9200	0.50	0.13	20.0000		125	80 - 127	5.57	20	
tert-Butylbenzene	21.5600	0.50	0.09	20.0000		108	71 - 124	13.2	20	
Tetrachloroethene	17.8400	0.50	0.10	20.0000		89.2	73 - 129	4.82	20	
Toluene	18.7600	0.50	0.12	20.0000		93.8	78 - 121	2.54	20	
trans-1,2-Dichloroethene	16.3100	0.50	0.09	20.0000		81.6	58 - 141	5.67	20	
Trichloroethene	16.5800	0.50	0.10	20.0000		82.9	73 - 126	6.80	20	
Trichlorofluoromethane	18.6000	0.50	0.23	20.0000		93.0	62 - 146	16.2	20	
Vinyl chloride	16.0200	0.50	0.13	20.0000		80.1	61 - 137	14.5	20	
Surrogate: 1,2-Dichloroethane-d4	*26.72*			*25.0000*		*107*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.53*			*25.0000*		*102*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.50*			*25.0000*		*102*	*66 - 147*			
Surrogate: Toluene-d8	*25.70*			*25.0000*		*103*	*77 - 138*			
Matrix Spike (B0H0100-MS1)			**Source: 2001860-04**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,1,1,2-Tetrachloroethane	21.6800	0.50	0.11	20.0000	ND	108	71 - 133			
1,1,1-Trichloroethane	24.2500	0.50	0.21	20.0000	ND	121	62 - 124			
1,1,2,2-Tetrachloroethane	24.5100	0.50	0.36	20.0000	ND	123	50 - 131			
1,1,2-Trichloroethane	20.0100	0.50	0.25	20.0000	ND	100	77 - 121			
1,1-Dichloroethane	20.0500	0.50	0.09	20.0000	0.220000	99.2	52 - 130			
1,1-Dichloroethene	18.8300	0.50	0.13	20.0000	ND	94.2	61 - 136			
1,1-Dichloropropene	21.5400	0.50	0.13	20.0000	ND	108	80 - 128			
1,2,3-Trichloropropane	22.8500	0.50	0.39	20.0000	ND	114	59 - 126			
1,2,3-Trichlorobenzene	20.7500	0.50	0.18	20.0000	ND	104	69 - 138			
1,2,4-Trichlorobenzene	20.6800	0.50	0.16	20.0000	ND	103	78 - 125			
1,2,4-Trimethylbenzene	15.1100	0.50	0.14	20.0000	ND	75.6	70 - 126			
1,2-Dibromo-3-chloropropane	22.8900	0.50	0.41	20.0000	ND	114	58 - 127			
1,2-Dibromoethane	19.8000	0.50	0.24	20.0000	ND	99.0	76 - 120			
1,2-Dichlorobenzene	23.1200	0.50	0.20	20.0000	ND	116	82 - 117			
1,2-Dichloroethane	20.4300	0.50	0.20	20.0000	ND	102	66 - 126			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
Matrix Spike (B0H0100-MS1) - Continued			**Source: 2001860-04**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,2-Dichloropropane	21.3300	0.50	0.15	20.0000	ND	107	70 - 117			
1,3,5-Trimethylbenzene	22.4800	0.50	0.13	20.0000	ND	112	71 - 125			
1,3-Dichlorobenzene	22.3900	0.50	0.16	20.0000	ND	112	81 - 116			
1,3-Dichloropropane	21.0600	0.50	0.21	20.0000	ND	105	69 - 124			
1,4-Dichlorobenzene	21.1800	0.50	0.17	20.0000	ND	106	80 - 114			
2,2-Dichloropropane	25.6000	0.50	0.38	20.0000	ND	128	58 - 132			
2-Chlorotoluene	23.8300	0.50	0.11	20.0000	ND	119	71 - 119			
4-Chlorotoluene	25.1200	0.50	0.12	20.0000	ND	126	72 - 122			M2
4-Isopropyltoluene	23.6100	0.50	0.11	20.0000	ND	118	69 - 126			
Benzene	19.9300	0.50	0.13	20.0000	ND	99.6	80 - 116			
Bromobenzene	21.7000	0.50	0.21	20.0000	ND	108	77 - 118			
Bromodichloromethane	22.4100	0.50	0.14	20.0000	ND	112	73 - 118			
Bromoform	22.2600	0.50	0.20	20.0000	ND	111	65 - 133			
Bromomethane	17.1100	0.50	0.40	20.0000	ND	85.6	7 - 205			
Carbon tetrachloride	23.4700	0.50	0.09	20.0000	ND	117	63 - 133			
Chlorobenzene	20.7600	0.50	0.13	20.0000	ND	104	81 - 115			
Chloroethane	16.0600	0.50	0.15	20.0000	ND	80.3	66 - 141			
Chloroform	22.3200	0.50	0.11	20.0000	0.220000	110	63 - 127			
Chloromethane	19.5800	0.50	0.12	20.0000	ND	97.9	0 - 207			
cis-1,2-Dichloroethene	20.9000	0.50	0.14	20.0000	ND	104	64 - 126			
cis-1,3-Dichloropropene	22.5800	0.50	0.13	20.0000	ND	113	70 - 141			
Dibromochloromethane	22.6600	0.50	0.16	20.0000	ND	113	67 - 135			
Dibromomethane	18.9100	0.50	0.19	20.0000	ND	94.6	74 - 118			
Dichlorodifluoromethane	14.3300	0.50	0.18	20.0000	ND	71.6	14 - 181			
Ethylbenzene	22.7800	0.50	0.13	20.0000	ND	114	77 - 118			
Hexachlorobutadiene	23.8600	0.50	0.15	20.0000	ND	119	66 - 125			
Isopropylbenzene	24.8600	0.50	0.10	20.0000	ND	124	68 - 137			
m,p-Xylene	45.3800	1.0	0.19	40.0000	ND	113	78 - 126			
Methylene chloride	20.1300	1.0	0.71	20.0000	ND	101	51 - 149			
n-Butylbenzene	25.9000	0.50	0.11	20.0000	ND	130	63 - 127			M2
n-Propylbenzene	25.6400	0.50	0.10	20.0000	ND	128	69 - 124			M2
Naphthalene	13.8900	0.50	0.41	20.0000	ND	69.4	60 - 126			
o-Xylene	23.0500	0.50	0.13	20.0000	ND	115	79 - 126			
sec-Butylbenzene	26.3300	0.50	0.09	20.0000	ND	132	69 - 124			M2
Styrene	10.1400	0.50	0.13	20.0000	ND	50.7	80 - 127			M2
tert-Butylbenzene	25.5800	0.50	0.09	20.0000	ND	128	71 - 124			M2
Tetrachloroethene	20.5900	0.50	0.10	20.0000	ND	103	73 - 129			
Toluene	21.2600	0.50	0.12	20.0000	ND	106	78 - 121			
trans-1,2-Dichloroethene	18.7700	0.50	0.09	20.0000	ND	93.8	58 - 141			
Trichloroethene	19.2300	0.50	0.10	20.0000	ND	96.2	73 - 126			
Trichlorofluoromethane	21.6200	0.50	0.23	20.0000	ND	108	62 - 146			
Vinyl chloride	18.4600	0.50	0.13	20.0000	ND	92.3	61 - 137			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
Matrix Spike (B0H0100-MS1) - Continued			**Source: 2001860-04**			Prepared: 8/7/2020 Analyzed: 8/7/2020				
Surrogate: 1,2-Dichloroethane-d4	*26.74*			*25.0000*		*107*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.85*			*25.0000*		*103*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.44*			*25.0000*		*102*	*66 - 147*			
Surrogate: Toluene-d8	*25.28*			*25.0000*		*101*	*77 - 138*			
Matrix Spike Dup (B0H0100-MSD1)			**Source: 2001860-04**			Prepared: 8/7/2020 Analyzed: 8/7/2020				
1,1,1,2-Tetrachloroethane	22.7400	0.50	0.11	20.0000	ND	114	71 - 133	4.77	20	
1,1,1-Trichloroethane	24.4200	0.50	0.21	20.0000	ND	122	62 - 124	0.699	20	
1,1,2,2-Tetrachloroethane	23.9200	0.50	0.36	20.0000	ND	120	50 - 131	2.44	20	
1,1,2-Trichloroethane	18.9000	0.50	0.25	20.0000	ND	94.5	77 - 121	5.71	20	
1,1-Dichloroethane	20.1900	0.50	0.09	20.0000	0.220000	99.8	52 - 130	0.696	20	
1,1-Dichloroethene	18.9800	0.50	0.13	20.0000	ND	94.9	61 - 136	0.793	20	
1,1-Dichloropropene	22.5800	0.50	0.13	20.0000	ND	113	80 - 128	4.71	20	
1,2,3-Trichloropropane	21.1200	0.50	0.39	20.0000	ND	106	59 - 126	7.87	20	
1,2,3-Trichlorobenzene	22.5000	0.50	0.18	20.0000	ND	112	69 - 138	8.09	20	
1,2,4-Trichlorobenzene	22.1100	0.50	0.16	20.0000	ND	111	78 - 125	6.68	20	
1,2,4-Trimethylbenzene	20.3600	0.50	0.14	20.0000	ND	102	70 - 126	29.6	20	R
1,2-Dibromo-3-chloropropane	21.2200	0.50	0.41	20.0000	ND	106	58 - 127	7.57	20	
1,2-Dibromoethane	20.3500	0.50	0.24	20.0000	ND	102	76 - 120	2.74	20	
1,2-Dichlorobenzene	22.6600	0.50	0.20	20.0000	ND	113	82 - 117	2.01	20	
1,2-Dichloroethane	20.2500	0.50	0.20	20.0000	ND	101	66 - 126	0.885	20	
1,2-Dichloropropane	21.4600	0.50	0.15	20.0000	ND	107	70 - 117	0.608	20	
1,3,5-Trimethylbenzene	23.4100	0.50	0.13	20.0000	ND	117	71 - 125	4.05	20	
1,3-Dichlorobenzene	21.8800	0.50	0.16	20.0000	ND	109	81 - 116	2.30	20	
1,3-Dichloropropane	20.7200	0.50	0.21	20.0000	ND	104	69 - 124	1.63	20	
1,4-Dichlorobenzene	21.4400	0.50	0.17	20.0000	ND	107	80 - 114	1.22	20	
2,2-Dichloropropane	26.7800	0.50	0.38	20.0000	ND	134	58 - 132	4.51	20	M2
2-Chlorotoluene	24.4300	0.50	0.11	20.0000	ND	122	71 - 119	2.49	20	M2
4-Chlorotoluene	24.7500	0.50	0.12	20.0000	ND	124	72 - 122	1.48	20	M2
4-Isopropyltoluene	25.2500	0.50	0.11	20.0000	ND	126	69 - 126	6.71	20	
Benzene	20.2200	0.50	0.13	20.0000	ND	101	80 - 116	1.44	20	
Bromobenzene	21.7200	0.50	0.21	20.0000	ND	109	77 - 118	0.0921	20	
Bromodichloromethane	22.8600	0.50	0.14	20.0000	ND	114	73 - 118	1.99	20	
Bromoform	21.0200	0.50	0.20	20.0000	ND	105	65 - 133	5.73	20	
Bromomethane	24.7700	0.50	0.40	20.0000	ND	124	7 - 205	36.6	20	R
Carbon tetrachloride	23.7300	0.50	0.09	20.0000	ND	119	63 - 133	1.10	20	
Chlorobenzene	21.0300	0.50	0.13	20.0000	ND	105	81 - 115	1.29	20	
Chloroethane	16.9200	0.50	0.15	20.0000	ND	84.6	66 - 141	5.22	20	
Chloroform	21.9100	0.50	0.11	20.0000	0.220000	108	63 - 127	1.85	20	
Chloromethane	16.1000	0.50	0.12	20.0000	ND	80.5	0 - 207	19.5	20	
cis-1,2-Dichloroethene	21.3200	0.50	0.14	20.0000	ND	107	64 - 126	1.99	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
Matrix Spike Dup (B0H0100-MSD1) - Continued			**Source: 2001860-04**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
cis-1,3-Dichloropropene	22.7200	0.50	0.13	20.0000	ND	114	70 - 141	0.618	20	
Dibromochloromethane	22.5400	0.50	0.16	20.0000	ND	113	67 - 135	0.531	20	
Dibromomethane	19.0900	0.50	0.19	20.0000	ND	95.4	74 - 118	0.947	20	
Dichlorodifluoromethane	13.5200	0.50	0.18	20.0000	ND	67.6	14 - 181	5.82	20	
Ethylbenzene	23.5700	0.50	0.13	20.0000	ND	118	77 - 118	3.41	20	
Hexachlorobutadiene	23.8400	0.50	0.15	20.0000	ND	119	66 - 125	0.0839	20	
Isopropylbenzene	25.1200	0.50	0.10	20.0000	ND	126	68 - 137	1.04	20	
m,p-Xylene	46.8600	1.0	0.19	40.0000	ND	117	78 - 126	3.21	20	
Methylene chloride	20.3800	1.0	0.71	20.0000	ND	102	51 - 149	1.23	20	
n-Butylbenzene	27.3900	0.50	0.11	20.0000	ND	137	63 - 127	5.59	20	M2
n-Propylbenzene	25.5100	0.50	0.10	20.0000	ND	128	69 - 124	0.508	20	M2
Naphthalene	16.6500	0.50	0.41	20.0000	ND	83.2	60 - 126	18.1	20	
o-Xylene	23.8400	0.50	0.13	20.0000	ND	119	79 - 126	3.37	20	
sec-Butylbenzene	26.5900	0.50	0.09	20.0000	ND	133	69 - 124	0.983	20	M2
Styrene	17.2400	0.50	0.13	20.0000	ND	86.2	80 - 127	51.9	20	R
tert-Butylbenzene	25.2800	0.50	0.09	20.0000	ND	126	71 - 124	1.18	20	M2
Tetrachloroethene	20.1500	0.50	0.10	20.0000	ND	101	73 - 129	2.16	20	
Toluene	21.8100	0.50	0.12	20.0000	ND	109	78 - 121	2.55	20	
trans-1,2-Dichloroethene	20.0300	0.50	0.09	20.0000	ND	100	58 - 141	6.49	20	
Trichloroethene	19.4100	0.50	0.10	20.0000	ND	97.0	73 - 126	0.932	20	
Trichlorofluoromethane	22.4400	0.50	0.23	20.0000	ND	112	62 - 146	3.72	20	
Vinyl chloride	19.3500	0.50	0.13	20.0000	ND	96.8	61 - 137	4.71	20	
Surrogate: 1,2-Dichloroethane-d4	*26.37*			*25.0000*		*105*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*26.03*			*25.0000*		*104*	*71 - 127*			
Surrogate: Dibromofluoromethan	*24.03*			*25.0000*		*96.1*	*66 - 147*			
Surrogate: Toluene-d8	*24.95*			*25.0000*		*99.8*	*77 - 138*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0133 - MSVOA_LL_W										
Blank (B0H0133-BLK1)					Prepared: 8/11/2020 Analyzed: 8/11/2020					
1,1,1,2-Tetrachloroethane	ND	0.50	0.11							
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,1-Dichloropropene	ND	0.50	0.13							
1,2,3-Trichloropropane	ND	0.50	0.39							
1,2,3-Trichlorobenzene	ND	0.50	0.18							
1,2,4-Trichlorobenzene	ND	0.50	0.16							
1,2,4-Trimethylbenzene	ND	0.50	0.14							
1,2-Dibromo-3-chloropropane	ND	0.50	0.41							
1,2-Dibromoethane	ND	0.50	0.24							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3,5-Trimethylbenzene	ND	0.50	0.13							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,3-Dichloropropane	ND	0.50	0.21							
1,4-Dichlorobenzene	ND	0.50	0.17							
2,2-Dichloropropane	ND	0.50	0.38							
2-Chlorotoluene	ND	0.50	0.11							
4-Chlorotoluene	ND	0.50	0.12							
4-Isopropyltoluene	ND	0.50	0.11							
Benzene	ND	0.50	0.13							
Bromobenzene	ND	0.50	0.21							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,2-Dichloroethene	ND	0.50	0.14							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Dibromomethane	ND	0.50	0.19							
Dichlorodifluoromethane	ND	0.50	0.18							
Ethylbenzene	ND	0.50	0.13							
Hexachlorobutadiene	ND	0.50	0.15							

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0133 - MSVOA_LL_W (continued)										
Blank (B0H0133-BLK1) - Continued					Prepared: 8/11/2020 Analyzed: 8/11/2020					
Isopropylbenzene	ND	0.50	0.10							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
n-Butylbenzene	ND	0.50	0.11							
n-Propylbenzene	ND	0.50	0.10							
Naphthalene	ND	0.50	0.41							
o-Xylene	ND	0.50	0.13							
sec-Butylbenzene	ND	0.50	0.09							
Styrene	ND	0.50	0.13							
tert-Butylbenzene	ND	0.50	0.09							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*28.62*			*25.0000*		*114*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*22.45*			*25.0000*		*89.8*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.90*			*25.0000*		*108*	*66 - 147*			
Surrogate: Toluene-d8	*25.62*			*25.0000*		*102*	*77 - 138*			
LCS (B0H0133-BS1)					Prepared: 8/11/2020 Analyzed: 8/11/2020					
1,1,1,2-Tetrachloroethane	17.9900	0.50	0.11	20.0000		90.0	71 - 133			
1,1,1-Trichloroethane	18.4700	0.50	0.21	20.0000		92.4	62 - 124			
1,1,2,2-Tetrachloroethane	21.7300	0.50	0.36	20.0000		109	50 - 131			
1,1,2-Trichloroethane	18.1700	0.50	0.25	20.0000		90.8	77 - 121			
1,1-Dichloroethane	16.7200	0.50	0.09	20.0000		83.6	52 - 130			
1,1-Dichloroethene	14.4600	0.50	0.13	20.0000		72.3	61 - 136			
1,1-Dichloropropene	17.7100	0.50	0.13	20.0000		88.6	80 - 128			
1,2,3-Trichloropropane	18.7600	0.50	0.39	20.0000		93.8	59 - 126			
1,2,3-Trichlorobenzene	18.2800	0.50	0.18	20.0000		91.4	69 - 138			
1,2,4-Trichlorobenzene	18.2400	0.50	0.16	20.0000		91.2	78 - 125			
1,2,4-Trimethylbenzene	21.7200	0.50	0.14	20.0000		109	70 - 126			
1,2-Dibromo-3-chloropropane	20.0800	0.50	0.41	20.0000		100	58 - 127			
1,2-Dibromoethane	17.2100	0.50	0.24	20.0000		86.0	76 - 120			
1,2-Dichlorobenzene	18.9300	0.50	0.20	20.0000		94.6	82 - 117			
1,2-Dichloroethane	16.6100	0.50	0.20	20.0000		83.0	66 - 126			
1,2-Dichloropropane	18.0300	0.50	0.15	20.0000		90.2	70 - 117			
1,3,5-Trimethylbenzene	21.3600	0.50	0.13	20.0000		107	71 - 125			
1,3-Dichlorobenzene	18.9600	0.50	0.16	20.0000		94.8	81 - 116			
1,3-Dichloropropane	19.1100	0.50	0.21	20.0000		95.6	69 - 124			

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Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0133 - MSVOA_LL_W (continued)										
LCS (B0H0133-BS1) - Continued					Prepared: 8/11/2020 Analyzed: 8/11/2020					
1,4-Dichlorobenzene	18.1000	0.50	0.17	20.0000		90.5	80 - 114			
2,2-Dichloropropane	20.8000	0.50	0.38	20.0000		104	58 - 132			
2-Chlorotoluene	20.3400	0.50	0.11	20.0000		102	71 - 119			
4-Chlorotoluene	21.4000	0.50	0.12	20.0000		107	72 - 122			
4-Isopropyltoluene	21.0800	0.50	0.11	20.0000		105	69 - 126			
Benzene	17.2200	0.50	0.13	20.0000		86.1	80 - 116			
Bromobenzene	18.4900	0.50	0.21	20.0000		92.4	77 - 118			
Bromodichloromethane	19.7500	0.50	0.14	20.0000		98.8	73 - 118			
Bromoform	19.1300	0.50	0.20	20.0000		95.6	65 - 133			
Bromomethane	18.4500	0.50	0.40	20.0000		92.2	7 - 205			
Carbon tetrachloride	17.1800	0.50	0.09	20.0000		85.9	63 - 133			
Chlorobenzene	18.0300	0.50	0.13	20.0000		90.2	86 - 113			
Chloroethane	14.1200	0.50	0.15	20.0000		70.6	66 - 141			
Chloroform	19.1400	0.50	0.11	20.0000		95.7	63 - 127			
Chloromethane	14.1400	0.50	0.12	20.0000		70.7	0 - 207			
cis-1,2-Dichloroethene	17.5200	0.50	0.14	20.0000		87.6	64 - 126			
cis-1,3-Dichloropropene	19.2900	0.50	0.13	20.0000		96.4	70 - 141			
Dibromochloromethane	19.7800	0.50	0.16	20.0000		98.9	67 - 135			
Dibromomethane	15.9600	0.50	0.19	20.0000		79.8	74 - 118			
Dichlorodifluoromethane	8.02000	0.50	0.18	20.0000		40.1	14 - 181			
Ethylbenzene	19.2000	0.50	0.13	20.0000		96.0	77 - 118			
Hexachlorobutadiene	20.5000	0.50	0.15	20.0000		102	66 - 125			
Isopropylbenzene	19.6200	0.50	0.10	20.0000		98.1	68 - 137			
m,p-Xylene	40.4100	1.0	0.19	40.0000		101	78 - 126			
Methylene chloride	18.8200	1.0	0.71	20.0000		94.1	51 - 149			
n-Butylbenzene	22.8900	0.50	0.11	20.0000		114	63 - 127			
n-Propylbenzene	21.5200	0.50	0.10	20.0000		108	69 - 124			
Naphthalene	15.5200	0.50	0.41	20.0000		77.6	60 - 126			
o-Xylene	20.1400	0.50	0.13	20.0000		101	79 - 126			
sec-Butylbenzene	21.5800	0.50	0.09	20.0000		108	69 - 124			
Styrene	23.6300	0.50	0.13	20.0000		118	80 - 127			
tert-Butylbenzene	19.9700	0.50	0.09	20.0000		99.8	71 - 124			
Tetrachloroethene	16.1900	0.50	0.10	20.0000		81.0	73 - 129			
Toluene	18.4800	0.50	0.12	20.0000		92.4	78 - 121			
trans-1,2-Dichloroethene	16.2800	0.50	0.09	20.0000		81.4	58 - 141			
Trichloroethene	15.3600	0.50	0.10	20.0000		76.8	73 - 126			
Trichlorofluoromethane	15.9900	0.50	0.23	20.0000		80.0	62 - 146			
Vinyl chloride	14.5200	0.50	0.13	20.0000		72.6	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*26.43*			*25.0000*		*106*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*26.06*			*25.0000*		*104*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.39*			*25.0000*		*106*	*66 - 147*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0133 - MSVOA_LL_W (continued)										
LCS (B0H0133-BS1) - Continued						Prepared: 8/11/2020 Analyzed: 8/11/2020				
Surrogate: Toluene-d8	*26.21*			*25.0000*		*105*	*77 - 138*			
LCS Dup (B0H0133-BSD1)						Prepared: 8/11/2020 Analyzed: 8/11/2020				
1,1,1,2-Tetrachloroethane	19.4600	0.50	0.11	20.0000		97.3	71 - 133	7.85	20	
1,1,1-Trichloroethane	19.3300	0.50	0.21	20.0000		96.6	62 - 124	4.55	20	
1,1,2,2-Tetrachloroethane	24.2600	0.50	0.36	20.0000		121	50 - 131	11.0	20	
1,1,2-Trichloroethane	20.6900	0.50	0.25	20.0000		103	77 - 121	13.0	20	
1,1-Dichloroethane	17.6300	0.50	0.09	20.0000		88.2	52 - 130	5.30	20	
1,1-Dichloroethene	15.8600	0.50	0.13	20.0000		79.3	61 - 136	9.23	20	
1,1-Dichloropropene	18.0500	0.50	0.13	20.0000		90.2	80 - 128	1.90	20	
1,2,3-Trichloropropane	20.5700	0.50	0.39	20.0000		103	59 - 126	9.20	20	
1,2,3-Trichlorobenzene	20.2000	0.50	0.18	20.0000		101	69 - 138	9.98	20	
1,2,4-Trichlorobenzene	19.4800	0.50	0.16	20.0000		97.4	78 - 125	6.57	20	
1,2,4-Trimethylbenzene	22.8300	0.50	0.14	20.0000		114	70 - 126	4.98	20	
1,2-Dibromo-3-chloropropane	21.9400	0.50	0.41	20.0000		110	58 - 127	8.85	20	
1,2-Dibromoethane	20.6400	0.50	0.24	20.0000		103	76 - 120	18.1	20	
1,2-Dichlorobenzene	20.2200	0.50	0.20	20.0000		101	82 - 117	6.59	20	
1,2-Dichloroethane	19.3000	0.50	0.20	20.0000		96.5	66 - 126	15.0	20	
1,2-Dichloropropane	20.5200	0.50	0.15	20.0000		103	70 - 117	12.9	20	
1,3,5-Trimethylbenzene	21.7800	0.50	0.13	20.0000		109	71 - 125	1.95	20	
1,3-Dichlorobenzene	19.1100	0.50	0.16	20.0000		95.6	81 - 116	0.788	20	
1,3-Dichloropropane	20.4100	0.50	0.21	20.0000		102	69 - 124	6.58	20	
1,4-Dichlorobenzene	18.8700	0.50	0.17	20.0000		94.4	80 - 114	4.17	20	
2,2-Dichloropropane	21.9000	0.50	0.38	20.0000		110	58 - 132	5.15	20	
2-Chlorotoluene	21.3200	0.50	0.11	20.0000		107	71 - 119	4.70	20	
4-Chlorotoluene	21.9600	0.50	0.12	20.0000		110	72 - 122	2.58	20	
4-Isopropyltoluene	21.6900	0.50	0.11	20.0000		108	69 - 126	2.85	20	
Benzene	18.4300	0.50	0.13	20.0000		92.2	80 - 116	6.79	20	
Bromobenzene	18.9700	0.50	0.21	20.0000		94.8	77 - 118	2.56	20	
Bromodichloromethane	21.5600	0.50	0.14	20.0000		108	73 - 118	8.76	20	
Bromoform	20.7200	0.50	0.20	20.0000		104	65 - 133	7.98	20	
Bromomethane	18.9400	0.50	0.40	20.0000		94.7	7 - 205	2.62	20	
Carbon tetrachloride	17.4900	0.50	0.09	20.0000		87.4	63 - 133	1.79	20	
Chlorobenzene	19.0200	0.50	0.13	20.0000		95.1	86 - 113	5.34	20	
Chloroethane	14.8900	0.50	0.15	20.0000		74.4	66 - 141	5.31	20	
Chloroform	20.4400	0.50	0.11	20.0000		102	63 - 127	6.57	20	
Chloromethane	15.6100	0.50	0.12	20.0000		78.0	0 - 207	9.88	20	
cis-1,2-Dichloroethene	18.8400	0.50	0.14	20.0000		94.2	64 - 126	7.26	20	
cis-1,3-Dichloropropene	21.8900	0.50	0.13	20.0000		109	70 - 141	12.6	20	
Dibromochloromethane	20.6500	0.50	0.16	20.0000		103	67 - 135	4.30	20	
Dibromomethane	17.7200	0.50	0.19	20.0000		88.6	74 - 118	10.5	20	
Dichlorodifluoromethane	7.70000	0.50	0.18	20.0000		38.5	14 - 181	4.07	20	

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Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0133 - MSVOA_LL_W (continued)										
LCS Dup (B0H0133-BSD1) - Continued					Prepared: 8/11/2020 Analyzed: 8/11/2020					
Ethylbenzene	19.9400	0.50	0.13	20.0000		99.7	77 - 118	3.78	20	
Hexachlorobutadiene	18.6000	0.50	0.15	20.0000		93.0	66 - 125	9.72	20	
Isopropylbenzene	20.6000	0.50	0.10	20.0000		103	68 - 137	4.87	20	
m,p-Xylene	42.1000	1.0	0.19	40.0000		105	78 - 126	4.10	20	
Methylene chloride	21.1600	1.0	0.71	20.0000		106	51 - 149	11.7	20	
n-Butylbenzene	23.0200	0.50	0.11	20.0000		115	63 - 127	0.566	20	
n-Propylbenzene	21.8700	0.50	0.10	20.0000		109	69 - 124	1.61	20	
Naphthalene	17.4600	0.50	0.41	20.0000		87.3	60 - 126	11.8	20	
o-Xylene	21.0200	0.50	0.13	20.0000		105	79 - 126	4.28	20	
sec-Butylbenzene	21.7900	0.50	0.09	20.0000		109	69 - 124	0.968	20	
Styrene	25.2900	0.50	0.13	20.0000		126	80 - 127	6.79	20	
tert-Butylbenzene	19.8400	0.50	0.09	20.0000		99.2	71 - 124	0.653	20	
Tetrachloroethene	16.2800	0.50	0.10	20.0000		81.4	73 - 129	0.554	20	
Toluene	19.4200	0.50	0.12	20.0000		97.1	78 - 121	4.96	20	
trans-1,2-Dichloroethene	16.7600	0.50	0.09	20.0000		83.8	58 - 141	2.91	20	
Trichloroethene	16.8400	0.50	0.10	20.0000		84.2	73 - 126	9.19	20	
Trichlorofluoromethane	16.6300	0.50	0.23	20.0000		83.2	62 - 146	3.92	20	
Vinyl chloride	14.9300	0.50	0.13	20.0000		74.6	61 - 137	2.78	20	
Surrogate: 1,2-Dichloroethane-d4	*27.71*			*25.0000*		*111*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.39*			*25.0000*		*102*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.21*			*25.0000*		*105*	*66 - 147*			
Surrogate: Toluene-d8	*26.34*			*25.0000*		*105*	*77 - 138*			

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Hargis & Associates, Inc.	Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To :	Steve Netto
San Diego , CA 92122	Reported :	08/14/2020

1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0167 - MSSEMI_W										
Blank (B0H0167-BLK1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	ND	2.0	0.84							
Surrogate: 1,2-Dichlorobenzene-d	*58.32*			*100.000*		*58.3*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*71.21*			*100.000*		*71.2*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*77.20*			*100.000*		*77.2*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*71.29*			*100.000*		*71.3*	*13 - 150*			
LCS (B0H0167-BS1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	88.9000	2.0	0.84	100.000		88.9	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*66.44*			*100.000*		*66.4*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*78.65*			*100.000*		*78.6*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*86.70*			*100.000*		*86.7*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*79.93*			*100.000*		*79.9*	*13 - 150*			
LCS Dup (B0H0167-BSD1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	83.5000	2.0	0.84	100.000		83.5	75 - 155	6.26	20	
Surrogate: 1,2-Dichlorobenzene-d	*72.21*			*100.000*		*72.2*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*82.42*			*100.000*		*82.4*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*93.13*			*100.000*		*93.1*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*83.32*			*100.000*		*83.3*	*13 - 150*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/14/2020

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0166 - MSSEMI_W										
Blank (B0H0166-BLK1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	ND	0.20	0.05							
Surrogate: 1,2-Dichlorobenzene-d	*0.8171*			*1.00000*		*81.7*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.9374*			*1.00000*		*93.7*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.8069*			*1.00000*		*80.7*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.7998*			*1.00000*		*80.0*	*15 - 121*			
LCS (B0H0166-BS1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	1.13030	0.20	0.05	1.00000		113	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*0.5484*			*1.00000*		*54.8*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.6912*			*1.00000*		*69.1*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.6347*			*1.00000*		*63.5*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.5644*			*1.00000*		*56.4*	*15 - 121*			
LCS Dup (B0H0166-BSD1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	1.19281	0.20	0.05	1.00000		119	75 - 155	5.38	20	
Surrogate: 1,2-Dichlorobenzene-d	*0.5582*			*1.00000*		*55.8*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.6900*			*1.00000*		*69.0*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.6398*			*1.00000*		*64.0*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.5782*			*1.00000*		*57.8*	*15 - 121*			

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main, 532.30
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/14/2020

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
J	Analyte detected below the Practical Quantitation Limit but above or equal to the Method Detection Limit. Result is an estimated concentration.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 08.06.20
Page 1 of 2

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: A. DONNELLY, R. ADAMS

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	MATRIX: Groundwater	MATRIX: Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	PRESERVATION: NaOH/AlCl3	PRESERVATION: NaOH/Zn	PRESERVATION: Ice	CONTAINERS: 40-ml VOA	CONTAINERS: 1 L Amber	CONTAINERS: 250-ml poly	CONTAINERS: 250-ml Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	ANALYSIS REQUESTED: 1,4 Dioxane 8270 SIM	ANALYSIS REQUESTED: 1,4-Dioxane 8270 MOD	ANALYSIS REQUESTED: CO2 by SM4500	ANALYSIS REQUESTED: Dissolved Sulfide by SM4500 S2-d	ANALYSIS REQUESTED: Total Sulfide by SM-4500 S2-d	Expected Concetration Range (ppb) for VOA's: 0 - 10	10- 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2008862-01	TB-080620A	8/6/20	0830		X	X			X	2				X							X					X			Report J Flags
02	MW-34C		0843	X		X			X	3				X							X					X			
	↓		↓	X					X		1				X											X			
03	MW-34B		0910	X		X			X	3				X								X				X			
	↓		↓	X					X		1					X										X			
04	MW-41		1247	X		X			X	3				X							X					X			
	↓	↓	↓	X					X		1				X											X			

Total number of containers per analysis:

Total No. of Containers:

Relinquished By: / Company	Date / Time	Received By: / Company	Date / Time
A Donnelly / H+A	8/6/20 1705		8/6/20 17:05
Relinquished By: / Company	Date / Time	Received By: / Company	Date / Time
	8/6/20 17:41		8.6.2020 1741

- ✓ No. of containers correct
- ✓ Received in good condition
- ✓ Custody seals secure
- ☐ Conforms to COC document

1.0 Temperature on receipt

Laboratory
ATL
Attn: Tina Nguyen
3257 Walnut Ave
Signal Hill, CA 90755
562-989-4045

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions
- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
- Note applicable preservatives, special instructions, and deviations from typical environmental samples.
- Consult project QA documents for specific instructions.

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 08/06/2020
Page 2 of 2

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: A. Jauregui, D. Seale

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	NaOH/AlCl3	NaOH/Zn	Ice	40-ml VOA	1 L Amber	250-ml poly	250-ml Amber	VOCs by EPA 8260B	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD	CO2 by SM4500	Dissolved Sulfide by SM4500 S2-d	Total Sulfide by SM-4500 S2-d	0 - 10	10- 100	100 - 1,000	>1,000	24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2008062-05	MW-30A	08/06/2020	0921	X		X			X	3	1			X	X					X						X			Report J Flags
06	MW-31		1014	X		X			X	3	1			X	X						X					X			
07	MW-31DD		1019	X		X			X	3	1			X	X						X					X			
08	MW-30B		1240	X		X			X	3	1			X	X							X				X			
09	MW-21		1332	X		X			X	3	1			X	X							X				X			
10	EW-01		1905	X		X			X	3	1			X		X					X					X			
				X					X		1					X										X			

Total number of containers per analysis:

Total No. of Containers:

Relinquished By: / Company	Date / Time	Received By: / Company	Date / Time
aD Mally / H+A	8/6/20 1705	[signature] AK	8/6/20 17:05
[signature] AK	8/6/20 1714		

- ✓ No. of containers correct
- ✓ Received in good condition
- ✓ Custody seals secure
- ✓ Conforms to COC document

1.0 Temperature on receipt

Laboratory
ATL
Attn: Tina Nguyen
3257 Walnut Ave
Signal Hill, CA 90755
562-989-4045

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions
- Fill out form completely and sign only after verified for completeness
- Complete in ballpoint pen. Draw one line through error, initial and date correction
- Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
- Note applicable preservatives, special instructions, and deviations from typical environmental samples.
- Consult project QA documents for specific instructions.

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 570-35321-1
Client Project/Site: Raytheon / 532.30

For:
Hargis + Associates, Inc.
La Jolla Gateway
9171 Towne Centre Drive
Suite 375
San Diego, California 92122

Attn: Steve Netto

Virendra R Patel

Authorized for release by:
8/17/2020 1:20:37 PM

Virendra Patel, Project Manager I
(714)895-5494
Virendra.Patel@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

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Definitions/Glossary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Job ID: 570-35321-1

Laboratory: Eurofins Calscience LLC

Narrative

Job Narrative
570-35321-1

Comments
No additional comments.

Receipt
The samples were received on 8/6/2020 5:30 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.9º C.

GC/MS VOA
Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 570-87676.

Method 8260B: The lot test of the laboratory trip blank water associated with570-35321-B-1 indicated a detection above the method detection limit (MDL) for the following analyte(s): Methylene Chloride. This is a client supplied trip blank.

Method 8260B: The continuing calibration verification (CCV) associated with batch 570-87676 recovered above the upper control limit for Bromomethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

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

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

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

Detection Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Client Sample ID: TB-080620B — Lab Sample ID: 570-35321-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.055	J	1.0	0.043	ug/L	1		8260B	Total/NA

Client Sample ID: MW-31 — Lab Sample ID: 570-35321-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.70	J	2.0	0.50	ug/L	4		8260B	Total/NA
1,1-Dichloroethane	1.2	J	2.0	0.24	ug/L	4		8260B	Total/NA
1,1-Dichloroethene	110		2.0	0.41	ug/L	4		8260B	Total/NA
Chloroform	0.34	J	2.0	0.25	ug/L	4		8260B	Total/NA
Trichloroethene	5.1		2.0	0.41	ug/L	4		8260B	Total/NA
1,4-Dioxane	4.1		0.50	0.18	ug/L	1		8270C SIM ID	Total/NA

This Detection Summary does not include radiochemical test results.

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: TB-080620B
Date Collected: 08/06/20 08:00
Date Received: 08/06/20 17:30

Lab Sample ID: 570-35321-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/13/20 21:40	1
1,1,1-Trichloroethane	ND		0.50	0.084	ug/L			08/13/20 21:40	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.087	ug/L			08/13/20 21:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.13	ug/L			08/13/20 21:40	1
1,1,2-Trichloroethane	ND		0.50	0.069	ug/L			08/13/20 21:40	1
1,1-Dichloroethane	ND		0.50	0.060	ug/L			08/13/20 21:40	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/13/20 21:40	1
1,1-Dichloropropene	ND		0.50	0.070	ug/L			08/13/20 21:40	1
1,2,3-Trichlorobenzene	ND		0.50	0.12	ug/L			08/13/20 21:40	1
1,2,3-Trichloropropane	ND		1.0	0.076	ug/L			08/13/20 21:40	1
1,2,4-Trichlorobenzene	ND		0.50	0.089	ug/L			08/13/20 21:40	1
1,2,4-Trimethylbenzene	ND		0.50	0.068	ug/L			08/13/20 21:40	1
1,2-Dibromo-3-Chloropropane	ND	*	5.0	0.51	ug/L			08/13/20 21:40	1
1,2-Dibromoethane	ND		0.50	0.059	ug/L			08/13/20 21:40	1
1,2-Dichlorobenzene	ND		0.50	0.082	ug/L			08/13/20 21:40	1
1,2-Dichloroethane	ND		0.50	0.075	ug/L			08/13/20 21:40	1
1,2-Dichloropropane	ND		0.50	0.099	ug/L			08/13/20 21:40	1
1,3,5-Trimethylbenzene	ND		0.50	0.079	ug/L			08/13/20 21:40	1
1,3-Dichlorobenzene	ND		0.50	0.098	ug/L			08/13/20 21:40	1
1,3-Dichloropropane	ND		1.0	0.082	ug/L			08/13/20 21:40	1
1,4-Dichlorobenzene	ND		0.50	0.073	ug/L			08/13/20 21:40	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			08/13/20 21:40	1
2-Butanone	ND		5.0	0.46	ug/L			08/13/20 21:40	1
2-Chlorotoluene	ND		0.50	0.058	ug/L			08/13/20 21:40	1
2-Hexanone	ND		10	0.50	ug/L			08/13/20 21:40	1
4-Chlorotoluene	ND		0.50	0.091	ug/L			08/13/20 21:40	1
4-Methyl-2-pentanone	ND		5.0	0.42	ug/L			08/13/20 21:40	1
Acetone	ND		10	4.0	ug/L			08/13/20 21:40	1
Benzene	ND		0.50	0.072	ug/L			08/13/20 21:40	1
Bromobenzene	ND		0.50	0.061	ug/L			08/13/20 21:40	1
Bromochloromethane	ND		1.0	0.082	ug/L			08/13/20 21:40	1
Bromodichloromethane	ND		0.50	0.053	ug/L			08/13/20 21:40	1
Bromoform	ND	*	0.50	0.096	ug/L			08/13/20 21:40	1
Bromomethane	ND		2.0	0.99	ug/L			08/13/20 21:40	1
cis-1,2-Dichloroethene	ND		0.50	0.11	ug/L			08/13/20 21:40	1
cis-1,3-Dichloropropene	ND		0.50	0.096	ug/L			08/13/20 21:40	1
Carbon disulfide	ND		10	0.39	ug/L			08/13/20 21:40	1
Carbon tetrachloride	ND		0.50	0.057	ug/L			08/13/20 21:40	1
Chlorobenzene	ND		0.50	0.088	ug/L			08/13/20 21:40	1
Chloroethane	ND		0.50	0.12	ug/L			08/13/20 21:40	1
Chloroform	ND		0.50	0.062	ug/L			08/13/20 21:40	1
Chloromethane	ND		5.0	2.0	ug/L			08/13/20 21:40	1
Dibromochloromethane	ND		0.50	0.064	ug/L			08/13/20 21:40	1
Dibromomethane	ND		0.50	0.13	ug/L			08/13/20 21:40	1
Dichlorodifluoromethane	ND		1.0	0.099	ug/L			08/13/20 21:40	1
Ethylbenzene	ND		0.50	0.087	ug/L			08/13/20 21:40	1
Isopropylbenzene	ND		0.50	0.077	ug/L			08/13/20 21:40	1
Methylene Chloride	**0.055**	**J**	1.0	0.043	ug/L			08/13/20 21:40	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.067	ug/L			08/13/20 21:40	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TB-080620B
Date Collected: 08/06/20 08:00
Date Received: 08/06/20 17:30

Lab Sample ID: 570-35321-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.097	ug/L			08/13/20 21:40	1
n-Butylbenzene	ND		0.50	0.11	ug/L			08/13/20 21:40	1
N-Propylbenzene	ND		0.50	0.076	ug/L			08/13/20 21:40	1
o-Xylene	ND		0.50	0.086	ug/L			08/13/20 21:40	1
m,p-Xylene	ND		1.0	0.15	ug/L			08/13/20 21:40	1
p-Isopropyltoluene	ND		0.50	0.074	ug/L			08/13/20 21:40	1
sec-Butylbenzene	ND		0.50	0.095	ug/L			08/13/20 21:40	1
Styrene	ND		0.50	0.059	ug/L			08/13/20 21:40	1
trans-1,2-Dichloroethene	ND		0.50	0.082	ug/L			08/13/20 21:40	1
trans-1,3-Dichloropropene	ND		0.50	0.053	ug/L			08/13/20 21:40	1
tert-Butylbenzene	ND		0.50	0.082	ug/L			08/13/20 21:40	1
Tetrachloroethene	ND		0.50	0.24	ug/L			08/13/20 21:40	1
Toluene	ND		0.50	0.093	ug/L			08/13/20 21:40	1
Trichloroethene	ND		0.50	0.10	ug/L			08/13/20 21:40	1
Trichlorofluoromethane	ND		0.50	0.10	ug/L			08/13/20 21:40	1
Vinyl acetate	ND		5.0	0.70	ug/L			08/13/20 21:40	1
Vinyl chloride	ND		0.50	0.078	ug/L			08/13/20 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 128*		*08/13/20 21:40*	*1*
4-Bromofluorobenzene (Surr)	*88*		*68 - 120*		*08/13/20 21:40*	*1*
Dibromofluoromethane	*110*		*80 - 127*		*08/13/20 21:40*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*08/13/20 21:40*	*1*

Client Sample ID: MW-31
Date Collected: 08/06/20 10:14
Date Received: 08/06/20 17:30

Lab Sample ID: 570-35321-2
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.0	0.28	ug/L			08/13/20 22:08	4
1,1,1-Trichloroethane	ND		2.0	0.34	ug/L			08/13/20 22:08	4
1,1,2,2-Tetrachloroethane	ND		2.0	0.35	ug/L			08/13/20 22:08	4
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.70**	**J**	2.0	0.50	ug/L			08/13/20 22:08	4
1,1,2-Trichloroethane	ND		2.0	0.28	ug/L			08/13/20 22:08	4
1,1-Dichloroethane	**1.2**	**J**	2.0	0.24	ug/L			08/13/20 22:08	4
1,1-Dichloroethene	**110**		2.0	0.41	ug/L			08/13/20 22:08	4
1,1-Dichloropropene	ND		2.0	0.28	ug/L			08/13/20 22:08	4
1,2,3-Trichlorobenzene	ND		2.0	0.47	ug/L			08/13/20 22:08	4
1,2,3-Trichloropropane	ND		4.0	0.31	ug/L			08/13/20 22:08	4
1,2,4-Trichlorobenzene	ND		2.0	0.36	ug/L			08/13/20 22:08	4
1,2,4-Trimethylbenzene	ND		2.0	0.27	ug/L			08/13/20 22:08	4
1,2-Dibromo-3-Chloropropane	ND	*	20	2.1	ug/L			08/13/20 22:08	4
1,2-Dibromoethane	ND		2.0	0.24	ug/L			08/13/20 22:08	4
1,2-Dichlorobenzene	ND		2.0	0.33	ug/L			08/13/20 22:08	4
1,2-Dichloroethane	ND		2.0	0.30	ug/L			08/13/20 22:08	4
1,2-Dichloropropane	ND		2.0	0.39	ug/L			08/13/20 22:08	4
1,3,5-Trimethylbenzene	ND		2.0	0.31	ug/L			08/13/20 22:08	4
1,3-Dichlorobenzene	ND		2.0	0.39	ug/L			08/13/20 22:08	4
1,3-Dichloropropane	ND		4.0	0.33	ug/L			08/13/20 22:08	4
1,4-Dichlorobenzene	ND		2.0	0.29	ug/L			08/13/20 22:08	4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: MW-31
Date Collected: 08/06/20 10:14
Date Received: 08/06/20 17:30

Lab Sample ID: 570-35321-2
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		4.0	1.5	ug/L			08/13/20 22:08	4
2-Butanone	ND		20	1.8	ug/L			08/13/20 22:08	4
2-Chlorotoluene	ND		2.0	0.23	ug/L			08/13/20 22:08	4
2-Hexanone	ND		40	2.0	ug/L			08/13/20 22:08	4
4-Chlorotoluene	ND		2.0	0.36	ug/L			08/13/20 22:08	4
4-Methyl-2-pentanone	ND		20	1.7	ug/L			08/13/20 22:08	4
Acetone	ND		40	16	ug/L			08/13/20 22:08	4
Benzene	ND		2.0	0.29	ug/L			08/13/20 22:08	4
Bromobenzene	ND		2.0	0.24	ug/L			08/13/20 22:08	4
Bromochloromethane	ND		4.0	0.33	ug/L			08/13/20 22:08	4
Bromodichloromethane	ND		2.0	0.21	ug/L			08/13/20 22:08	4
Bromoform	ND	*	2.0	0.39	ug/L			08/13/20 22:08	4
Bromomethane	ND		8.0	4.0	ug/L			08/13/20 22:08	4
cis-1,2-Dichloroethene	ND		2.0	0.43	ug/L			08/13/20 22:08	4
cis-1,3-Dichloropropene	ND		2.0	0.38	ug/L			08/13/20 22:08	4
Carbon disulfide	ND		40	1.5	ug/L			08/13/20 22:08	4
Carbon tetrachloride	ND		2.0	0.23	ug/L			08/13/20 22:08	4
Chlorobenzene	ND		2.0	0.35	ug/L			08/13/20 22:08	4
Chloroethane	ND		2.0	0.47	ug/L			08/13/20 22:08	4
Chloroform	**0.34**	**J**	2.0	0.25	ug/L			08/13/20 22:08	4
Chloromethane	ND		20	7.8	ug/L			08/13/20 22:08	4
Dibromochloromethane	ND		2.0	0.25	ug/L			08/13/20 22:08	4
Dibromomethane	ND		2.0	0.50	ug/L			08/13/20 22:08	4
Dichlorodifluoromethane	ND		4.0	0.40	ug/L			08/13/20 22:08	4
Ethylbenzene	ND		2.0	0.35	ug/L			08/13/20 22:08	4
Isopropylbenzene	ND		2.0	0.31	ug/L			08/13/20 22:08	4
Methylene Chloride	ND		4.0	0.17	ug/L			08/13/20 22:08	4
Methyl-t-Butyl Ether (MTBE)	ND		2.0	0.27	ug/L			08/13/20 22:08	4
Naphthalene	ND		4.0	0.39	ug/L			08/13/20 22:08	4
n-Butylbenzene	ND		2.0	0.43	ug/L			08/13/20 22:08	4
N-Propylbenzene	ND		2.0	0.31	ug/L			08/13/20 22:08	4
o-Xylene	ND		2.0	0.34	ug/L			08/13/20 22:08	4
m,p-Xylene	ND		4.0	0.59	ug/L			08/13/20 22:08	4
p-Isopropyltoluene	ND		2.0	0.29	ug/L			08/13/20 22:08	4
sec-Butylbenzene	ND		2.0	0.38	ug/L			08/13/20 22:08	4
Styrene	ND		2.0	0.23	ug/L			08/13/20 22:08	4
trans-1,2-Dichloroethene	ND		2.0	0.33	ug/L			08/13/20 22:08	4
trans-1,3-Dichloropropene	ND		2.0	0.21	ug/L			08/13/20 22:08	4
tert-Butylbenzene	ND		2.0	0.33	ug/L			08/13/20 22:08	4
Tetrachloroethene	ND		2.0	0.97	ug/L			08/13/20 22:08	4
Toluene	ND		2.0	0.37	ug/L			08/13/20 22:08	4
Trichloroethene	**5.1**		2.0	0.41	ug/L			08/13/20 22:08	4
Trichlorofluoromethane	ND		2.0	0.41	ug/L			08/13/20 22:08	4
Vinyl acetate	ND		20	2.8	ug/L			08/13/20 22:08	4
Vinyl chloride	ND		2.0	0.31	ug/L			08/13/20 22:08	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 128*		*08/13/20 22:08*	*4*
4-Bromofluorobenzene (Surr)	*89*		*68 - 120*		*08/13/20 22:08*	*4*
Dibromofluoromethane	*108*		*80 - 127*		*08/13/20 22:08*	*4*

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: MW-31
Date Collected: 08/06/20 10:14
Date Received: 08/06/20 17:30

Lab Sample ID: 570-35321-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	118		80 - 120		08/13/20 22:08	4

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Client Sample ID: MW-31
Date Collected: 08/06/20 10:14
Date Received: 08/06/20 17:30

Lab Sample ID: 570-35321-2
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	4.1		0.50	0.18	ug/L		08/11/20 07:17	08/12/20 11:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*43*		*15 - 150*	*08/11/20 07:17*	*08/12/20 11:13*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*91*		*46 - 128*	*08/11/20 07:17*	*08/12/20 11:13*	*1*

Surrogate Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-128)	(68-120)	(80-127)	(80-120)
570-35321-1	TB-080620B	101	88	110	105
570-35321-2	MW-31	100	89	108	118
LCS 570-87676/3	Lab Control Sample	111	94	106	113
LCSD 570-87676/4	Lab Control Sample Dup	113	110	111	98
MB 570-87676/6	Method Blank	104	118	109	108

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(46-128)
570-35321-2	MW-31	91
570-35321-2 MS	MW-31	99
570-35321-2 MSD	MW-31	98
LCS 570-86928/2-A	Lab Control Sample	106
LCSD 570-86928/3-A	Lab Control Sample Dup	106
MB 570-86928/1-A	Method Blank	91

Surrogate Legend

NBZ = Nitrobenzene-d5

Isotope Dilution Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DXE (15-150)							
570-35321-2	MW-31	43							
570-35321-2 MS	MW-31	45							
570-35321-2 MSD	MW-31	42							
LCS 570-86928/2-A	Lab Control Sample	44							
LCSD 570-86928/3-A	Lab Control Sample Dup	47							
MB 570-86928/1-A	Method Blank	41							

Surrogate Legend

DXE = 1,4-Dioxane-d8

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 570-87676/6
Matrix: Water
Analysis Batch: 87676

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/13/20 21:13	1
1,1,1-Trichloroethane	ND		0.50	0.084	ug/L			08/13/20 21:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.087	ug/L			08/13/20 21:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.50	0.13	ug/L			08/13/20 21:13	1
1,1,2-Trichloroethane	ND		0.50	0.069	ug/L			08/13/20 21:13	1
1,1-Dichloroethane	ND		0.50	0.060	ug/L			08/13/20 21:13	1
1,1-Dichloroethene	ND		0.50	0.10	ug/L			08/13/20 21:13	1
1,1-Dichloropropene	ND		0.50	0.070	ug/L			08/13/20 21:13	1
1,2,3-Trichlorobenzene	ND		0.50	0.12	ug/L			08/13/20 21:13	1
1,2,3-Trichloropropane	ND		1.0	0.076	ug/L			08/13/20 21:13	1
1,2,4-Trichlorobenzene	ND		0.50	0.089	ug/L			08/13/20 21:13	1
1,2,4-Trimethylbenzene	ND		0.50	0.068	ug/L			08/13/20 21:13	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.51	ug/L			08/13/20 21:13	1
1,2-Dibromoethane	ND		0.50	0.059	ug/L			08/13/20 21:13	1
1,2-Dichlorobenzene	ND		0.50	0.082	ug/L			08/13/20 21:13	1
1,2-Dichloroethane	ND		0.50	0.075	ug/L			08/13/20 21:13	1
1,2-Dichloropropane	ND		0.50	0.099	ug/L			08/13/20 21:13	1
1,3,5-Trimethylbenzene	ND		0.50	0.079	ug/L			08/13/20 21:13	1
1,3-Dichlorobenzene	ND		0.50	0.098	ug/L			08/13/20 21:13	1
1,3-Dichloropropane	ND		1.0	0.082	ug/L			08/13/20 21:13	1
1,4-Dichlorobenzene	ND		0.50	0.073	ug/L			08/13/20 21:13	1
2,2-Dichloropropane	ND		1.0	0.38	ug/L			08/13/20 21:13	1
2-Butanone	ND		5.0	0.46	ug/L			08/13/20 21:13	1
2-Chlorotoluene	ND		0.50	0.058	ug/L			08/13/20 21:13	1
2-Hexanone	ND		10	0.50	ug/L			08/13/20 21:13	1
4-Chlorotoluene	ND		0.50	0.091	ug/L			08/13/20 21:13	1
4-Methyl-2-pentanone	ND		5.0	0.42	ug/L			08/13/20 21:13	1
Acetone	ND		10	4.0	ug/L			08/13/20 21:13	1
Benzene	ND		0.50	0.072	ug/L			08/13/20 21:13	1
Bromobenzene	ND		0.50	0.061	ug/L			08/13/20 21:13	1
Bromochloromethane	ND		1.0	0.082	ug/L			08/13/20 21:13	1
Bromodichloromethane	ND		0.50	0.053	ug/L			08/13/20 21:13	1
Bromoform	ND		0.50	0.096	ug/L			08/13/20 21:13	1
Bromomethane	ND		2.0	0.99	ug/L			08/13/20 21:13	1
cis-1,2-Dichloroethene	ND		0.50	0.11	ug/L			08/13/20 21:13	1
cis-1,3-Dichloropropene	ND		0.50	0.096	ug/L			08/13/20 21:13	1
Carbon disulfide	ND		10	0.39	ug/L			08/13/20 21:13	1
Carbon tetrachloride	ND		0.50	0.057	ug/L			08/13/20 21:13	1
Chlorobenzene	ND		0.50	0.088	ug/L			08/13/20 21:13	1
Chloroethane	ND		0.50	0.12	ug/L			08/13/20 21:13	1
Chloroform	ND		0.50	0.062	ug/L			08/13/20 21:13	1
Chloromethane	ND		5.0	2.0	ug/L			08/13/20 21:13	1
Dibromochloromethane	ND		0.50	0.064	ug/L			08/13/20 21:13	1
Dibromomethane	ND		0.50	0.13	ug/L			08/13/20 21:13	1
Dichlorodifluoromethane	ND		1.0	0.099	ug/L			08/13/20 21:13	1
Ethylbenzene	ND		0.50	0.087	ug/L			08/13/20 21:13	1
Isopropylbenzene	ND		0.50	0.077	ug/L			08/13/20 21:13	1
Methylene Chloride	ND		1.0	0.043	ug/L			08/13/20 21:13	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 570-87676/6
Matrix: Water
Analysis Batch: 87676

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.067	ug/L			08/13/20 21:13	1
Naphthalene	ND		1.0	0.097	ug/L			08/13/20 21:13	1
n-Butylbenzene	ND		0.50	0.11	ug/L			08/13/20 21:13	1
N-Propylbenzene	ND		0.50	0.076	ug/L			08/13/20 21:13	1
o-Xylene	ND		0.50	0.086	ug/L			08/13/20 21:13	1
m,p-Xylene	ND		1.0	0.15	ug/L			08/13/20 21:13	1
p-Isopropyltoluene	ND		0.50	0.074	ug/L			08/13/20 21:13	1
sec-Butylbenzene	ND		0.50	0.095	ug/L			08/13/20 21:13	1
Styrene	ND		0.50	0.059	ug/L			08/13/20 21:13	1
trans-1,2-Dichloroethene	ND		0.50	0.082	ug/L			08/13/20 21:13	1
trans-1,3-Dichloropropene	ND		0.50	0.053	ug/L			08/13/20 21:13	1
tert-Butylbenzene	ND		0.50	0.082	ug/L			08/13/20 21:13	1
Tetrachloroethene	ND		0.50	0.24	ug/L			08/13/20 21:13	1
Toluene	ND		0.50	0.093	ug/L			08/13/20 21:13	1
Trichloroethene	ND		0.50	0.10	ug/L			08/13/20 21:13	1
Trichlorofluoromethane	ND		0.50	0.10	ug/L			08/13/20 21:13	1
Vinyl acetate	ND		5.0	0.70	ug/L			08/13/20 21:13	1
Vinyl chloride	ND		0.50	0.078	ug/L			08/13/20 21:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 128*		*08/13/20 21:13*	*1*
4-Bromofluorobenzene (Surr)	*118*		*68 - 120*		*08/13/20 21:13*	*1*
Dibromofluoromethane	*109*		*80 - 127*		*08/13/20 21:13*	*1*
Toluene-d8 (Surr)	*108*		*80 - 120*		*08/13/20 21:13*	*1*

Lab Sample ID: LCS 570-87676/3
Matrix: Water
Analysis Batch: 87676

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			10.0	10.01		ug/L		100	77 - 120		
1,2-Dibromoethane			10.0	10.05		ug/L		100	80 - 120		
1,2-Dichlorobenzene			10.0	9.447		ug/L		94	80 - 120		
1,2-Dichloroethane			10.0	10.43		ug/L		104	80 - 122		
Benzene			10.0	9.980		ug/L		100	80 - 120		
Carbon tetrachloride			10.0	9.111		ug/L		91	80 - 129		
Chlorobenzene			10.0	9.787		ug/L		98	80 - 120		
Ethylbenzene			10.0	8.920		ug/L		89	80 - 120		
Methyl-t-Butyl Ether (MTBE)			10.0	10.09		ug/L		101	75 - 123		
o-Xylene			10.0	8.915		ug/L		89	80 - 120		
m,p-Xylene			20.0	17.66		ug/L		88	80 - 120		
Toluene			10.0	10.75		ug/L		108	80 - 120		
Trichloroethene			10.0	9.901		ug/L		99	80 - 120		
Vinyl chloride			10.0	11.09		ug/L		111	63 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*111*		*80 - 128*
4-Bromofluorobenzene (Surr)	*94*		*68 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 570-87676/3
Matrix: Water
Analysis Batch: 87676

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	*106*		*80 - 127*
Toluene-d8 (Surr)	*113*		*80 - 120*

Lab Sample ID: LCSD 570-87676/4
Matrix: Water
Analysis Batch: 87676

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			10.0	10.04		ug/L		100	77 - 120	0	26
1,2-Dibromoethane			10.0	10.04		ug/L		100	80 - 120	0	32
1,2-Dichlorobenzene			10.0	9.746		ug/L		97	80 - 120	3	30
1,2-Dichloroethane			10.0	10.49		ug/L		105	80 - 122	1	23
Benzene			10.0	9.611		ug/L		96	80 - 120	4	22
Carbon tetrachloride			10.0	9.071		ug/L		91	80 - 129	0	36
Chlorobenzene			10.0	9.598		ug/L		96	80 - 120	2	29
Ethylbenzene			10.0	9.825		ug/L		98	80 - 120	10	25
Methyl-t-Butyl Ether (MTBE)			10.0	10.08		ug/L		101	75 - 123	0	27
o-Xylene			10.0	9.838		ug/L		98	80 - 120	10	30
m,p-Xylene			20.0	20.18		ug/L		101	80 - 120	13	30
Toluene			10.0	9.335		ug/L		93	80 - 120	14	28
Trichloroethene			10.0	9.633		ug/L		96	80 - 120	3	25
Vinyl chloride			10.0	10.87		ug/L		109	63 - 135	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*113*		*80 - 128*
4-Bromofluorobenzene (Surr)	*110*		*68 - 120*
Dibromofluoromethane	*111*		*80 - 127*
Toluene-d8 (Surr)	*98*		*80 - 120*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 570-86928/1-A
Matrix: Water
Analysis Batch: 87548

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 86928

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.50	0.18	ug/L		08/11/20 07:17	08/13/20 13:54	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	*41*		*15 - 150*	*08/11/20 07:17*	*08/13/20 13:54*	*1*

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*91*		*46 - 128*	*08/11/20 07:17*	*08/13/20 13:54*	*1*

Method: 8270C SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution) (Continued)

Lab Sample ID: LCS 570-86928/2-A
Matrix: Water
Analysis Batch: 87236

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 86928

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			20.0	19.57		ug/L		98	57 - 136		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*44*		*15 - 150*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*106*		*46 - 128*

Lab Sample ID: LCSD 570-86928/3-A
Matrix: Water
Analysis Batch: 87236

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 86928

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane			20.0	20.15		ug/L		101	57 - 136	3	20

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Dioxane-d8	*47*		*15 - 150*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*106*		*46 - 128*

Lab Sample ID: 570-35321-2 MS
Matrix: Water
Analysis Batch: 87236

Client Sample ID: MW-31
Prep Type: Total/NA
Prep Batch: 86928

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	4.1		19.9	23.18		ug/L		96	45 - 139		

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*45*		*15 - 150*

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5	*99*		*46 - 128*

Lab Sample ID: 570-35321-2 MSD
Matrix: Water
Analysis Batch: 87236

Client Sample ID: MW-31
Prep Type: Total/NA
Prep Batch: 86928

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	4.1		19.9	23.60		ug/L		98	45 - 139	2	17

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*42*		*15 - 150*

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5	*98*		*46 - 128*

QC Association Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

GC/MS VOA

Analysis Batch: 87676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35321-1	TB-080620B	Total/NA	Water	8260B	
570-35321-2	MW-31	Total/NA	Water	8260B	
MB 570-87676/6	Method Blank	Total/NA	Water	8260B	
LCS 570-87676/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 570-87676/4	Lab Control Sample Dup	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 86928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35321-2	MW-31	Total/NA	Water	3510C	
MB 570-86928/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-86928/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-86928/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
570-35321-2 MS	MW-31	Total/NA	Water	3510C	
570-35321-2 MSD	MW-31	Total/NA	Water	3510C	

Analysis Batch: 87236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-35321-2	MW-31	Total/NA	Water	8270C SIM ID	86928
LCS 570-86928/2-A	Lab Control Sample	Total/NA	Water	8270C SIM ID	86928
LCSD 570-86928/3-A	Lab Control Sample Dup	Total/NA	Water	8270C SIM ID	86928
570-35321-2 MS	MW-31	Total/NA	Water	8270C SIM ID	86928
570-35321-2 MSD	MW-31	Total/NA	Water	8270C SIM ID	86928

Analysis Batch: 87548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-86928/1-A	Method Blank	Total/NA	Water	8270C SIM ID	86928

Lab Chronicle

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Client Sample ID: TB-080620B

Date Collected: 08/06/20 08:00
Date Received: 08/06/20 17:30

Lab Sample ID: 570-35321-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	87676	08/13/20 21:40	UJHB	ECL 2
	Instrument ID: GCMSVV									

Client Sample ID: MW-31

Date Collected: 08/06/20 10:14
Date Received: 08/06/20 17:30

Lab Sample ID: 570-35321-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		4	20 mL	20 mL	87676	08/13/20 22:08	UJHB	ECL 2
	Instrument ID: GCMSVV									
Total/NA	Prep	3510C			100.3 mL	10 mL	86928	08/11/20 07:17		ECL 1
Total/NA	Analysis	8270C SIM ID		1			87236	08/12/20 11:13	AJ2Q	ECL 1
	Instrument ID: GCMSDDD									

Laboratory References:

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

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Laboratory: Eurofins Calscience LLC

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

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

Method Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	ECL 2
8270C SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	ECL 1
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ECL 1
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Hargis + Associates, Inc.
Project/Site: Raytheon / 532.30

Job ID: 570-35321-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
570-35321-1	TB-080620B	Water	08/06/20 08:00	08/06/20 17:30	
570-35321-2	MW-31	Water	08/06/20 10:14	08/06/20 17:30	

HARGIS + ASSOCIATES, INC.

Date: 08/06/2020
Page 1 of 1

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: A. Janzon, D. Seake

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	MATRIX: Groundwater	MATRIX: Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	PRESERVATION: Ice	CONTAINERS: 40-ml VOA	CONTAINERS: 1 L Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	ANALYSIS REQUESTED: 1,4 Dioxane 8270 SIM	ANALYSIS REQUESTED: 1,4-Dioxane 8270 MOD	Expected Concetration Range (ppb) for VOA's: 0 - 10	10 - 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
	TB-080620B	08/06/2020	0800		X	X	X	2		X			X						X			Report J Flags
	MW-31	↓	1014	X		X	X	3		X				X					X			
	↓	↓	↓	X			X		1		X								X			

Laboratory

Eurofins Calscience, Inc.
Attn: Virendra Patel
7440 Lincoln Way
Garden Grove, CA 92891
714-895-5494

570-35321 Chain of Custody

Total number of containers per analysis:

Total No. of Containers:

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
ADailly / H+A	8/6/20 1625	[signature] - EZ	8/6/20 1625
[signature]	8/6/20 1730	[signature] EZ	8/6/20 1730

- [ ] No. of containers correct
- [ ] Received in good condition
- [ ] Custody seals secure
- [ ] Conforms to COC document

2.9/C9 Temperature on receipt

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

8/17/2020

HARGIS - ASSOCIATES, INC.
HYDROLOGY • GEOLOGY • ENGINEERING

Date: 08/06/2020
Page 1 of 1

PROJECT: Raytheon Main

TASK NO.: 532.30

Project Manager Steve Netto
QA Manager Tyler Evans
Phone 858.455.6500
Fax 858.455.6533

Sampled By: A. Janzon, D. Seake

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)				Ice	CONTAINERS: 40-ml VOA	1 L Amber				ANALYSIS REQUESTED: VOCs by EPA 8260B	1,4 Dioxane 8270 SIM	1,4-Dioxane 8270 MOD				Expected Concetration Range (ppb) for VOA's: 0 - 10	10 - 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 hr TAT	Standard TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
	TB-080620B	08/06/2020	0800		X	X				X	2					X						X							X			Report J Flags
	MW-31	↓	1014	X		X				X	3					X							X						X			
	↓	↓	↓	X						X			1				X												X			

570-35321 Chain of Custody

Total number of containers per analysis:

Total No. of Containers:

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
A Donnelly / H+A	8/6/20 1625	[signature] - EZ	8/6/20 1625
[signature]	8/6/20 1730	[signature] EZ	8/6/20 1730

- [ ] No. of containers correct
- [ ] Received in good condition
- [ ] Custody seals secure
- [ ] Conforms to COC document

2.9/29 Temperature on receipt

Send Results to:
Steve Netto
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.5400
snetto@hargis.com

Laboratory
Eurofins Calscience, Inc.
Attn: Virendra Patel
7440 Lincoln Way
Garden Grove, CA 92891
714-895-5494

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

8/17/2020

Login Sample Receipt Checklist

Client: Hargis + Associates, Inc.

Job Number: 570-35321-1

Login Number: 35321

List Number: 1

Creator: Soriano, Precy

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

GROUNDWATER EXTRACTION AND TREATMENT SYSTEM ANALYTICAL RESULTS

ADVANCED TECHNOLOGY LABORATORIES

June 09, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001357
Client Reference : Raytheon Main GETS OCSD Quarterly Sample, 532.15

Enclosed are the results for sample(s) received on June 05, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS OCSD Quarterly S:
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	06/09/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-060520	2001357-01	Lab prepared water	6/05/20 8:00	6/05/20 13:35
CEFF	2001357-02	Groundwater	6/05/20 13:35	6/05/20 13:35

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS OCSD Quarterly S
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/09/2020

Client Sample ID: TB-060520

Lab ID: 2001357-01

Volatile Organic Compounds by EPA 624 **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
1,1,2-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
1,1-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
1,1-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
1,2-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
1,2-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
1,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
1,3-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
1,4-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
2-Chloroethyl vinyl ether	ND	0.50	1	B0F0140	06/08/2020	06/08/20 15:12	
Acrolein	ND	10	1	B0F0169	06/08/2020	06/08/20 15:12	
Acrylonitrile	ND	10	1	B0F0169	06/08/2020	06/08/20 15:12	
Benzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Bromodichloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Bromoform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Bromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Carbon tetrachloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Chlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Chloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Chloroform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Chloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Dibromochloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Ethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
m,p-Xylene	ND	1.0	1	B0F0167	06/08/2020	06/08/20 15:12	
Methylene chloride	ND	1.0	1	B0F0167	06/08/2020	06/08/20 15:12	
o-Xylene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Tetrachloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Toluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
trans-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Trichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Trichlorofluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Vinyl chloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:12	
Surrogate: 1,2-Dichloroethane-d4	*96.2 %*	*59 - 158*		B0F0140	06/08/2020	*06/08/20 15:12*	
Surrogate: 1,2-Dichloroethane-d4	*105 %*	*59 - 158*		B0F0169	06/08/2020	*06/08/20 15:12*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS OCSD Quarterly S
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/09/2020

Client Sample ID: TB-060520

Lab ID: 2001357-01

Volatile Organic Compounds by EPA 624 **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*		B0F0167	06/08/2020	*06/08/20 15:12*	
Surrogate: 4-Bromofluorobenzene	*92.3 %*	*71 - 127*		B0F0167	06/08/2020	*06/08/20 15:12*	
Surrogate: 4-Bromofluorobenzene	*97.2 %*	*71 - 127*		B0F0140	06/08/2020	*06/08/20 15:12*	
Surrogate: 4-Bromofluorobenzene	*102 %*	*71 - 127*		B0F0169	06/08/2020	*06/08/20 15:12*	
Surrogate: Dibromofluoromethane	*98.6 %*	*66 - 147*		B0F0140	06/08/2020	*06/08/20 15:12*	
Surrogate: Dibromofluoromethane	*102 %*	*66 - 147*		B0F0169	06/08/2020	*06/08/20 15:12*	
Surrogate: Dibromofluoromethane	*106 %*	*66 - 147*		B0F0167	06/08/2020	*06/08/20 15:12*	
Surrogate: Toluene-d8	*98.5 %*	*77 - 138*		B0F0140	06/08/2020	*06/08/20 15:12*	
Surrogate: Toluene-d8	*100 %*	*77 - 138*		B0F0167	06/08/2020	*06/08/20 15:12*	
Surrogate: Toluene-d8	*103 %*	*77 - 138*		B0F0169	06/08/2020	*06/08/20 15:12*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS OCSD Quarterly S
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/09/2020

Client Sample ID: CEFF

Lab ID: 2001357-02

Volatile Organic Compounds by EPA 624 **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
1,1,2-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
1,1-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
1,1-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
1,2-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
1,2-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
1,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
1,3-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
1,4-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
2-Chloroethyl vinyl ether	ND	0.50	1	B0F0140	06/08/2020	06/08/20 15:33	
Acrolein	ND	10	1	B0F0169	06/08/2020	06/08/20 15:33	
Acrylonitrile	ND	10	1	B0F0169	06/08/2020	06/08/20 15:33	
Benzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Bromodichloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Bromoform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Bromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Carbon tetrachloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Chlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Chloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Chloroform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Chloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Dibromochloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Ethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
m,p-Xylene	ND	1.0	1	B0F0167	06/08/2020	06/08/20 15:33	
Methylene chloride	ND	1.0	1	B0F0167	06/08/2020	06/08/20 15:33	
o-Xylene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Tetrachloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Toluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
trans-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Trichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Trichlorofluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Vinyl chloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 15:33	
Surrogate: 1,2-Dichloroethane-d4	*97.6 %*	*59 - 158*		B0F0140	06/08/2020	*06/08/20 15:33*	
Surrogate: 1,2-Dichloroethane-d4	*107 %*	*59 - 158*		B0F0169	06/08/2020	*06/08/20 15:33*	

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Client Sample ID: CEFF

Lab ID: 2001357-02

Volatile Organic Compounds by EPA 624

Analyst: VW

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: 1,2-Dichloroethane-d4	*116 %*		*59 - 158*		B0F0167	06/08/2020	*06/08/20 15:33*	
Surrogate: 4-Bromofluorobenzene	*92.3 %*		*71 - 127*		B0F0167	06/08/2020	*06/08/20 15:33*	
Surrogate: 4-Bromofluorobenzene	*97.2 %*		*71 - 127*		B0F0140	06/08/2020	*06/08/20 15:33*	
Surrogate: 4-Bromofluorobenzene	*101 %*		*71 - 127*		B0F0169	06/08/2020	*06/08/20 15:33*	
Surrogate: Dibromofluoromethane	*99.6 %*		*66 - 147*		B0F0140	06/08/2020	*06/08/20 15:33*	
Surrogate: Dibromofluoromethane	*103 %*		*66 - 147*		B0F0169	06/08/2020	*06/08/20 15:33*	
Surrogate: Dibromofluoromethane	*107 %*		*66 - 147*		B0F0167	06/08/2020	*06/08/20 15:33*	
Surrogate: Toluene-d8	*97.3 %*		*77 - 138*		B0F0140	06/08/2020	*06/08/20 15:33*	
Surrogate: Toluene-d8	*99.1 %*		*77 - 138*		B0F0167	06/08/2020	*06/08/20 15:33*	
Surrogate: Toluene-d8	*101 %*		*77 - 138*		B0F0169	06/08/2020	*06/08/20 15:33*	

1,4-Dioxane by EPA 8270: Isotope Dilution Technique

Analyst: SP

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	2.0	1	B0F0192	06/08/2020	06/09/20 13:46	
Surrogate: 1,2-Dichlorobenzene-d4	*82.0 %*		*17 - 119*		B0F0192	06/08/2020	*06/09/20 13:46*	
Surrogate: 2-Fluorobiphenyl	*81.9 %*		*10 - 133*		B0F0192	06/08/2020	*06/09/20 13:46*	
Surrogate: 4-Terphenyl-d14	*95.5 %*		*5 - 139*		B0F0192	06/08/2020	*06/09/20 13:46*	
Surrogate: Nitrobenzene-d5	*93.8 %*		*13 - 150*		B0F0192	06/08/2020	*06/09/20 13:46*	

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QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 624 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0140 - MSVOA_LL_W										
Blank (B0F0140-BLK1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
2-Chloroethyl vinyl ether	ND	0.50	0.31							
Surrogate: 1,2-Dichloroethane-d4	*22.57*			*25.0000*		*90.3*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*24.07*			*25.0000*		*96.3*	*71 - 127*			
Surrogate: Dibromofluoromethan	*24.33*			*25.0000*		*97.3*	*66 - 147*			
Surrogate: Toluene-d8	*23.69*			*25.0000*		*94.8*	*77 - 138*			
LCS (B0F0140-BS1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
2-Chloroethyl vinyl ether	14.5600	0.50	0.31	20.0000		72.8	0 - 126			
Surrogate: 1,2-Dichloroethane-d4	*22.70*			*25.0000*		*90.8*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*26.06*			*25.0000*		*104*	*71 - 127*			
Surrogate: Dibromofluoromethan	*24.24*			*25.0000*		*97.0*	*66 - 147*			
Surrogate: Toluene-d8	*24.56*			*25.0000*		*98.2*	*77 - 138*			
LCS Dup (B0F0140-BSD1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
2-Chloroethyl vinyl ether	14.8900	0.50	0.31	20.0000		74.4	0 - 126	2.24	20	
Surrogate: 1,2-Dichloroethane-d4	*21.80*			*25.0000*		*87.2*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*26.57*			*25.0000*		*106*	*71 - 127*			
Surrogate: Dibromofluoromethan	*23.11*			*25.0000*		*92.4*	*66 - 147*			
Surrogate: Toluene-d8	*24.13*			*25.0000*		*96.5*	*77 - 138*			

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Volatile Organic Compounds by EPA 624 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0167 - MSVOA_LL_W										
Blank (B0F0167-BLK1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,4-Dichlorobenzene	ND	0.50	0.17							
Benzene	ND	0.50	0.13							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Ethylbenzene	ND	0.50	0.13							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
o-Xylene	ND	0.50	0.13							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
trans-1,3-Dichloropropene	ND	0.50	0.23							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*26.84*			*25.0000*		*107*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*22.86*			*25.0000*		*91.4*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.22*			*25.0000*		*105*	*66 - 147*			
Surrogate: Toluene-d8	*24.12*			*25.0000*		*96.5*	*77 - 138*			
LCS (B0F0167-BS1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
1,1,1-Trichloroethane	22.2200	0.50	0.21	20.0000		111	62 - 124			
1,1,2,2-Tetrachloroethane	20.2300	0.50	0.36	20.0000		101	50 - 131			
1,1,2-Trichloroethane	22.4500	0.50	0.25	20.0000		112	77 - 121			

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Volatile Organic Compounds by EPA 624 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0167 - MSVOA_LL_W (continued)										
LCS (B0F0167-BS1) - Continued					Prepared: 6/8/2020 Analyzed: 6/8/2020					
1,1-Dichloroethane	22.1600	0.50	0.09	20.0000		111	52 - 130			
1,1-Dichloroethene	23.1600	0.50	0.13	20.0000		116	61 - 136			
1,2-Dichlorobenzene	20.9300	0.50	0.20	20.0000		105	82 - 117			
1,2-Dichloroethane	22.2200	0.50	0.20	20.0000		111	66 - 126			
1,2-Dichloropropane	21.2000	0.50	0.15	20.0000		106	70 - 117			
1,3-Dichlorobenzene	20.3400	0.50	0.16	20.0000		102	81 - 116			
1,4-Dichlorobenzene	20.7700	0.50	0.17	20.0000		104	80 - 114			
Benzene	21.4600	0.50	0.13	20.0000		107	80 - 116			
Bromodichloromethane	21.5600	0.50	0.14	20.0000		108	73 - 118			
Bromoform	22.8900	0.50	0.20	20.0000		114	65 - 133			
Bromomethane	19.2000	0.50	0.40	20.0000		96.0	7 - 205			
Carbon tetrachloride	23.0800	0.50	0.09	20.0000		115	63 - 133			
Chlorobenzene	21.4100	0.50	0.13	20.0000		107	86 - 113			
Chloroethane	21.0800	0.50	0.15	20.0000		105	66 - 141			
Chloroform	22.0300	0.50	0.11	20.0000		110	63 - 127			
Chloromethane	19.3400	0.50	0.12	20.0000		96.7	0 - 207			
cis-1,3-Dichloropropene	22.7700	0.50	0.13	20.0000		114	70 - 141			
Dibromochloromethane	23.2900	0.50	0.16	20.0000		116	67 - 135			
Ethylbenzene	21.3600	0.50	0.13	20.0000		107	77 - 118			
m,p-Xylene	42.9300	1.0	0.19	40.0000		107	78 - 126			
Methylene chloride	21.0900	1.0	0.71	20.0000		105	51 - 149			
o-Xylene	21.1100	0.50	0.13	20.0000		106	79 - 126			
Tetrachloroethene	20.9200	0.50	0.10	20.0000		105	73 - 129			
Toluene	21.1400	0.50	0.12	20.0000		106	78 - 121			
trans-1,2-Dichloroethene	22.5500	0.50	0.09	20.0000		113	58 - 141			
trans-1,3-Dichloropropene	22.7900	0.50	0.23	20.0000		114	68 - 128			
Trichloroethene	20.5200	0.50	0.10	20.0000		103	73 - 126			
Trichlorofluoromethane	21.7400	0.50	0.23	20.0000		109	62 - 146			
Vinyl chloride	20.9500	0.50	0.13	20.0000		105	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*27.00*			*25.0000*		*108*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*24.75*			*25.0000*		*99.0*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.12*			*25.0000*		*104*	*66 - 147*			
Surrogate: Toluene-d8	*25.01*			*25.0000*		*100*	*77 - 138*			
LCS Dup (B0F0167-BSD1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
1,1,1-Trichloroethane	21.3800	0.50	0.21	20.0000		107	62 - 124	3.85	20	
1,1,2,2-Tetrachloroethane	20.1700	0.50	0.36	20.0000		101	50 - 131	0.297	20	
1,1,2-Trichloroethane	22.4400	0.50	0.25	20.0000		112	77 - 121	0.0446	20	
1,1-Dichloroethane	21.3900	0.50	0.09	20.0000		107	52 - 130	3.54	20	
1,1-Dichloroethene	22.6500	0.50	0.13	20.0000		113	61 - 136	2.23	20	
1,2-Dichlorobenzene	20.3100	0.50	0.20	20.0000		102	82 - 117	3.01	20	

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Volatile Organic Compounds by EPA 624 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0167 - MSVOA_LL_W (continued)										
LCS Dup (B0F0167-BSD1) - Continued					Prepared: 6/8/2020 Analyzed: 6/8/2020					
1,2-Dichloroethane	22.3900	0.50	0.20	20.0000		112	66 - 126	0.762	20	
1,2-Dichloropropane	20.8800	0.50	0.15	20.0000		104	70 - 117	1.52	20	
1,3-Dichlorobenzene	20.2300	0.50	0.16	20.0000		101	81 - 116	0.542	20	
1,4-Dichlorobenzene	20.1200	0.50	0.17	20.0000		101	80 - 114	3.18	20	
Benzene	21.2600	0.50	0.13	20.0000		106	80 - 116	0.936	20	
Bromodichloromethane	20.9100	0.50	0.14	20.0000		105	73 - 118	3.06	20	
Bromoform	22.2900	0.50	0.20	20.0000		111	65 - 133	2.66	20	
Bromomethane	19.3100	0.50	0.40	20.0000		96.6	7 - 205	0.571	20	
Carbon tetrachloride	22.7800	0.50	0.09	20.0000		114	63 - 133	1.31	20	
Chlorobenzene	20.5000	0.50	0.13	20.0000		102	86 - 113	4.34	20	
Chloroethane	21.2900	0.50	0.15	20.0000		106	66 - 141	0.991	20	
Chloroform	21.6400	0.50	0.11	20.0000		108	63 - 127	1.79	20	
Chloromethane	20.8100	0.50	0.12	20.0000		104	0 - 207	7.32	20	
cis-1,3-Dichloropropene	22.3700	0.50	0.13	20.0000		112	70 - 141	1.77	20	
Dibromochloromethane	21.4000	0.50	0.16	20.0000		107	67 - 135	8.46	20	
Ethylbenzene	20.6600	0.50	0.13	20.0000		103	77 - 118	3.33	20	
m,p-Xylene	41.8000	1.0	0.19	40.0000		104	78 - 126	2.67	20	
Methylene chloride	20.3900	1.0	0.71	20.0000		102	51 - 149	3.38	20	
o-Xylene	20.7800	0.50	0.13	20.0000		104	79 - 126	1.58	20	
Tetrachloroethene	20.3300	0.50	0.10	20.0000		102	73 - 129	2.86	20	
Toluene	21.0300	0.50	0.12	20.0000		105	78 - 121	0.522	20	
trans-1,2-Dichloroethene	22.0100	0.50	0.09	20.0000		110	58 - 141	2.42	20	
trans-1,3-Dichloropropene	23.3800	0.50	0.23	20.0000		117	68 - 128	2.56	20	
Trichloroethene	20.3400	0.50	0.10	20.0000		102	73 - 126	0.881	20	
Trichlorofluoromethane	20.8800	0.50	0.23	20.0000		104	62 - 146	4.04	20	
Vinyl chloride	20.1200	0.50	0.13	20.0000		101	61 - 137	4.04	20	
Surrogate: 1,2-Dichloroethane-d4	*25.92*			*25.0000*		*104*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.23*			*25.0000*		*101*	*71 - 127*			
Surrogate: Dibromofluoromethan	*24.91*			*25.0000*		*99.6*	*66 - 147*			
Surrogate: Toluene-d8	*24.57*			*25.0000*		*98.3*	*77 - 138*			

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Volatile Organic Compounds by EPA 624 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0169 - MSVOA_LL_W										
Blank (B0F0169-BLK1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Acrolein	ND	10	1.9							
Acrylonitrile	ND	10	2.3							
Surrogate: 1,2-Dichloroethane-d4	*24.66*			*25.0000*		*98.6*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.13*			*25.0000*		*101*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.27*			*25.0000*		*101*	*66 - 147*			
Surrogate: Toluene-d8	*24.65*			*25.0000*		*98.6*	*77 - 138*			
LCS (B0F0169-BS1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Acrolein	975.920	10	1.9	400.000		244	1 - 130			L5
Acrylonitrile	434.950	10	2.3	400.000		109	29 - 144			
Surrogate: 1,2-Dichloroethane-d4	*24.81*			*25.0000*		*99.2*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*27.21*			*25.0000*		*109*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.18*			*25.0000*		*101*	*66 - 147*			
Surrogate: Toluene-d8	*25.56*			*25.0000*		*102*	*77 - 138*			
LCS Dup (B0F0169-BSD1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Acrolein	965.440	10	1.9	400.000		241	1 - 130	1.08	20	L5
Acrylonitrile	434.400	10	2.3	400.000		109	29 - 144	0.127	20	
Surrogate: 1,2-Dichloroethane-d4	*23.82*			*25.0000*		*95.3*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*27.75*			*25.0000*		*111*	*71 - 127*			
Surrogate: Dibromofluoromethan	*24.00*			*25.0000*		*96.0*	*66 - 147*			
Surrogate: Toluene-d8	*25.11*			*25.0000*		*100*	*77 - 138*			

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1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0192 - MSSEMI_W										
Blank (B0F0192-BLK1)						Prepared: 6/8/2020 Analyzed: 6/9/2020				
1,4-Dioxane	ND	2.0	0.84							
Surrogate: 1,2-Dichlorobenzene-d	*68.97*			*100.000*		*69.0*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*74.12*			*100.000*		*74.1*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*77.50*			*100.000*		*77.5*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*75.50*			*100.000*		*75.5*	*13 - 150*			
LCS (B0F0192-BS1)						Prepared: 6/8/2020 Analyzed: 6/9/2020				
1,4-Dioxane	104.360	2.0	0.84	100.000		104	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*68.02*			*100.000*		*68.0*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*70.71*			*100.000*		*70.7*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*75.53*			*100.000*		*75.5*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*75.73*			*100.000*		*75.7*	*13 - 150*			
LCS Dup (B0F0192-BSD1)						Prepared: 6/8/2020 Analyzed: 6/9/2020				
1,4-Dioxane	108.120	2.0	0.84	100.000		108	75 - 155	3.54	20	
Surrogate: 1,2-Dichlorobenzene-d	*66.55*			*100.000*		*66.6*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*73.41*			*100.000*		*73.4*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*79.28*			*100.000*		*79.3*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*75.22*			*100.000*		*75.2*	*13 - 150*			

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS OCSD Quarterly S:
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	06/09/2020

Notes and Definitions

L5	Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 6/5/2020
Page 1 of 1

PROJECT: Raytheon Main GETS OCSD Quarterly Sample

TASK NO.: 532.15

Project Manager Steve Netto
QA Manager Ross Horton
Phone 858.455.6500
Fax 858.455.6533

Sampled By: Ruben Sanchez

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)				Ice	CONTAINERS: 40-ml VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	ANALYSIS REQUESTED: VOCs by EPA 624	1,4-Dioxane by EPA 8270C MOD									Expected Concentration Range (ppb) for VOAs: 0 - 10	10 - 100	100 - 1,000	>1,000		SPECIAL HANDLING: 24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2001357-01	TB-060520	6/5/2020	8:00		X	X				X	2						X									X						X			
2001357-02	CEFF	6/5/2020	7:55	X		X				X	3					1	X	X								X						X			Note 48 hr TAT
Total number of containers per analysis:											5					1																		Total No. of Containers: 6

Relinquished By: / Company	Date / Time	Received By: / Company	Date / Time
H&A	6-5-20 11:10	H&A	6-5-20 11:10
Relinquished By: / Company	Date / Time	Received By: / Company	Date / Time
H&A	6-5-20 13:35		6.5.2020 1335

- ✓ No. of containers correct
- ✓ Received in good condition
- Custody seals secure
- ✓ Conforms to COC document

#1 11.2°C
#2 1.4°C
Temperature on receipt

Laboratory
Advanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

Instructions
1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

ADVANCED TECHNOLOGY LABORATORIES

June 12, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001359
Client Reference : Raytheon Main GETS Quarterly, 532.15

Enclosed are the results for sample(s) received on June 05, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	06/12/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CEFF	2001359-01	Groundwater	6/05/20 7:55	6/05/20 13:35
POX	2001359-02	Groundwater	6/05/20 8:15	6/05/20 13:35
INF	2001359-03	Groundwater	6/05/20 8:40	6/05/20 13:35
EW-02	2001359-04	Groundwater	6/05/20 9:45	6/05/20 13:35
MW-29	2001359-05	Groundwater	6/05/20 10:15	6/05/20 13:35

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Client Sample ID: CEFF

Lab ID: 2001359-01

Total Dissolved Solids (Residue, Filterable) by SM 2540C **Analyst: AH**

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	**630**	10	1	B0F0210	06/09/2020	06/10/20 18:00	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Client Sample ID: POX

Lab ID: 2001359-02

Anions Scan by Ion Chromatography EPA 300.0

Analyst: SDC

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloride	**94**	5.0	10	B0F0171	06/05/2020	06/05/20 20:29	
Nitrate, as N	**3.9**	0.10	1	B0F0171	06/05/2020	06/05/20 19:38	
Nitrite, as N	ND	0.10	1	B0F0171	06/05/2020	06/05/20 19:38	
ortho-Phosphate, as P	ND	0.05	1	B0F0171	06/05/2020	06/05/20 19:38	
Sulfate	**130**	10	10	B0F0171	06/05/2020	06/05/20 20:29	

UV Absorption by EPA 415.3

Analyst: AH

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B0F0162	06/05/2020	06/05/20 21:02	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	**640**	10	1	B0F0210	06/09/2020	06/10/20 18:00	

Chemical Oxygen Demand by EPA 410.4

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chemical Oxygen Demand	**5.6**	5.0	1	B0F0186	06/08/2020	06/08/20 20:03	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Client Sample ID: INF

Lab ID: 2001359-03

Anions Scan by Ion Chromatography EPA 300.0

Analyst: SDC

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloride	**92**	5.0	10	B0F0171	06/05/2020	06/05/20 20:40	
Nitrate, as N	**3.9**	0.10	1	B0F0171	06/05/2020	06/05/20 19:50	
Nitrite, as N	ND	0.10	1	B0F0171	06/05/2020	06/05/20 19:50	
ortho-Phosphate, as P	ND	0.05	1	B0F0171	06/05/2020	06/05/20 19:50	
Sulfate	**130**	10	10	B0F0171	06/05/2020	06/05/20 20:40	

UV Absorption by EPA 415.3

Analyst: AH

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B0F0162	06/05/2020	06/05/20 21:02	

Alkalinity, Speciated by SM 2320B

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO3)	**220**	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Carbonate (as CaCO3)	ND	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Total (as CaCO3)	**220**	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	**640**	10	1	B0F0210	06/09/2020	06/10/20 18:00	

Total Organic Carbon by SM 5310B

Analyst: Sammy

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B0F0256	06/08/2020	06/09/20 00:16	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	06/12/2020

Client Sample ID: INF

Lab ID: 2001359-03

Chemical Oxygen Demand by EPA 410.4

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chemical Oxygen Demand	**6.3**	5.0	1	B0F0186	06/08/2020	06/08/20 20:03	

Total Metals by ICP-AES EPA 6010B

Analyst: TA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Selenium	ND	0.010	1	B0F0204	06/09/2020	06/10/20 13:24	

Dissolved Metals by ICP-AES EPA 6010B

Analyst: TA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Calcium	**110**	0.50	1	B0F0205	06/09/2020	06/10/20 12:06	
Iron	ND	0.50	1	B0F0205	06/09/2020	06/10/20 12:06	
Magnesium	**29**	0.10	1	B0F0205	06/09/2020	06/10/20 12:06	
Manganese	ND	0.50	1	B0F0205	06/09/2020	06/10/20 12:06	
Selenium	**0.014**	0.010	1	B0F0205	06/09/2020	06/10/20 12:06	
Sodium	**78**	1.0	1	B0F0205	06/09/2020	06/10/20 12:06	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Client Sample ID: EW-02

Lab ID: 2001359-04

Anions Scan by Ion Chromatography EPA 300.0

Analyst: SDC

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloride	**81**	5.0	10	B0F0171	06/05/2020	06/05/20 20:52	
Nitrate, as N	**3.4**	0.10	1	B0F0171	06/05/2020	06/05/20 20:01	
Nitrite, as N	ND	0.10	1	B0F0171	06/05/2020	06/05/20 20:01	
ortho-Phosphate, as P	ND	0.05	1	B0F0171	06/05/2020	06/05/20 20:01	
Sulfate	**130**	10	10	B0F0171	06/05/2020	06/05/20 20:52	

UV Absorption by EPA 415.3

Analyst: AH

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B0F0162	06/05/2020	06/05/20 21:02	

Alkalinity, Speciated by SM 2320B

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO3)	**210**	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Carbonate (as CaCO3)	ND	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Total (as CaCO3)	**210**	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	**620**	10	1	B0F0210	06/09/2020	06/10/20 18:00	

Total Organic Carbon by SM 5310B

Analyst: Sammy

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B0F0256	06/08/2020	06/09/20 00:34	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Client Sample ID: EW-02

Lab ID: 2001359-04

Chemical Oxygen Demand by EPA 410.4

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chemical Oxygen Demand	ND	5.0	1	B0F0186	06/08/2020	06/08/20 20:03	

Total Metals by ICP-AES EPA 6010B

Analyst: TA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Selenium	ND	0.010	1	B0F0204	06/09/2020	06/10/20 13:26	

Dissolved Metals by ICP-AES EPA 6010B

Analyst: TA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Calcium	**100**	0.50	1	B0F0205	06/09/2020	06/10/20 12:10	
Iron	ND	0.50	1	B0F0205	06/09/2020	06/10/20 12:10	
Magnesium	**29**	0.10	1	B0F0205	06/09/2020	06/10/20 12:10	
Manganese	ND	0.50	1	B0F0205	06/09/2020	06/10/20 12:10	
Selenium	ND	0.010	1	B0F0205	06/09/2020	06/10/20 12:10	
Sodium	**74**	1.0	1	B0F0205	06/09/2020	06/10/20 12:10	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Client Sample ID: MW-29

Lab ID: 2001359-05

Anions Scan by Ion Chromatography EPA 300.0

Analyst: SDC

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloride	**150**	5.0	10	B0F0171	06/05/2020	06/05/20 21:03	
Nitrate, as N	**6.1**	0.10	1	B0F0171	06/05/2020	06/05/20 20:13	
Nitrite, as N	ND	0.10	1	B0F0171	06/05/2020	06/05/20 20:13	
ortho-Phosphate, as P	ND	0.05	1	B0F0171	06/05/2020	06/05/20 20:13	
Sulfate	**120**	10	10	B0F0171	06/05/2020	06/05/20 21:03	

UV Absorption by EPA 415.3

Analyst: AH

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B0F0162	06/05/2020	06/05/20 21:02	

Alkalinity, Speciated by SM 2320B

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO3)	**250**	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Carbonate (as CaCO3)	ND	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Total (as CaCO3)	**250**	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	**760**	10	1	B0F0210	06/09/2020	06/10/20 18:00	

Total Organic Carbon by SM 5310B

Analyst: Sammy

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B0F0256	06/08/2020	06/09/20 01:35	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Client Sample ID: MW-29

Lab ID: 2001359-05

Chemical Oxygen Demand by EPA 410.4

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chemical Oxygen Demand	ND	5.0	1	B0F0186	06/08/2020	06/08/20 20:03	

Total Metals by ICP-AES EPA 6010B

Analyst: TA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Selenium	ND	0.010	1	B0F0204	06/09/2020	06/10/20 13:28	

Dissolved Metals by ICP-AES EPA 6010B

Analyst: TA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Calcium	**120**	0.50	1	B0F0205	06/09/2020	06/10/20 12:12	
Iron	ND	0.50	1	B0F0205	06/09/2020	06/10/20 12:12	
Magnesium	**32**	0.10	1	B0F0205	06/09/2020	06/10/20 12:12	
Manganese	ND	0.50	1	B0F0205	06/09/2020	06/10/20 12:12	
Selenium	ND	0.010	1	B0F0205	06/09/2020	06/10/20 12:12	
Sodium	**92**	1.0	1	B0F0205	06/09/2020	06/10/20 12:12	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

QUALITY CONTROL SECTION

Alkalinity, Speciated by SM 2320B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0185 - No_Prep_WC1_W										
Blank (B0F0185-BLK1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Alkalinity, Bicarbonate (as CaCO3)	ND	5.0	3.4							
Alkalinity, Carbonate (as CaCO3)	ND	5.0	3.4							
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	3.4							
Alkalinity, Total (as CaCO3)	ND	5.0	3.4							
LCS (B0F0185-BS1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Alkalinity, Total (as CaCO3)	102.570	5.0	3.4	99.9580		103	80 - 120			
Matrix Spike (B0F0185-MS1)			**Source: 2001348-01**		Prepared: 6/8/2020 Analyzed: 6/8/2020					
Alkalinity, Total (as CaCO3)	330.670	5.0	3.4	99.9580	231.680	99.0	80 - 120			
Matrix Spike Dup (B0F0185-MSD1)			**Source: 2001348-01**		Prepared: 6/8/2020 Analyzed: 6/8/2020					
Alkalinity, Total (as CaCO3)	332.140	5.0	3.4	99.9580	231.680	101	80 - 120	0.444	20	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Total Dissolved Solids (Residue, Filterable) by SM 2540C - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0210 - No_Prep_WC1_W										
Blank (B0F0210-BLK1)					Prepared: 6/9/2020 Analyzed: 6/10/2020					
Residue, Dissolved	ND	10	10							
LCS (B0F0210-BS1)					Prepared: 6/9/2020 Analyzed: 6/10/2020					
Residue, Dissolved	965.000	10	10	980.000		98.5	80 - 120			
Duplicate (B0F0210-DUP1)			**Source: 2001374-01**		Prepared: 6/9/2020 Analyzed: 6/10/2020					
Residue, Dissolved	791.000	10	10		783.000			1.02	10	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Anions Scan by Ion Chromatography EPA 300.0 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0171 - No_Prep_IC1_W										
Blank (B0F0171-BLK1)					Prepared: 6/5/2020 Analyzed: 6/5/2020					
Chloride	ND	0.50	0.15							
Nitrate, as N	ND	0.10	0.05							
Nitrite, as N	ND	0.10	0.02							
ortho-Phosphate, as P	ND	0.05	0.05							
Sulfate	ND	1.0	0.25							
LCS (B0F0171-BS1)					Prepared: 6/5/2020 Analyzed: 6/5/2020					
Chloride	1.08080	0.50	0.15	1.00000		108	90 - 110			
Nitrate, as N	1.03160	0.10	0.05	1.00000		103	90 - 110			
Nitrite, as N	1.05760	0.10	0.02	1.00000		106	90 - 110			
ortho-Phosphate, as P	0.915100	0.05	0.05	1.00000		91.5	90 - 110			
Sulfate	2.19650	1.0	0.25	2.00000		110	90 - 110			
Duplicate (B0F0171-DUP1)			**Source: 2001359-02**		Prepared: 6/5/2020 Analyzed: 6/5/2020					
Chloride	125.031	0.50	0.15		94.2280			28.1	20	D6, E
Nitrate, as N	3.92140	0.10	0.05		3.87180			1.27	20	
Nitrite, as N	ND	0.10	0.02		ND				20	
ortho-Phosphate, as P	ND	0.05	0.05		ND				20	
Sulfate	169.796	1.0	0.25		130.076			26.5	20	D6, E
Matrix Spike (B0F0171-MS1)			**Source: 2001359-02**		Prepared: 6/5/2020 Analyzed: 6/5/2020					
Chloride	127.072	0.50	0.15	2.50000	94.2280	1310	80 - 120			M2, E
Nitrate, as N	6.39560	0.10	0.05	2.50000	3.87180	101	80 - 120			
Nitrite, as N	2.81460	0.10	0.02	2.50000	ND	113	80 - 120			
ortho-Phosphate, as P	0.894000	0.05	0.05	2.50000	ND	35.8	80 - 120			M2
Sulfate	176.600	1.0	0.25	5.00000	130.076	930	80 - 120			M2, E
Matrix Spike Dup (B0F0171-MSD1)			**Source: 2001359-02**		Prepared: 6/5/2020 Analyzed: 6/5/2020					
Chloride	127.266	0.50	0.15	2.50000	94.2280	1320	80 - 120	0.152	20	M2, E
Nitrate, as N	6.57470	0.10	0.05	2.50000	3.87180	108	80 - 120	2.76	20	
Nitrite, as N	2.92770	0.10	0.02	2.50000	ND	117	80 - 120	3.94	20	
ortho-Phosphate, as P	1.20830	0.05	0.05	2.50000	ND	48.3	80 - 120	29.9	20	M2
Sulfate	177.715	1.0	0.25	5.00000	130.076	953	80 - 120	0.629	20	M2, E

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

UV Absorption by EPA 415.3 - Quality Control

Analyte	Result (1/cm)	PQL (1/cm)	MDL (1/cm)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0162 - No_Prep_II_W										
Duplicate (B0F0162-DUP1)			**Source: 2001360-05**		Prepared: 6/5/2020 Analyzed: 6/5/2020					
UV Absorption	ND	0.01	0.01		ND				20	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Total Organic Carbon by SM 5310B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0256 - No_Prep_II_W										
Blank (B0F0256-BLK1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Organic Carbon, Total	ND	3.0	1.3							
LCS (B0F0256-BS1)					Prepared: 6/8/2020 Analyzed: 6/11/2020					
Organic Carbon, Total	22.8800	3.0	1.3	25.0000		91.5	80 - 120			
Matrix Spike (B0F0256-MS1)			**Source: 2001359-05**		Prepared: 6/8/2020 Analyzed: 6/9/2020					
Organic Carbon, Total	24.1200	3.0	1.3	25.0000	ND	96.5	80 - 120			
Matrix Spike (B0F0256-MS2)			**Source: 2001360-04**		Prepared: 6/8/2020 Analyzed: 6/9/2020					
Organic Carbon, Total	24.4300	3.0	1.3	25.0000	ND	97.7	80 - 120			
Matrix Spike Dup (B0F0256-MSD1)			**Source: 2001359-05**		Prepared: 6/8/2020 Analyzed: 6/9/2020					
Organic Carbon, Total	46.9600	3.0	1.3	25.0000	ND	188	80 - 120	64.3	20	M2
Matrix Spike Dup (B0F0256-MSD2)			**Source: 2001360-04**		Prepared: 6/8/2020 Analyzed: 6/9/2020					
Organic Carbon, Total	42.7400	3.0	1.3	25.0000	ND	171	80 - 120	54.5	20	M2

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Chemical Oxygen Demand by EPA 410.4 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0186 - Prep_WC1_W										
Blank (B0F0186-BLK1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Chemical Oxygen Demand	ND	5.0	4.2							
LCS (B0F0186-BS1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Chemical Oxygen Demand	467.596	5.0	4.2	501.500		93.2	80 - 120			
Matrix Spike (B0F0186-MS1)			**Source: 2001359-02**		Prepared: 6/8/2020 Analyzed: 6/8/2020					
Chemical Oxygen Demand	569.208	5.0	4.2	501.500	5.59000	112	80 - 120			
Matrix Spike Dup (B0F0186-MSD1)			**Source: 2001359-02**		Prepared: 6/8/2020 Analyzed: 6/8/2020					
Chemical Oxygen Demand	570.243	5.0	4.2	501.500	5.59000	113	80 - 120	0.182	20	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0204 - EPA 3010A_W										
Blank (B0F0204-BLK1)					Prepared: 6/9/2020 Analyzed: 6/10/2020					
Selenium	ND	0.010	0.0093							
LCS (B0F0204-BS1)					Prepared: 6/9/2020 Analyzed: 6/10/2020					
Selenium	0.485056	0.010	0.0093	0.500000		97.0	80 - 120			
Matrix Spike (B0F0204-MS1)			**Source: 2001348-01**		Prepared: 6/9/2020 Analyzed: 6/10/2020					
Selenium	0.503711	0.010	0.0093	0.500000	ND	101	59 - 135			
Matrix Spike Dup (B0F0204-MSD1)			**Source: 2001348-01**		Prepared: 6/9/2020 Analyzed: 6/10/2020					
Selenium	0.491608	0.010	0.0093	0.500000	ND	98.3	59 - 135	2.43	20	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/12/2020

Dissolved Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0205 - EPA 3010A_W										
Blank (B0F0205-BLK1)					Prepared: 6/9/2020 Analyzed: 6/10/2020					
Calcium	ND	0.50	0.12							
Iron	ND	0.50	0.011							
Magnesium	ND	0.10	0.021							
Manganese	ND	0.50	0.0046							
Selenium	ND	0.010	0.0093							
Sodium	ND	1.0	0.12							
LCS (B0F0205-BS1)					Prepared: 6/9/2020 Analyzed: 6/10/2020					
Calcium	5.39372	0.50	0.12	5.00000		108	80 - 120			
Iron	5.23256	0.50	0.011	5.00000		105	80 - 120			
Magnesium	5.00105	0.10	0.021	5.00000		100	80 - 120			
Manganese	0.527940	0.50	0.0046	0.500000		106	80 - 120			
Selenium	0.496113	0.010	0.0093	0.500000		99.2	80 - 120			
Sodium	4.65704	1.0	0.12	5.00000		93.1	80 - 120			
Matrix Spike (B0F0205-MS1)			**Source: 2001359-03**		Prepared: 6/9/2020 Analyzed: 6/10/2020					
Calcium	103.902	0.50	0.12	5.00000	106.304	-48.0	10 - 167			M1
Iron	5.17506	0.50	0.011	5.00000	0.027088	103	39 - 130			
Magnesium	31.8618	0.10	0.021	5.00000	29.2149	52.9	31 - 139			
Manganese	0.512010	0.50	0.0046	0.500000	ND	102	44 - 125			
Selenium	0.524946	0.010	0.0093	0.500000	0.014136	102	59 - 135			
Sodium	77.3784	1.0	0.12	5.00000	78.3629	-19.7	18 - 173			M1
Matrix Spike Dup (B0F0205-MSD1)			**Source: 2001359-03**		Prepared: 6/9/2020 Analyzed: 6/10/2020					
Calcium	103.516	0.50	0.12	5.00000	106.304	-55.8	10 - 167	0.372	20	M1
Iron	5.25749	0.50	0.011	5.00000	0.027088	105	39 - 130	1.58	20	
Magnesium	32.0902	0.10	0.021	5.00000	29.2149	57.5	31 - 139	0.714	20	
Manganese	0.520746	0.50	0.0046	0.500000	ND	104	44 - 125	1.69	20	
Selenium	0.504070	0.010	0.0093	0.500000	0.014136	98.0	59 - 135	4.06	20	
Sodium	77.3189	1.0	0.12	5.00000	78.3629	-20.9	18 - 173	0.0768	20	M1

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS Quarterly, 532.15
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	06/12/2020

Notes and Definitions

M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
E	Result value is above quantitation range and therefore, estimated.
D6	Sample required dilution due to high concentration of target analyte.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 6/5/2020
Page 1 of 1

PROJECT: Raytheon Main GETS Quarterly Sample

TASK NO.: 532.15

Project Manager Steve Netto
QA Manager Ross Horton
Phone 858.455.6500
Fax 858.455.6533

Sampled By: Ruben Sanchez

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Ice	CONTAINERS: 40-ml VOA	125 mL Poly	250 mL Poly	500 Ml Poly	250 mL Glass	ANALYSIS REQUESTED: Alkalinity by SM2320B	Anions by EPA 300	COD by EPA 410.4	Dissolved Metals by EPA 6010B	Total Dissolved Solids by SM2540C	Total Organic Carbon by SM5310B	Total Se by EPA 6010B	UV Absorption EPA 415.3 @254 nm	Expected Concentration Range (ppb) for VOAs: 0 - 10	10 - 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2001359-01	CEFF	6/5/2020	7:55	X					X		1								X										X			
02	POX	6/5/2020	8:15	X				X	X		3			1		X	X		X			X							X			Lab to filter dissolved
03	INF	6/5/2020	8:40	X			X		X	X	3	3	1	2	1	X	X	X	X	X	X	X	X							X			metals, and anions
04	EW-02	6/5/2020	9:45	X			X		X	X	3	3	1	2	1	X	X	X	X	X	X	X	X							X			
05	MW-29	6/5/2020	10:15	X			X		X	X	3	3	1	2	1	X	X	X	X	X	X	X	X							X			
Total number of containers per analysis:										9	13	3	6	4																		Total No. of Containers: 35

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
H+A	6-5-20 11:10	H+A	6-5-20 11:10
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
H+A	6-5-20 13:35		6-5-2020 1335

- [ ] No. of containers correct
- [ ] Received in good condition
- [ ] Custody seals secure
- [ ] Conforms to COC document

H1 1.2 °C
H2 1.4 °C
Temperature on receipt

Laboratory
Advanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

Instructions
1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

ADVANCED TECHNOLOGY LABORATORIES

June 25, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001360
Client Reference : Raytheon Main GETS Monthly Sample, 532.15

Enclosed are the results for sample(s) received on June 05, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-060520	2001360-01	Lab prepared water	6/05/20 8:00	6/05/20 13:33
CEFF	2001360-02	Groundwater	6/05/20 7:55	6/05/20 13:33
CBT	2001360-03	Groundwater	6/05/20 8:10	6/05/20 13:33
POX	2001360-04	Groundwater	6/05/20 8:15	6/05/20 13:33
PF	2001360-05	Groundwater	6/05/20 8:30	6/05/20 13:33
INF	2001360-06	Groundwater	6/05/20 8:40	6/05/20 13:33
EW-02	2001360-07	Groundwater	6/05/20 9:45	6/05/20 13:33
MW-29	2001360-08	Groundwater	6/05/20 10:15	6/05/20 13:33

CASE NARRATIVE

Samples for Bromate by IC-MS/MS was subcontracted to Element Materials Technology with CA-ELAP Cert. 2652.

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: TB-060520

Lab ID: 2001360-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,1,1-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,1,2-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,1-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,1-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,1-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,2,3-Trichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,2-Dibromoethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,2-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,2-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,3-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,3-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
1,4-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
2,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
2-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
4-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
4-Isopropyltoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Benzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Bromobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Bromodichloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Bromoform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Bromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Carbon tetrachloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Chlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Chloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Chloroform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Chloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: TB-060520

Lab ID: 2001360-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromochloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Dibromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Dichlorodifluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Ethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Hexachlorobutadiene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Isopropylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
m,p-Xylene	ND	1.0	1	B0F0167	06/08/2020	06/08/20 16:16	
Methylene chloride	ND	1.0	1	B0F0167	06/08/2020	06/08/20 16:16	
n-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
n-Propylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Naphthalene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
o-Xylene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
sec-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Styrene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
tert-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Tetrachloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Toluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Trichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Trichlorofluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Vinyl chloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:16	
Surrogate: 1,2-Dichloroethane-d4	*116 %*	*59 - 158*		B0F0167	06/08/2020	*06/08/20 16:16*	
Surrogate: 4-Bromofluorobenzene	*93.7 %*	*71 - 127*		B0F0167	06/08/2020	*06/08/20 16:16*	
Surrogate: Dibromofluoromethane	*108 %*	*66 - 147*		B0F0167	06/08/2020	*06/08/20 16:16*	
Surrogate: Toluene-d8	*97.1 %*	*77 - 138*		B0F0167	06/08/2020	*06/08/20 16:16*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CEFF

Lab ID: 2001360-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,1,1-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,1,2-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,1-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,1-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,1-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,2,3-Trichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,2-Dibromoethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,2-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,2-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,3-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,3-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
1,4-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
2,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
2-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
4-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
4-Isopropyltoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Benzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Bromobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Bromodichloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Bromoform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Bromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Carbon tetrachloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Chlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Chloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Chloroform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Chloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	

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San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CEFF

Lab ID: 2001360-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromochloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Dibromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Dichlorodifluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Ethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Hexachlorobutadiene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Isopropylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
m,p-Xylene	ND	1.0	1	B0F0167	06/08/2020	06/08/20 16:37	
Methylene chloride	ND	1.0	1	B0F0167	06/08/2020	06/08/20 16:37	
n-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
n-Propylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Naphthalene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
o-Xylene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
sec-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Styrene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
tert-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Tetrachloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Toluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Trichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Trichlorofluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Vinyl chloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:37	
Surrogate: 1,2-Dichloroethane-d4	*113 %*	*59 - 158*		B0F0167	06/08/2020	*06/08/20 16:37*	
Surrogate: 4-Bromofluorobenzene	*91.8 %*	*71 - 127*		B0F0167	06/08/2020	*06/08/20 16:37*	
Surrogate: Dibromofluoromethane	*107 %*	*66 - 147*		B0F0167	06/08/2020	*06/08/20 16:37*	
Surrogate: Toluene-d8	*97.4 %*	*77 - 138*		B0F0167	06/08/2020	*06/08/20 16:37*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CEFF

Lab ID: 2001360-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0F0232	06/10/2020	06/10/20 13:04	
Surrogate: 1,2-Dichlorobenzene-d4	*76.4 %*		*17 - 119*		B0F0232	06/10/2020	*06/10/20 13:04*	
Surrogate: 2-Fluorobiphenyl	*84.2 %*		*10 - 133*		B0F0232	06/10/2020	*06/10/20 13:04*	
Surrogate: 4-Terphenyl-d14	*72.5 %*		*5 - 139*		B0F0232	06/10/2020	*06/10/20 13:04*	
Surrogate: Nitrobenzene-d5	*79.7 %*		*13 - 150*		B0F0232	06/10/2020	*06/10/20 13:04*	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CBT

Lab ID: 2001360-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,1,1-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,1,2-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,1-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,1-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,1-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,2,3-Trichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,2-Dibromoethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,2-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,2-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,3-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,3-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
1,4-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
2,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
2-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
4-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
4-Isopropyltoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Benzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Bromobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Bromodichloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Bromoform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Bromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Carbon tetrachloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Chlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Chloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Chloroform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Chloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	

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San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CBT

Lab ID: 2001360-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromochloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Dibromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Dichlorodifluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Ethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Hexachlorobutadiene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Isopropylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
m,p-Xylene	ND	1.0	1	B0F0167	06/08/2020	06/08/20 16:58	
Methylene chloride	ND	1.0	1	B0F0167	06/08/2020	06/08/20 16:58	
n-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
n-Propylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Naphthalene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
o-Xylene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
sec-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Styrene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
tert-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Tetrachloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Toluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Trichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Trichlorofluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Vinyl chloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 16:58	
Surrogate: 1,2-Dichloroethane-d4	*116 %*	*59 - 158*		B0F0167	06/08/2020	*06/08/20 16:58*	
Surrogate: 4-Bromofluorobenzene	*90.7 %*	*71 - 127*		B0F0167	06/08/2020	*06/08/20 16:58*	
Surrogate: Dibromofluoromethane	*108 %*	*66 - 147*		B0F0167	06/08/2020	*06/08/20 16:58*	
Surrogate: Toluene-d8	*100 %*	*77 - 138*		B0F0167	06/08/2020	*06/08/20 16:58*	

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San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CBT

Lab ID: 2001360-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0F0232	06/10/2020	06/10/20 13:31	
Surrogate: 1,2-Dichlorobenzene-d4	*77.7 %*		*17 - 119*		B0F0232	06/10/2020	*06/10/20 13:31*	
Surrogate: 2-Fluorobiphenyl	*95.1 %*		*10 - 133*		B0F0232	06/10/2020	*06/10/20 13:31*	
Surrogate: 4-Terphenyl-d14	*85.8 %*		*5 - 139*		B0F0232	06/10/2020	*06/10/20 13:31*	
Surrogate: Nitrobenzene-d5	*57.0 %*		*13 - 150*		B0F0232	06/10/2020	*06/10/20 13:31*	

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San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: POX

Lab ID: 2001360-04

Alkalinity, Speciated by SM 2320B

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO3)	**220**	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Carbonate (as CaCO3)	ND	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Total (as CaCO3)	**220**	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	

Total Organic Carbon by SM 5310B

Analyst: Sammy

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B0F0256	06/08/2020	06/09/20 01:52	

Volatile Organic Compounds by EPA 8260B

Analyst: VW

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,1,1-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,1,2-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,1-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,1-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,1-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,2,3-Trichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,2-Dibromoethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,2-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,2-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,3-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,3-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
1,4-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
2,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	

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Client Sample ID: POX

Lab ID: 2001360-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
2-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
4-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
4-Isopropyltoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Benzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Bromobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Bromodichloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Bromoform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Bromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Carbon tetrachloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Chlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Chloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Chloroform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Chloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Dibromochloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Dibromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Dichlorodifluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Ethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Hexachlorobutadiene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Isopropylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
m,p-Xylene	ND	1.0	1	B0F0167	06/08/2020	06/08/20 17:20	
Methylene chloride	ND	1.0	1	B0F0167	06/08/2020	06/08/20 17:20	
n-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
n-Propylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Naphthalene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
o-Xylene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
sec-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Styrene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
tert-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Tetrachloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Toluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Trichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Trichlorofluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	
Vinyl chloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:20	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: POX

Lab ID: 2001360-04

Volatile Organic Compounds by EPA 8260B — **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: 1,2-Dichloroethane-d4	*115 %*	*59 - 158*		B0F0167	06/08/2020	*06/08/20 17:20*	
Surrogate: 4-Bromofluorobenzene	*95.9 %*	*71 - 127*		B0F0167	06/08/2020	*06/08/20 17:20*	
Surrogate: Dibromofluoromethane	*110 %*	*66 - 147*		B0F0167	06/08/2020	*06/08/20 17:20*	
Surrogate: Toluene-d8	*98.4 %*	*77 - 138*		B0F0167	06/08/2020	*06/08/20 17:20*	

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique — **Analyst: SP**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	1	B0F0232	06/10/2020	06/10/20 13:59	
Surrogate: 1,2-Dichlorobenzene-d4	*73.0 %*	*17 - 119*		B0F0232	06/10/2020	*06/10/20 13:59*	
Surrogate: 2-Fluorobiphenyl	*85.3 %*	*10 - 133*		B0F0232	06/10/2020	*06/10/20 13:59*	
Surrogate: 4-Terphenyl-d14	*72.0 %*	*5 - 139*		B0F0232	06/10/2020	*06/10/20 13:59*	
Surrogate: Nitrobenzene-d5	*80.9 %*	*13 - 150*		B0F0232	06/10/2020	*06/10/20 13:59*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: PF

Lab ID: 2001360-05

UV Absorption by EPA 415.3

Analyst: AH

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B0F0162	06/05/2020	06/05/20 21:02	

Alkalinity, Speciated by SM 2320B

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO3)	**220**	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Carbonate (as CaCO3)	ND	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	
Alkalinity, Total (as CaCO3)	**220**	5.0	1	B0F0185	06/08/2020	06/08/20 19:12	

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	1.0	1	B0F0213	06/09/2020	06/10/20 16:00	

Total Organic Carbon by SM 5310B

Analyst: Sammy

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B0F0256	06/08/2020	06/09/20 02:10	

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San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: INF

Lab ID: 2001360-06

Bromide by Ion Chromatography EPA 300

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	**0.47**	0.05	1	B0F0184	06/08/2020	06/08/20 15:14	

Volatile Organic Compounds by EPA 8260B

Analyst: VW

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,1,1-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,1,2-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,1-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,1-Dichloroethene	**43**	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,1-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,2,3-Trichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,2-Dibromoethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,2-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,2-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,3-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,3-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
1,4-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
2,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
2-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
4-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
4-Isopropyltoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Benzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Bromobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Bromodichloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Bromoform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Bromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Carbon tetrachloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	

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San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: INF

Lab ID: 2001360-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Chloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Chloroform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Chloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Dibromochloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Dibromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Dichlorodifluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Ethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Hexachlorobutadiene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Isopropylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
m,p-Xylene	ND	1.0	1	B0F0167	06/08/2020	06/08/20 18:02	
Methylene chloride	ND	1.0	1	B0F0167	06/08/2020	06/08/20 18:02	
n-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
n-Propylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Naphthalene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
o-Xylene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
sec-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Styrene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
tert-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Tetrachloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Toluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Trichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Trichlorofluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Vinyl chloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 18:02	
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*		B0F0167	06/08/2020	*06/08/20 18:02*	
Surrogate: 4-Bromofluorobenzene	*95.6 %*	*71 - 127*		B0F0167	06/08/2020	*06/08/20 18:02*	
Surrogate: Dibromofluoromethane	*107 %*	*66 - 147*		B0F0167	06/08/2020	*06/08/20 18:02*	
Surrogate: Toluene-d8	*98.6 %*	*77 - 138*		B0F0167	06/08/2020	*06/08/20 18:02*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: INF

Lab ID: 2001360-06

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**25**	2.0	1	B0F0192	06/08/2020	06/09/20 14:13	
Surrogate: 1,2-Dichlorobenzene-d4	*97.5 %*		*17 - 119*		B0F0192	06/08/2020	*06/09/20 14:13*	
Surrogate: 2-Fluorobiphenyl	*96.1 %*		*10 - 133*		B0F0192	06/08/2020	*06/09/20 14:13*	
Surrogate: 4-Terphenyl-d14	*108 %*		*5 - 139*		B0F0192	06/08/2020	*06/09/20 14:13*	
Surrogate: Nitrobenzene-d5	*94.4 %*		*13 - 150*		B0F0192	06/08/2020	*06/09/20 14:13*	

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San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: EW-02

Lab ID: 2001360-07

Bromide by Ion Chromatography EPA 300

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	**0.43**	0.05	1	B0F0184	06/08/2020	06/08/20 15:25	

Volatile Organic Compounds by EPA 8260B

Analyst: VW

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,1,1-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,1,2-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,1-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,1-Dichloroethene	**14**	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,1-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,2,3-Trichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,2-Dibromoethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,2-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,2-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,3-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,3-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
1,4-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
2,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
2-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
4-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
4-Isopropyltoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Benzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Bromobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Bromodichloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Bromoform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Bromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Carbon tetrachloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: EW-02

Lab ID: 2001360-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Chloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Chloroform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Chloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Dibromochloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Dibromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Dichlorodifluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Ethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Hexachlorobutadiene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Isopropylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
m,p-Xylene	ND	1.0	1	B0F0167	06/08/2020	06/08/20 17:41	
Methylene chloride	ND	1.0	1	B0F0167	06/08/2020	06/08/20 17:41	
n-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
n-Propylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Naphthalene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
o-Xylene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
sec-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Styrene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
tert-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Tetrachloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Toluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Trichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Trichlorofluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Vinyl chloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 17:41	
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*		B0F0167	06/08/2020	*06/08/20 17:41*	
Surrogate: 4-Bromofluorobenzene	*91.3 %*	*71 - 127*		B0F0167	06/08/2020	*06/08/20 17:41*	
Surrogate: Dibromofluoromethane	*108 %*	*66 - 147*		B0F0167	06/08/2020	*06/08/20 17:41*	
Surrogate: Toluene-d8	*101 %*	*77 - 138*		B0F0167	06/08/2020	*06/08/20 17:41*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: EW-02

Lab ID: 2001360-07

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**3.7**	2.0	1	B0F0192	06/08/2020	06/09/20 14:39	
Surrogate: 1,2-Dichlorobenzene-d4	*66.4 %*		*17 - 119*		B0F0192	06/08/2020	*06/09/20 14:39*	
Surrogate: 2-Fluorobiphenyl	*70.0 %*		*10 - 133*		B0F0192	06/08/2020	*06/09/20 14:39*	
Surrogate: 4-Terphenyl-d14	*83.7 %*		*5 - 139*		B0F0192	06/08/2020	*06/09/20 14:39*	
Surrogate: Nitrobenzene-d5	*68.8 %*		*13 - 150*		B0F0192	06/08/2020	*06/09/20 14:39*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: MW-29

Lab ID: 2001360-08

Bromide by Ion Chromatography EPA 300 — **Analyst: AH**

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	**0.78**	0.05	1	B0F0184	06/08/2020	06/08/20 15:37	

Volatile Organic Compounds by EPA 8260B — **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,1,1-Trichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,1,2-Trichloroethane	**0.70**	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,1-Dichloroethane	**1.5**	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,1-Dichloroethene	**140**	2.5	5	B0F0167	06/08/2020	06/08/20 18:45	
1,1-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,2,3-Trichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,2-Dibromoethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,2-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,2-Dichloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,3-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,3-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
1,4-Dichlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
2,2-Dichloropropane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
2-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
4-Chlorotoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
4-Isopropyltoluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Benzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Bromobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Bromodichloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Bromoform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Bromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Carbon tetrachloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	

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San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: MW-29

Lab ID: 2001360-08

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chlorobenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Chloroethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Chloroform	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Chloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Dibromochloromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Dibromomethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Dichlorodifluoromethane	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Ethylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Hexachlorobutadiene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Isopropylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
m,p-Xylene	ND	1.0	1	B0F0167	06/08/2020	06/08/20 19:06	
Methylene chloride	ND	1.0	1	B0F0167	06/08/2020	06/08/20 19:06	
n-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
n-Propylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Naphthalene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
o-Xylene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
sec-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Styrene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
tert-Butylbenzene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Tetrachloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Toluene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Trichloroethene	**1.6**	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Trichlorofluoromethane	**0.57**	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Vinyl chloride	ND	0.50	1	B0F0167	06/08/2020	06/08/20 19:06	
Surrogate: 1,2-Dichloroethane-d4	*110 %*	*59 - 158*		B0F0167	06/08/2020	*06/08/20 19:06*	
Surrogate: 1,2-Dichloroethane-d4	*115 %*	*59 - 158*		B0F0167	06/08/2020	*06/08/20 18:45*	
Surrogate: 4-Bromofluorobenzene	*88.5 %*	*71 - 127*		B0F0167	06/08/2020	*06/08/20 19:06*	
Surrogate: 4-Bromofluorobenzene	*91.7 %*	*71 - 127*		B0F0167	06/08/2020	*06/08/20 18:45*	
Surrogate: Dibromofluoromethane	*105 %*	*66 - 147*		B0F0167	06/08/2020	*06/08/20 19:06*	
Surrogate: Dibromofluoromethane	*111 %*	*66 - 147*		B0F0167	06/08/2020	*06/08/20 18:45*	
Surrogate: Toluene-d8	*98.9 %*	*77 - 138*		B0F0167	06/08/2020	*06/08/20 18:45*	
Surrogate: Toluene-d8	*99.6 %*	*77 - 138*		B0F0167	06/08/2020	*06/08/20 19:06*	

Certificate of Analysis

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: MW-29

Lab ID: 2001360-08

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**91**	2.0	1	B0F0192	06/08/2020	06/09/20 15:06	
Surrogate: 1,2-Dichlorobenzene-d4	*88.6 %*		*17 - 119*		B0F0192	06/08/2020	*06/09/20 15:06*	
Surrogate: 2-Fluorobiphenyl	*95.8 %*		*10 - 133*		B0F0192	06/08/2020	*06/09/20 15:06*	
Surrogate: 4-Terphenyl-d14	*103 %*		*5 - 139*		B0F0192	06/08/2020	*06/09/20 15:06*	
Surrogate: Nitrobenzene-d5	*93.1 %*		*13 - 150*		B0F0192	06/08/2020	*06/09/20 15:06*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

QUALITY CONTROL SECTION

Alkalinity, Speciated by SM 2320B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0185 - No_Prep_WC1_W										
Blank (B0F0185-BLK1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Alkalinity, Bicarbonate (as CaCO3)	ND	5.0	3.4							
Alkalinity, Carbonate (as CaCO3)	ND	5.0	3.4							
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	3.4							
Alkalinity, Total (as CaCO3)	ND	5.0	3.4							
LCS (B0F0185-BS1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Alkalinity, Total (as CaCO3)	102.570	5.0	3.4	99.9580		103	80 - 120			
Matrix Spike (B0F0185-MS1)			**Source: 2001348-01**		Prepared: 6/8/2020 Analyzed: 6/8/2020					
Alkalinity, Total (as CaCO3)	330.670	5.0	3.4	99.9580	231.680	99.0	80 - 120			
Matrix Spike Dup (B0F0185-MSD1)			**Source: 2001348-01**		Prepared: 6/8/2020 Analyzed: 6/8/2020					
Alkalinity, Total (as CaCO3)	332.140	5.0	3.4	99.9580	231.680	101	80 - 120	0.444	20	

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Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0213 - No_Prep_WC1_W										
Blank (B0F0213-BLK1)					Prepared: 6/9/2020 Analyzed: 6/10/2020					
Residue, Suspended	ND	1.0	1.0							
LCS (B0F0213-BS1)					Prepared: 6/9/2020 Analyzed: 6/10/2020					
Residue, Suspended	78.0000	10	10	93.4000		83.5	80 - 120			
Duplicate (B0F0213-DUP1)			**Source: 2001378-01**		Prepared: 6/9/2020 Analyzed: 6/10/2020					
Residue, Suspended	ND	2.0	2.0		ND			NR	10	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
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Bromide by Ion Chromatography EPA 300 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0184 - No_Prep_IC1_W										
Blank (B0F0184-BLK1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Bromide	ND	0.05	0.02							
LCS (B0F0184-BS1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Bromide	1.01200	0.05	0.02	1.00000		101	90 - 110			
Duplicate (B0F0184-DUP1)			**Source: 2001360-06**		Prepared: 6/8/2020 Analyzed: 6/8/2020					
Bromide	0.486400	0.05	0.02		0.470200			3.39	20	
Matrix Spike (B0F0184-MS1)			**Source: 2001360-06**		Prepared: 6/8/2020 Analyzed: 6/8/2020					
Bromide	2.78550	0.05	0.02	2.50000	0.470200	92.6	80 - 120			
Matrix Spike Dup (B0F0184-MSD1)			**Source: 2001360-06**		Prepared: 6/8/2020 Analyzed: 6/8/2020					
Bromide	2.73980	0.05	0.02	2.50000	0.470200	90.8	80 - 120	1.65	20	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
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San Diego , CA 92122	Reported : 06/25/2020

UV Absorption by EPA 415.3 - Quality Control

Analyte	Result (1/cm)	PQL (1/cm)	MDL (1/cm)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0162 - No_Prep_II_W										
Duplicate (B0F0162-DUP1)			**Source: 2001360-05**		Prepared: 6/5/2020 Analyzed: 6/5/2020					
UV Absorption	ND	0.01	0.01		ND				20	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
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San Diego , CA 92122	Reported : 06/25/2020

Total Organic Carbon by SM 5310B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0256 - No_Prep_II_W										
Blank (B0F0256-BLK1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Organic Carbon, Total	ND	3.0	1.3							
LCS (B0F0256-BS1)					Prepared: 6/8/2020 Analyzed: 6/11/2020					
Organic Carbon, Total	22.8800	3.0	1.3	25.0000		91.5	80 - 120			
Matrix Spike (B0F0256-MS1)			**Source: 2001359-05**		Prepared: 6/8/2020 Analyzed: 6/9/2020					
Organic Carbon, Total	24.1200	3.0	1.3	25.0000	ND	96.5	80 - 120			
Matrix Spike (B0F0256-MS2)			**Source: 2001360-04**		Prepared: 6/8/2020 Analyzed: 6/9/2020					
Organic Carbon, Total	24.4300	3.0	1.3	25.0000	ND	97.7	80 - 120			
Matrix Spike Dup (B0F0256-MSD1)			**Source: 2001359-05**		Prepared: 6/8/2020 Analyzed: 6/9/2020					
Organic Carbon, Total	46.9600	3.0	1.3	25.0000	ND	188	80 - 120	64.3	20	M2
Matrix Spike Dup (B0F0256-MSD2)			**Source: 2001360-04**		Prepared: 6/8/2020 Analyzed: 6/9/2020					
Organic Carbon, Total	42.7400	3.0	1.3	25.0000	ND	171	80 - 120	54.5	20	M2

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Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0167 - MSVOA_LL_W										
Blank (B0F0167-BLK1)							Prepared: 6/8/2020 Analyzed: 6/8/2020			
1,1,1,2-Tetrachloroethane	ND	0.50	0.11							
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,1-Dichloropropene	ND	0.50	0.13							
1,2,3-Trichloropropane	ND	0.50	0.39							
1,2,3-Trichlorobenzene	ND	0.50	0.18							
1,2,4-Trichlorobenzene	ND	0.50	0.16							
1,2,4-Trimethylbenzene	ND	0.50	0.14							
1,2-Dibromo-3-chloropropane	ND	0.50	0.41							
1,2-Dibromoethane	ND	0.50	0.24							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3,5-Trimethylbenzene	ND	0.50	0.13							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,3-Dichloropropane	ND	0.50	0.21							
1,4-Dichlorobenzene	ND	0.50	0.17							
2,2-Dichloropropane	ND	0.50	0.38							
2-Chlorotoluene	ND	0.50	0.11							
4-Chlorotoluene	ND	0.50	0.12							
4-Isopropyltoluene	ND	0.50	0.11							
Benzene	ND	0.50	0.13							
Bromobenzene	ND	0.50	0.21							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,2-Dichloroethene	ND	0.50	0.14							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Dibromomethane	ND	0.50	0.19							
Dichlorodifluoromethane	ND	0.50	0.18							
Ethylbenzene	ND	0.50	0.13							

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0167 - MSVOA_LL_W (continued)										
Blank (B0F0167-BLK1) - Continued					Prepared: 6/8/2020 Analyzed: 6/8/2020					
Hexachlorobutadiene	ND	0.50	0.15							
Isopropylbenzene	ND	0.50	0.10							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
n-Butylbenzene	ND	0.50	0.11							
n-Propylbenzene	ND	0.50	0.10							
Naphthalene	ND	0.50	0.41							
o-Xylene	ND	0.50	0.13							
sec-Butylbenzene	ND	0.50	0.09							
Styrene	ND	0.50	0.13							
tert-Butylbenzene	ND	0.50	0.09							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*26.84*			*25.0000*		*107*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*22.86*			*25.0000*		*91.4*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.22*			*25.0000*		*105*	*66 - 147*			
Surrogate: Toluene-d8	*24.12*			*25.0000*		*96.5*	*77 - 138*			
LCS (B0F0167-BS1)					Prepared: 6/8/2020 Analyzed: 6/8/2020					
1,1,1,2-Tetrachloroethane	22.2100	0.50	0.11	20.0000		111	71 - 133			
1,1,1-Trichloroethane	22.2200	0.50	0.21	20.0000		111	62 - 124			
1,1,2,2-Tetrachloroethane	20.2300	0.50	0.36	20.0000		101	50 - 131			
1,1,2-Trichloroethane	22.4500	0.50	0.25	20.0000		112	77 - 121			
1,1-Dichloroethane	22.1600	0.50	0.09	20.0000		111	52 - 130			
1,1-Dichloroethene	23.1600	0.50	0.13	20.0000		116	61 - 136			
1,1-Dichloropropene	21.7500	0.50	0.13	20.0000		109	80 - 128			
1,2,3-Trichloropropane	21.8700	0.50	0.39	20.0000		109	59 - 126			
1,2,3-Trichlorobenzene	16.5400	0.50	0.18	20.0000		82.7	69 - 138			
1,2,4-Trichlorobenzene	16.3600	0.50	0.16	20.0000		81.8	78 - 125			
1,2,4-Trimethylbenzene	21.6400	0.50	0.14	20.0000		108	70 - 126			
1,2-Dibromo-3-chloropropane	21.4600	0.50	0.41	20.0000		107	58 - 127			
1,2-Dibromoethane	21.9000	0.50	0.24	20.0000		110	76 - 120			
1,2-Dichlorobenzene	20.9300	0.50	0.20	20.0000		105	82 - 117			
1,2-Dichloroethane	22.2200	0.50	0.20	20.0000		111	66 - 126			
1,2-Dichloropropane	21.2000	0.50	0.15	20.0000		106	70 - 117			
1,3,5-Trimethylbenzene	21.0000	0.50	0.13	20.0000		105	71 - 125			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0167 - MSVOA_LL_W (continued)										
LCS (B0F0167-BS1) - Continued					Prepared: 6/8/2020 Analyzed: 6/8/2020					
1,3-Dichlorobenzene	20.3400	0.50	0.16	20.0000		102	81 - 116			
1,3-Dichloropropane	21.4600	0.50	0.21	20.0000		107	69 - 124			
1,4-Dichlorobenzene	20.7700	0.50	0.17	20.0000		104	80 - 114			
2,2-Dichloropropane	23.0200	0.50	0.38	20.0000		115	58 - 132			
2-Chlorotoluene	20.0300	0.50	0.11	20.0000		100	71 - 119			
4-Chlorotoluene	20.7300	0.50	0.12	20.0000		104	72 - 122			
4-Isopropyltoluene	21.5200	0.50	0.11	20.0000		108	69 - 126			
Benzene	21.4600	0.50	0.13	20.0000		107	80 - 116			
Bromobenzene	20.0300	0.50	0.21	20.0000		100	77 - 118			
Bromodichloromethane	21.5600	0.50	0.14	20.0000		108	73 - 118			
Bromoform	22.8900	0.50	0.20	20.0000		114	65 - 133			
Bromomethane	19.2000	0.50	0.40	20.0000		96.0	7 - 205			
Carbon tetrachloride	23.0800	0.50	0.09	20.0000		115	63 - 133			
Chlorobenzene	21.4100	0.50	0.13	20.0000		107	86 - 113			
Chloroethane	21.0800	0.50	0.15	20.0000		105	66 - 141			
Chloroform	22.0300	0.50	0.11	20.0000		110	63 - 127			
Chloromethane	19.3400	0.50	0.12	20.0000		96.7	0 - 207			
cis-1,2-Dichloroethene	21.4000	0.50	0.14	20.0000		107	64 - 126			
cis-1,3-Dichloropropene	22.7700	0.50	0.13	20.0000		114	70 - 141			
Dibromochloromethane	23.2900	0.50	0.16	20.0000		116	67 - 135			
Dibromomethane	22.7000	0.50	0.19	20.0000		114	74 - 118			
Dichlorodifluoromethane	18.4700	0.50	0.18	20.0000		92.4	14 - 181			
Ethylbenzene	21.3600	0.50	0.13	20.0000		107	77 - 118			
Hexachlorobutadiene	19.9600	0.50	0.15	20.0000		99.8	66 - 125			
Isopropylbenzene	19.8100	0.50	0.10	20.0000		99.0	68 - 137			
m,p-Xylene	42.9300	1.0	0.19	40.0000		107	78 - 126			
Methylene chloride	21.0900	1.0	0.71	20.0000		105	51 - 149			
n-Butylbenzene	19.7800	0.50	0.11	20.0000		98.9	63 - 127			
n-Propylbenzene	20.1600	0.50	0.10	20.0000		101	69 - 124			
Naphthalene	14.8700	0.50	0.41	20.0000		74.4	60 - 126			
o-Xylene	21.1100	0.50	0.13	20.0000		106	79 - 126			
sec-Butylbenzene	20.5100	0.50	0.09	20.0000		103	69 - 124			
Styrene	24.7800	0.50	0.13	20.0000		124	80 - 127			
tert-Butylbenzene	20.0400	0.50	0.09	20.0000		100	71 - 124			
Tetrachloroethene	20.9200	0.50	0.10	20.0000		105	73 - 129			
Toluene	21.1400	0.50	0.12	20.0000		106	78 - 121			
trans-1,2-Dichloroethene	22.5500	0.50	0.09	20.0000		113	58 - 141			
Trichloroethene	20.5200	0.50	0.10	20.0000		103	73 - 126			
Trichlorofluoromethane	21.7400	0.50	0.23	20.0000		109	62 - 146			
Vinyl chloride	20.9500	0.50	0.13	20.0000		105	61 - 137			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0167 - MSVOA_LL_W (continued)										
LCS (B0F0167-BS1) - Continued						Prepared: 6/8/2020 Analyzed: 6/8/2020				
Surrogate: 1,2-Dichloroethane-d4	*27.00*			*25.0000*		*108*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*24.75*			*25.0000*		*99.0*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.12*			*25.0000*		*104*	*66 - 147*			
Surrogate: Toluene-d8	*25.01*			*25.0000*		*100*	*77 - 138*			
LCS Dup (B0F0167-BSD1)						Prepared: 6/8/2020 Analyzed: 6/8/2020				
1,1,1,2-Tetrachloroethane	21.3300	0.50	0.11	20.0000		107	71 - 133	4.04	20	
1,1,1-Trichloroethane	21.3800	0.50	0.21	20.0000		107	62 - 124	3.85	20	
1,1,2,2-Tetrachloroethane	20.1700	0.50	0.36	20.0000		101	50 - 131	0.297	20	
1,1,2-Trichloroethane	22.4400	0.50	0.25	20.0000		112	77 - 121	0.0446	20	
1,1-Dichloroethane	21.3900	0.50	0.09	20.0000		107	52 - 130	3.54	20	
1,1-Dichloroethene	22.6500	0.50	0.13	20.0000		113	61 - 136	2.23	20	
1,1-Dichloropropene	21.6500	0.50	0.13	20.0000		108	80 - 128	0.461	20	
1,2,3-Trichloropropane	22.2400	0.50	0.39	20.0000		111	59 - 126	1.68	20	
1,2,3-Trichlorobenzene	15.4700	0.50	0.18	20.0000		77.4	69 - 138	6.69	20	
1,2,4-Trichlorobenzene	16.7500	0.50	0.16	20.0000		83.8	78 - 125	2.36	20	
1,2,4-Trimethylbenzene	21.0000	0.50	0.14	20.0000		105	70 - 126	3.00	20	
1,2-Dibromo-3-chloropropane	21.2100	0.50	0.41	20.0000		106	58 - 127	1.17	20	
1,2-Dibromoethane	22.7600	0.50	0.24	20.0000		114	76 - 120	3.85	20	
1,2-Dichlorobenzene	20.3100	0.50	0.20	20.0000		102	82 - 117	3.01	20	
1,2-Dichloroethane	22.3900	0.50	0.20	20.0000		112	66 - 126	0.762	20	
1,2-Dichloropropane	20.8800	0.50	0.15	20.0000		104	70 - 117	1.52	20	
1,3,5-Trimethylbenzene	20.0000	0.50	0.13	20.0000		100	71 - 125	4.88	20	
1,3-Dichlorobenzene	20.2300	0.50	0.16	20.0000		101	81 - 116	0.542	20	
1,3-Dichloropropane	21.2400	0.50	0.21	20.0000		106	69 - 124	1.03	20	
1,4-Dichlorobenzene	20.1200	0.50	0.17	20.0000		101	80 - 114	3.18	20	
2,2-Dichloropropane	21.5700	0.50	0.38	20.0000		108	58 - 132	6.50	20	
2-Chlorotoluene	19.3000	0.50	0.11	20.0000		96.5	71 - 119	3.71	20	
4-Chlorotoluene	19.6200	0.50	0.12	20.0000		98.1	72 - 122	5.50	20	
4-Isopropyltoluene	20.7400	0.50	0.11	20.0000		104	69 - 126	3.69	20	
Benzene	21.2600	0.50	0.13	20.0000		106	80 - 116	0.936	20	
Bromobenzene	19.0400	0.50	0.21	20.0000		95.2	77 - 118	5.07	20	
Bromodichloromethane	20.9100	0.50	0.14	20.0000		105	73 - 118	3.06	20	
Bromoform	22.2900	0.50	0.20	20.0000		111	65 - 133	2.66	20	
Bromomethane	19.3100	0.50	0.40	20.0000		96.6	7 - 205	0.571	20	
Carbon tetrachloride	22.7800	0.50	0.09	20.0000		114	63 - 133	1.31	20	
Chlorobenzene	20.5000	0.50	0.13	20.0000		102	86 - 113	4.34	20	
Chloroethane	21.2900	0.50	0.15	20.0000		106	66 - 141	0.991	20	
Chloroform	21.6400	0.50	0.11	20.0000		108	63 - 127	1.79	20	
Chloromethane	20.8100	0.50	0.12	20.0000		104	0 - 207	7.32	20	
cis-1,2-Dichloroethene	21.2600	0.50	0.14	20.0000		106	64 - 126	0.656	20	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0167 - MSVOA_LL_W (continued)										
LCS Dup (B0F0167-BSD1) - Continued					Prepared: 6/8/2020 Analyzed: 6/8/2020					
cis-1,3-Dichloropropene	22.3700	0.50	0.13	20.0000		112	70 - 141	1.77	20	
Dibromochloromethane	21.4000	0.50	0.16	20.0000		107	67 - 135	8.46	20	
Dibromomethane	22.7000	0.50	0.19	20.0000		114	74 - 118	0.00	20	
Dichlorodifluoromethane	16.5100	0.50	0.18	20.0000		82.6	14 - 181	11.2	20	
Ethylbenzene	20.6600	0.50	0.13	20.0000		103	77 - 118	3.33	20	
Hexachlorobutadiene	18.7300	0.50	0.15	20.0000		93.6	66 - 125	6.36	20	
Isopropylbenzene	18.6500	0.50	0.10	20.0000		93.2	68 - 137	6.03	20	
m,p-Xylene	41.8000	1.0	0.19	40.0000		104	78 - 126	2.67	20	
Methylene chloride	20.3900	1.0	0.71	20.0000		102	51 - 149	3.38	20	
n-Butylbenzene	18.9100	0.50	0.11	20.0000		94.6	63 - 127	4.50	20	
n-Propylbenzene	20.0800	0.50	0.10	20.0000		100	69 - 124	0.398	20	
Naphthalene	15.6000	0.50	0.41	20.0000		78.0	60 - 126	4.79	20	
o-Xylene	20.7800	0.50	0.13	20.0000		104	79 - 126	1.58	20	
sec-Butylbenzene	20.1300	0.50	0.09	20.0000		101	69 - 124	1.87	20	
Styrene	24.5900	0.50	0.13	20.0000		123	80 - 127	0.770	20	
tert-Butylbenzene	19.4800	0.50	0.09	20.0000		97.4	71 - 124	2.83	20	
Tetrachloroethene	20.3300	0.50	0.10	20.0000		102	73 - 129	2.86	20	
Toluene	21.0300	0.50	0.12	20.0000		105	78 - 121	0.522	20	
trans-1,2-Dichloroethene	22.0100	0.50	0.09	20.0000		110	58 - 141	2.42	20	
Trichloroethene	20.3400	0.50	0.10	20.0000		102	73 - 126	0.881	20	
Trichlorofluoromethane	20.8800	0.50	0.23	20.0000		104	62 - 146	4.04	20	
Vinyl chloride	20.1200	0.50	0.13	20.0000		101	61 - 137	4.04	20	
Surrogate: 1,2-Dichloroethane-d4	*25.92*			*25.0000*		*104*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.23*			*25.0000*		*101*	*71 - 127*			
Surrogate: Dibromofluoromethan	*24.91*			*25.0000*		*99.6*	*66 - 147*			
Surrogate: Toluene-d8	*24.57*			*25.0000*		*98.3*	*77 - 138*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0192 - MSSEMI_W										
Blank (B0F0192-BLK1)					Prepared: 6/8/2020 Analyzed: 6/9/2020					
1,4-Dioxane	ND	2.0	0.84							
Surrogate: 1,2-Dichlorobenzene-d	*68.97*			*100.000*		*69.0*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*74.12*			*100.000*		*74.1*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*77.50*			*100.000*		*77.5*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*75.50*			*100.000*		*75.5*	*13 - 150*			
LCS (B0F0192-BS1)					Prepared: 6/8/2020 Analyzed: 6/9/2020					
1,4-Dioxane	104.360	2.0	0.84	100.000		104	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*68.02*			*100.000*		*68.0*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*70.71*			*100.000*		*70.7*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*75.53*			*100.000*		*75.5*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*75.73*			*100.000*		*75.7*	*13 - 150*			
LCS Dup (B0F0192-BSD1)					Prepared: 6/8/2020 Analyzed: 6/9/2020					
1,4-Dioxane	108.120	2.0	0.84	100.000		108	75 - 155	3.54	20	
Surrogate: 1,2-Dichlorobenzene-d	*66.55*			*100.000*		*66.6*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*73.41*			*100.000*		*73.4*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*79.28*			*100.000*		*79.3*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*75.22*			*100.000*		*75.2*	*13 - 150*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0232 - MSSEMI_W										
Blank (B0F0232-BLK1)					Prepared: 6/10/2020 Analyzed: 6/10/2020					
1,4-Dioxane	ND	0.20	0.05							
Surrogate: 1,2-Dichlorobenzene-d	*0.7758*			*1.00000*		*77.6*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*0.9142*			*1.00000*		*91.4*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*1.017*			*1.00000*		*102*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*0.8043*			*1.00000*		*80.4*	*13 - 150*			
LCS (B0F0232-BS1)					Prepared: 6/10/2020 Analyzed: 6/10/2020					
1,4-Dioxane	1.29389	0.20	0.05	1.00000		129	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*0.7612*			*1.00000*		*76.1*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*0.8634*			*1.00000*		*86.3*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*0.9001*			*1.00000*		*90.0*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*0.8381*			*1.00000*		*83.8*	*13 - 150*			

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	06/25/2020

Notes and Definitions

M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

element

9240 Santa Fe Springs Road
Santa Fe Springs, CA
90670 USA

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Laboratory Report

June 25, 2020

Advanced Technology Laboratories
PO Box 92797
Long Beach, CA 90809-2797

Attn: Tina Nguyen

Element Job No:	239775
Purchase Order:	PAID – CREDIT CARD
Project Name:	2001360 / Groundwater
Samples Received:	2
Date Received:	06-08-2020

Analysis	Page
Bromate by SOP 5600, Rev 3	2

Michael Shelton
Technical Director

Robert Stead
Senior Chemist

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All samples will be disposed of 30 days past invoice unless prior arrangements have been made.

Bromate by SOP 5600, Rev 3
Ion Chromatography-Tandem Mass Spectrometry

Sample preparation: An aliquot of sample was spiked with internal standard (bromate-$^{18}O_3$), and diluted with water. The sample solutions were analyzed using IC-MS/MS.

Parts Per Billion (µg/L)

Sample ID	Result
ATL Lab#: 2001360-04 / POX	ND
ATL Lab#: 2001360-06 / INF	ND
Method Blank	ND
Detection Limit	0.5

Dates Analyzed: 06-23-2020, 06-24-2020

Quality Control Summary

Sample ID: ATL Lab#: 2001360-04 / POX

Analyte	Sample Result	Spike Conc	Spike Result	Spike % Rec	Spike Duplicate	Duplicate % Rec	RPD
Bromate	ND	5.00	5.33	107	5.78	116	8
QC Guidelines				80-120		80-120	NMT 15

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All samples will be disposed of 30 days past invoice unless prior arrangements have been made.

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 2001360

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Tina Nguyen
(Tina.Nguyen@atlglobal.com)

Sampler: Ruben Sanchez

RECEIVING LABORATORY:

Element Materials Technology
9240 Santa Fe Springs Road
Santa Fe Springs, CA 90670
Phone :(562) 948-2225
Fax: (562) 948-5850
PO#: SC14682-STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 2001360-04 (1) / POX		**Groundwater**	**06/05/20 08:15**	
Bromate_ICMS/MS_SUB	**06/22/20 17:00**	07/03/20 08:15		
[Bromate by IC-MS/MS]				
1-Poly Unpres - 125mL				
ATL Lab#: 2001360-06 / INF		**Groundwater**	**06/05/20 08:40**	
Bromate_ICMS/MS_SUB (2)	**06/22/20 17:00**	07/03/20 08:40		
[Bromate by IC-MS/MS]				
1-Poly Unpres - 125ml				

06.08.2020 CK. Also has: (1) K
(2) F

Approved by: _____ 6/5/20
ATL Project Manager — Date

Released By ATL Sample Control — Date

Released By Courier — 6/8/20 8:46 — Date

Released By — Date

Received By Courier — 6/8/20 — Date

Received By Subcontract Laboratory — 06/08/2020 AB:45 — Date

Received By — Date

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 6/5/2020
Page 1 of 1

PROJECT: Raytheon Main GETS Monthly Sample

TASK NO.: 532.15

Project Manager: Steve Netto
QA Manager: Ross Horton
Phone: 858.455.6500
Fax: 858.455.6533

Sampled By: Ruben Sanchez

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Ice	CONTAINERS: 40-ml VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	SM2540D	UV Absorption EPA 415.3 @254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270 SIM	Expected Concentration Range (ppb) for VOAs: 0 - 10	10 - 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested
2001,340-01	TB-060520	6/5/2020	8:00		X	X			X	2						X								X						X		
02	CEFF	6/5/2020	7:55	X		X			X	3					1	X								X	X					X		
03	CBT	6/5/2020	8:10	X		X			X	3					1	X								X	X					X		
04	POX	6/5/2020	8:15	X		X		X	X	5	1	1			1	X	X		X	X				X	X					X		
05	PF	6/5/2020	8:30	X				X	X	2		1	1	1					X	X	X	X								X		
06	INF	6/5/2020	8:40	X		X			X	3	2				1	X	X	X					X				X			X		
07	EW-02	6/5/2020	9:45	X		X			X	3	1				1	X		X					X			X				X		
08	MW-29	6/5/2020	10:15	X		X			X	3	1				1	X		X					X				X			X		
Total number of containers per analysis:										24	5	2	1	1	6																		

Total No. of Containers: 39

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
HHA	6-5-20 11:10		6-5-20 11:10
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
HHA	6-5-20 13:35		6.5.2020 1323

- ☐ No. of containers correct
- ☐ Received in good condition
- ☐ Custody seals secure
- ☐ Conforms to COC document

#1 1.2 °C
#2 1.4 °C
Temperature on receipt

Laboratory

Advanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

REMARKS

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY ▪ ENGINEERING

Date: 6/5/2020
Page 1 of 1

PROJECT: Raytheon Main GETS Lab Requested QC

TASK NO.: 532.15

Project Manager: Steve Netto
QA Manager: Ross Horton
Phone: 858.455.6500
Fax: 858.455.6533

Sampled By: Ruben Sanchez

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	MATRIX: Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	PRESERVATION: Nitric Acid (HNO_3)	PRESERVATION:	PRESERVATION: Sulfuric Acid (H_2SO_4)	PRESERVATION: Ice	CONTAINERS: 40-ml VOA	CONTAINERS: 125 mL Poly	CONTAINERS: 250 mL Poly	CONTAINERS: 500 Ml Poly	CONTAINERS: 250 mL Glass	CONTAINERS: 1L Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	SM2540D	nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270 SIM	Expected Concentration Range (ppb) for VOAs: 0 - 10	10 - 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2004360-03	CBT-QC	6/5/2020	8:10	X						X						1								X	X							X			
04	POX-QC	6/5/2020	8:15	X		X			X	X	4					1	X				X			X	X							X			Samples are included per
06	INF-QC	6/5/2020	8:40	X						X						1							X			X						X			laboratory request for QC
07	EW-02-QC	6/5/2020	9:45	X						X						1							X			X						X			purposes. Do not include
																																			samples or results
																																			in final report.
Total number of containers per analysis:											4					4																			Total No. of Containers: 8

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
H+A	6-5-20 11:10	H+A	6-5-20 11:10
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
H+A	6-5-20 13:35		6.5.2020 1335

#1 1.2°C
#2 1.4°C
Temperature on receipt

- ☐ No. of containers correct
- ☐ Received in good condition
- ☐ Custody seals secure
- ☐ Conforms to COC document

Instructions
completely and sign
ballpoint pen. Draw
3. Indicate the
4. Note applicable
5. Consult project QA documents for specific instructions.

Laboratory
Advanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

ADVANCED TECHNOLOGY LABORATORIES

June 25, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001468
Client Reference : Raytheon Main GETS Mid Month Sample, 532.15

Enclosed are the results for sample(s) received on June 18, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-061820	2001468-01	Lab Prepared Water	6/18/20 8:00	6/18/20 15:21
CEFF	2001468-02	Groundwater	6/18/20 11:20	6/18/20 15:21
CBT	2001468-03	Groundwater	6/18/20 11:28	6/18/20 15:21
POX	2001468-04	Groundwater	6/18/20 11:35	6/18/20 15:21
INF	2001468-05	Groundwater	6/18/20 11:43	6/18/20 15:21
EW-02	2001468-06	Groundwater	6/18/20 12:40	6/18/20 15:21
MW-29	2001468-07	Groundwater	6/18/20 12:58	6/18/20 15:21

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: TB-061820

Lab ID: 2001468-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,1,1-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,1,2-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,1-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,1-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,1-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,2,3-Trichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,2-Dibromoethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,2-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,2-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,3-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,3-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
1,4-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
2,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
2-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
4-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
4-Isopropyltoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Benzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Bromobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Bromodichloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Bromoform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Bromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Carbon tetrachloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Chlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Chloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Chloroform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Chloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: TB-061820

Lab ID: 2001468-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromochloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Dibromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Dichlorodifluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Ethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Hexachlorobutadiene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Isopropylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
m,p-Xylene	ND	1.0	1	B0F0401	06/18/2020	06/18/20 16:33	
Methylene chloride	ND	1.0	1	B0F0401	06/18/2020	06/18/20 16:33	
n-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
n-Propylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Naphthalene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
o-Xylene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
sec-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Styrene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
tert-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Tetrachloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Toluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Trichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Trichlorofluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Vinyl chloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:33	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*		B0F0401	06/18/2020	*06/18/20 16:33*	
Surrogate: 4-Bromofluorobenzene	*89.0 %*	*71 - 127*		B0F0401	06/18/2020	*06/18/20 16:33*	
Surrogate: Dibromofluoromethane	*112 %*	*66 - 147*		B0F0401	06/18/2020	*06/18/20 16:33*	
Surrogate: Toluene-d8	*101 %*	*77 - 138*		B0F0401	06/18/2020	*06/18/20 16:33*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CEFF

Lab ID: 2001468-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,1,1-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,1,2-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,1-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,1-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,1-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,2,3-Trichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,2-Dibromoethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,2-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,2-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,3-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,3-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
1,4-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
2,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
2-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
4-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
4-Isopropyltoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Benzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Bromobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Bromodichloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Bromoform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Bromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Carbon tetrachloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Chlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Chloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Chloroform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Chloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CEFF

Lab ID: 2001468-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromochloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Dibromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Dichlorodifluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Ethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Hexachlorobutadiene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Isopropylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
m,p-Xylene	ND	1.0	1	B0F0401	06/18/2020	06/18/20 16:54	
Methylene chloride	ND	1.0	1	B0F0401	06/18/2020	06/18/20 16:54	
n-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
n-Propylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Naphthalene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
o-Xylene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
sec-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Styrene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
tert-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Tetrachloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Toluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Trichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Trichlorofluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Vinyl chloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 16:54	
Surrogate: 1,2-Dichloroethane-d4	*115 %*	*59 - 158*		B0F0401	06/18/2020	*06/18/20 16:54*	
Surrogate: 4-Bromofluorobenzene	*90.3 %*	*71 - 127*		B0F0401	06/18/2020	*06/18/20 16:54*	
Surrogate: Dibromofluoromethane	*110 %*	*66 - 147*		B0F0401	06/18/2020	*06/18/20 16:54*	
Surrogate: Toluene-d8	*102 %*	*77 - 138*		B0F0401	06/18/2020	*06/18/20 16:54*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CEFF

Lab ID: 2001468-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0F0489	06/22/2020	06/22/20 15:00	
Surrogate: 1,2-Dichlorobenzene-d4	*99.8 %*		*13 - 99*		B0F0489	06/22/2020	*06/22/20 15:00*	S1
Surrogate: 2-Fluorobiphenyl	*103 %*		*8 - 111*		B0F0489	06/22/2020	*06/22/20 15:00*	
Surrogate: 4-Terphenyl-d14	*91.7 %*		*12 - 113*		B0F0489	06/22/2020	*06/22/20 15:00*	
Surrogate: Nitrobenzene-d5	*104 %*		*15 - 121*		B0F0489	06/22/2020	*06/22/20 15:00*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CBT

Lab ID: 2001468-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,1,1-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,1,2-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,1-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,1-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,1-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,2,3-Trichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,2-Dibromoethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,2-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,2-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,3-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,3-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
1,4-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
2,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
2-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
4-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
4-Isopropyltoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Benzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Bromobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Bromodichloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Bromoform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Bromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Carbon tetrachloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Chlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Chloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Chloroform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Chloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: CBT

Lab ID: 2001468-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromochloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Dibromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Dichlorodifluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Ethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Hexachlorobutadiene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Isopropylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
m,p-Xylene	ND	1.0	1	B0F0401	06/18/2020	06/18/20 17:16	
Methylene chloride	ND	1.0	1	B0F0401	06/18/2020	06/18/20 17:16	
n-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
n-Propylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Naphthalene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
o-Xylene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
sec-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Styrene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
tert-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Tetrachloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Toluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Trichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Trichlorofluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Vinyl chloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:16	
Surrogate: 1,2-Dichloroethane-d4	*116 %*	*59 - 158*		B0F0401	06/18/2020	*06/18/20 17:16*	
Surrogate: 4-Bromofluorobenzene	*88.9 %*	*71 - 127*		B0F0401	06/18/2020	*06/18/20 17:16*	
Surrogate: Dibromofluoromethane	*108 %*	*66 - 147*		B0F0401	06/18/2020	*06/18/20 17:16*	
Surrogate: Toluene-d8	*96.8 %*	*77 - 138*		B0F0401	06/18/2020	*06/18/20 17:16*	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
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Client Sample ID: CBT

Lab ID: 2001468-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0F0489	06/22/2020	06/22/20 15:27	
Surrogate: 1,2-Dichlorobenzene-d4	*107 %*		*13 - 99*		B0F0489	06/22/2020	*06/22/20 15:27*	S1
Surrogate: 2-Fluorobiphenyl	*109 %*		*8 - 111*		B0F0489	06/22/2020	*06/22/20 15:27*	
Surrogate: 4-Terphenyl-d14	*94.4 %*		*12 - 113*		B0F0489	06/22/2020	*06/22/20 15:27*	
Surrogate: Nitrobenzene-d5	*113 %*		*15 - 121*		B0F0489	06/22/2020	*06/22/20 15:27*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: POX

Lab ID: 2001468-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,1,1-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,1,2-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,1-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,1-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,1-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,2,3-Trichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,2-Dibromoethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,2-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,2-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,3-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,3-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
1,4-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
2,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
2-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
4-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
4-Isopropyltoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Benzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Bromobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Bromodichloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Bromoform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Bromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Carbon tetrachloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Chlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Chloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Chloroform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Chloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: POX

Lab ID: 2001468-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromochloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Dibromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Dichlorodifluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Ethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Hexachlorobutadiene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Isopropylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
m,p-Xylene	ND	1.0	1	B0F0401	06/18/2020	06/18/20 17:37	
Methylene chloride	ND	1.0	1	B0F0401	06/18/2020	06/18/20 17:37	
n-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
n-Propylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Naphthalene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
o-Xylene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
sec-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Styrene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
tert-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Tetrachloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Toluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Trichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Trichlorofluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Vinyl chloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:37	
Surrogate: 1,2-Dichloroethane-d4	*138 %*	*59 - 158*		B0F0401	06/18/2020	*06/18/20 17:37*	
Surrogate: 4-Bromofluorobenzene	*91.4 %*	*71 - 127*		B0F0401	06/18/2020	*06/18/20 17:37*	
Surrogate: Dibromofluoromethane	*116 %*	*66 - 147*		B0F0401	06/18/2020	*06/18/20 17:37*	
Surrogate: Toluene-d8	*103 %*	*77 - 138*		B0F0401	06/18/2020	*06/18/20 17:37*	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
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Client Sample ID: POX

Lab ID: 2001468-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0F0489	06/22/2020	06/22/20 15:55	
Surrogate: 1,2-Dichlorobenzene-d4	*91.7 %*		*13 - 99*		B0F0489	06/22/2020	*06/22/20 15:55*	
Surrogate: 2-Fluorobiphenyl	*101 %*		*8 - 111*		B0F0489	06/22/2020	*06/22/20 15:55*	
Surrogate: 4-Terphenyl-d14	*93.0 %*		*12 - 113*		B0F0489	06/22/2020	*06/22/20 15:55*	
Surrogate: Nitrobenzene-d5	*101 %*		*15 - 121*		B0F0489	06/22/2020	*06/22/20 15:55*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: INF

Lab ID: 2001468-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,1,1-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,1,2-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,1-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,1-Dichloroethene	**46**	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,1-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,2,3-Trichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,2-Dibromoethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,2-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,2-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,3-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,3-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
1,4-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
2,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
2-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
4-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
4-Isopropyltoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Benzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Bromobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Bromodichloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Bromoform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Bromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Carbon tetrachloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Chlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Chloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Chloroform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Chloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
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Client Sample ID: INF

Lab ID: 2001468-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromochloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Dibromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Dichlorodifluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Ethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Hexachlorobutadiene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Isopropylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
m,p-Xylene	ND	1.0	1	B0F0401	06/18/2020	06/18/20 18:20	
Methylene chloride	ND	1.0	1	B0F0401	06/18/2020	06/18/20 18:20	
n-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
n-Propylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Naphthalene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
o-Xylene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
sec-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Styrene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
tert-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Tetrachloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Toluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Trichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Trichlorofluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Vinyl chloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 18:20	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*		B0F0401	06/18/2020	*06/18/20 18:20*	
Surrogate: 4-Bromofluorobenzene	*91.7 %*	*71 - 127*		B0F0401	06/18/2020	*06/18/20 18:20*	
Surrogate: Dibromofluoromethane	*109 %*	*66 - 147*		B0F0401	06/18/2020	*06/18/20 18:20*	
Surrogate: Toluene-d8	*100 %*	*77 - 138*		B0F0401	06/18/2020	*06/18/20 18:20*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: INF

Lab ID: 2001468-05

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**21**	2.0	1	B0F0516	06/23/2020	06/23/20 22:23	
Surrogate: 1,2-Dichlorobenzene-d4	*67.4 %*		*17 - 119*		B0F0516	06/23/2020	*06/23/20 22:23*	
Surrogate: 2-Fluorobiphenyl	*73.6 %*		*10 - 133*		B0F0516	06/23/2020	*06/23/20 22:23*	
Surrogate: 4-Terphenyl-d14	*102 %*		*5 - 139*		B0F0516	06/23/2020	*06/23/20 22:23*	
Surrogate: Nitrobenzene-d5	*73.4 %*		*13 - 150*		B0F0516	06/23/2020	*06/23/20 22:23*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: EW-02

Lab ID: 2001468-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,1,1-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,1,2-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,1-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,1-Dichloroethene	**17**	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,1-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,2,3-Trichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,2-Dibromoethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,2-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,2-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,3-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,3-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
1,4-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
2,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
2-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
4-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
4-Isopropyltoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Benzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Bromobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Bromodichloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Bromoform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Bromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Carbon tetrachloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Chlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Chloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Chloroform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Chloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: EW-02

Lab ID: 2001468-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromochloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Dibromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Dichlorodifluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Ethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Hexachlorobutadiene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Isopropylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
m,p-Xylene	ND	1.0	1	B0F0401	06/18/2020	06/18/20 17:58	
Methylene chloride	ND	1.0	1	B0F0401	06/18/2020	06/18/20 17:58	
n-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
n-Propylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Naphthalene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
o-Xylene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
sec-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Styrene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
tert-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Tetrachloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Toluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Trichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Trichlorofluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Vinyl chloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 17:58	
Surrogate: 1,2-Dichloroethane-d4	*120 %*	*59 - 158*		B0F0401	06/18/2020	*06/18/20 17:58*	
Surrogate: 4-Bromofluorobenzene	*92.2 %*	*71 - 127*		B0F0401	06/18/2020	*06/18/20 17:58*	
Surrogate: Dibromofluoromethane	*113 %*	*66 - 147*		B0F0401	06/18/2020	*06/18/20 17:58*	
Surrogate: Toluene-d8	*101 %*	*77 - 138*		B0F0401	06/18/2020	*06/18/20 17:58*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: EW-02

Lab ID: 2001468-06

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**8.3**	2.0	1	B0F0516	06/23/2020	06/23/20 22:49	
Surrogate: 1,2-Dichlorobenzene-d4	*51.0 %*		*17 - 119*		B0F0516	06/23/2020	*06/23/20 22:49*	
Surrogate: 2-Fluorobiphenyl	*60.2 %*		*10 - 133*		B0F0516	06/23/2020	*06/23/20 22:49*	
Surrogate: 4-Terphenyl-d14	*92.5 %*		*5 - 139*		B0F0516	06/23/2020	*06/23/20 22:49*	
Surrogate: Nitrobenzene-d5	*60.6 %*		*13 - 150*		B0F0516	06/23/2020	*06/23/20 22:49*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: MW-29

Lab ID: 2001468-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,1,1-Trichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,1,2-Trichloroethane	**0.62**	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,1-Dichloroethane	**1.5**	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,1-Dichloroethene	**150**	2.5	5	B0F0401	06/18/2020	06/18/20 19:02	
1,1-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,2,3-Trichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,2,3-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,2,4-Trichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,2,4-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,2-Dibromoethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,2-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,2-Dichloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,3,5-Trimethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,3-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,3-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
1,4-Dichlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
2,2-Dichloropropane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
2-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
4-Chlorotoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
4-Isopropyltoluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Benzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Bromobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Bromodichloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Bromoform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Bromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Carbon tetrachloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Chlorobenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Chloroethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Chloroform	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Chloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
cis-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
cis-1,3-Dichloropropene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: MW-29

Lab ID: 2001468-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromochloromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Dibromomethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Dichlorodifluoromethane	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Ethylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Hexachlorobutadiene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Isopropylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
m,p-Xylene	ND	1.0	1	B0F0401	06/18/2020	06/18/20 19:23	
Methylene chloride	ND	1.0	1	B0F0401	06/18/2020	06/18/20 19:23	
n-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
n-Propylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Naphthalene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
o-Xylene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
sec-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Styrene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
tert-Butylbenzene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Tetrachloroethene	**0.51**	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Toluene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
trans-1,2-Dichloroethene	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Trichloroethene	**1.4**	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Trichlorofluoromethane	**0.69**	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Vinyl chloride	ND	0.50	1	B0F0401	06/18/2020	06/18/20 19:23	
Surrogate: 1,2-Dichloroethane-d4	*117 %*	*59 - 158*		B0F0401	06/18/2020	*06/18/20 19:02*	
Surrogate: 1,2-Dichloroethane-d4	*123 %*	*59 - 158*		B0F0401	06/18/2020	*06/18/20 19:23*	
Surrogate: 4-Bromofluorobenzene	*88.2 %*	*71 - 127*		B0F0401	06/18/2020	*06/18/20 19:23*	
Surrogate: 4-Bromofluorobenzene	*90.1 %*	*71 - 127*		B0F0401	06/18/2020	*06/18/20 19:02*	
Surrogate: Dibromofluoromethane	*112 %*	*66 - 147*		B0F0401	06/18/2020	*06/18/20 19:02*	
Surrogate: Dibromofluoromethane	*113 %*	*66 - 147*		B0F0401	06/18/2020	*06/18/20 19:23*	
Surrogate: Toluene-d8	*99.5 %*	*77 - 138*		B0F0401	06/18/2020	*06/18/20 19:02*	
Surrogate: Toluene-d8	*100 %*	*77 - 138*		B0F0401	06/18/2020	*06/18/20 19:23*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Client Sample ID: MW-29

Lab ID: 2001468-07

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**83**	2.0	1	B0F0516	06/23/2020	06/23/20 23:15	
Surrogate: 1,2-Dichlorobenzene-d4	*61.4 %*		*17 - 119*		B0F0516	06/23/2020	*06/23/20 23:15*	
Surrogate: 2-Fluorobiphenyl	*71.1 %*		*10 - 133*		B0F0516	06/23/2020	*06/23/20 23:15*	
Surrogate: 4-Terphenyl-d14	*101 %*		*5 - 139*		B0F0516	06/23/2020	*06/23/20 23:15*	
Surrogate: Nitrobenzene-d5	*69.3 %*		*13 - 150*		B0F0516	06/23/2020	*06/23/20 23:15*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0401 - MSVOA_LL_W										
Blank (B0F0401-BLK1)					Prepared: 6/18/2020 Analyzed: 6/18/2020					
1,1,1,2-Tetrachloroethane	ND	0.50	0.11							
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,1-Dichloropropene	ND	0.50	0.13							
1,2,3-Trichloropropane	ND	0.50	0.39							
1,2,3-Trichlorobenzene	ND	0.50	0.18							
1,2,4-Trichlorobenzene	ND	0.50	0.16							
1,2,4-Trimethylbenzene	ND	0.50	0.14							
1,2-Dibromo-3-chloropropane	ND	0.50	0.41							
1,2-Dibromoethane	ND	0.50	0.24							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3,5-Trimethylbenzene	ND	0.50	0.13							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,3-Dichloropropane	ND	0.50	0.21							
1,4-Dichlorobenzene	ND	0.50	0.17							
2,2-Dichloropropane	ND	0.50	0.38							
2-Chlorotoluene	ND	0.50	0.11							
4-Chlorotoluene	ND	0.50	0.12							
4-Isopropyltoluene	ND	0.50	0.11							
Benzene	ND	0.50	0.13							
Bromobenzene	ND	0.50	0.21							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,2-Dichloroethene	ND	0.50	0.14							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Dibromomethane	ND	0.50	0.19							

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0401 - MSVOA_LL_W (continued)										
Blank (B0F0401-BLK1) - Continued						Prepared: 6/18/2020 Analyzed: 6/18/2020				
Dichlorodifluoromethane	ND	0.50	0.18							
Ethylbenzene	ND	0.50	0.13							
Hexachlorobutadiene	ND	0.50	0.15							
Isopropylbenzene	ND	0.50	0.10							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
n-Butylbenzene	ND	0.50	0.11							
n-Propylbenzene	ND	0.50	0.10							
Naphthalene	ND	0.50	0.41							
o-Xylene	ND	0.50	0.13							
sec-Butylbenzene	ND	0.50	0.09							
Styrene	ND	0.50	0.13							
tert-Butylbenzene	ND	0.50	0.09							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*28.66*			*25.0000*		*115*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*23.10*			*25.0000*		*92.4*	*71 - 127*			
Surrogate: Dibromofluoromethan	*27.87*			*25.0000*		*111*	*66 - 147*			
Surrogate: Toluene-d8	*24.76*			*25.0000*		*99.0*	*77 - 138*			
LCS (B0F0401-BS1)						Prepared: 6/18/2020 Analyzed: 6/18/2020				
1,1,1,2-Tetrachloroethane	20.6100	0.50	0.11	20.0000		103	71 - 133			
1,1,1-Trichloroethane	21.0600	0.50	0.21	20.0000		105	62 - 124			
1,1,2,2-Tetrachloroethane	19.9900	0.50	0.36	20.0000		100	50 - 131			
1,1,2-Trichloroethane	21.7600	0.50	0.25	20.0000		109	77 - 121			
1,1-Dichloroethane	23.0900	0.50	0.09	20.0000		115	52 - 130			
1,1-Dichloroethene	22.5800	0.50	0.13	20.0000		113	61 - 136			
1,1-Dichloropropene	21.3100	0.50	0.13	20.0000		107	80 - 128			
1,2,3-Trichloropropane	22.4700	0.50	0.39	20.0000		112	59 - 126			
1,2,3-Trichlorobenzene	14.9300	0.50	0.18	20.0000		74.6	69 - 138			
1,2,4-Trichlorobenzene	15.7000	0.50	0.16	20.0000		78.5	78 - 125			
1,2,4-Trimethylbenzene	21.7400	0.50	0.14	20.0000		109	70 - 126			
1,2-Dibromo-3-chloropropane	21.1600	0.50	0.41	20.0000		106	58 - 127			
1,2-Dibromoethane	20.9200	0.50	0.24	20.0000		105	76 - 120			
1,2-Dichlorobenzene	21.0600	0.50	0.20	20.0000		105	82 - 117			
1,2-Dichloroethane	21.4300	0.50	0.20	20.0000		107	66 - 126			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0401 - MSVOA_LL_W (continued)										
LCS (B0F0401-BS1) - Continued					Prepared: 6/18/2020 Analyzed: 6/18/2020					
1,2-Dichloropropane	22.4100	0.50	0.15	20.0000		112	70 - 117			
1,3,5-Trimethylbenzene	20.5900	0.50	0.13	20.0000		103	71 - 125			
1,3-Dichlorobenzene	20.3900	0.50	0.16	20.0000		102	81 - 116			
1,3-Dichloropropane	22.4800	0.50	0.21	20.0000		112	69 - 124			
1,4-Dichlorobenzene	20.2600	0.50	0.17	20.0000		101	80 - 114			
2,2-Dichloropropane	22.4400	0.50	0.38	20.0000		112	58 - 132			
2-Chlorotoluene	20.3400	0.50	0.11	20.0000		102	71 - 119			
4-Chlorotoluene	21.6400	0.50	0.12	20.0000		108	72 - 122			
4-Isopropyltoluene	21.4800	0.50	0.11	20.0000		107	69 - 126			
Benzene	22.9200	0.50	0.13	20.0000		115	80 - 116			
Bromobenzene	19.0600	0.50	0.21	20.0000		95.3	77 - 118			
Bromodichloromethane	21.3600	0.50	0.14	20.0000		107	73 - 118			
Bromoform	20.2100	0.50	0.20	20.0000		101	65 - 133			
Bromomethane	19.6900	0.50	0.40	20.0000		98.4	7 - 205			
Carbon tetrachloride	20.6100	0.50	0.09	20.0000		103	63 - 133			
Chlorobenzene	21.1000	0.50	0.13	20.0000		106	86 - 113			
Chloroethane	23.2300	0.50	0.15	20.0000		116	66 - 141			
Chloroform	22.9200	0.50	0.11	20.0000		115	63 - 127			
Chloromethane	19.8700	0.50	0.12	20.0000		99.4	0 - 207			
cis-1,2-Dichloroethene	22.7300	0.50	0.14	20.0000		114	64 - 126			
cis-1,3-Dichloropropene	23.1300	0.50	0.13	20.0000		116	70 - 141			
Dibromochloromethane	21.9200	0.50	0.16	20.0000		110	67 - 135			
Dibromomethane	20.5400	0.50	0.19	20.0000		103	74 - 118			
Dichlorodifluoromethane	12.6400	0.50	0.18	20.0000		63.2	14 - 181			
Ethylbenzene	21.8300	0.50	0.13	20.0000		109	77 - 118			
Hexachlorobutadiene	18.5200	0.50	0.15	20.0000		92.6	66 - 125			
Isopropylbenzene	19.6700	0.50	0.10	20.0000		98.4	68 - 137			
m,p-Xylene	43.9300	1.0	0.19	40.0000		110	78 - 126			
Methylene chloride	23.1800	1.0	0.71	20.0000		116	51 - 149			
n-Butylbenzene	20.1500	0.50	0.11	20.0000		101	63 - 127			
n-Propylbenzene	21.1900	0.50	0.10	20.0000		106	69 - 124			
Naphthalene	14.0100	0.50	0.41	20.0000		70.0	60 - 126			
o-Xylene	21.7300	0.50	0.13	20.0000		109	79 - 126			
sec-Butylbenzene	20.6500	0.50	0.09	20.0000		103	69 - 124			
Styrene	24.8900	0.50	0.13	20.0000		124	80 - 127			
tert-Butylbenzene	19.0400	0.50	0.09	20.0000		95.2	71 - 124			
Tetrachloroethene	19.9100	0.50	0.10	20.0000		99.6	73 - 129			
Toluene	22.4300	0.50	0.12	20.0000		112	78 - 121			
trans-1,2-Dichloroethene	22.7500	0.50	0.09	20.0000		114	58 - 141			
Trichloroethene	19.9200	0.50	0.10	20.0000		99.6	73 - 126			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0401 - MSVOA_LL_W (continued)										
LCS (B0F0401-BS1) - Continued					Prepared: 6/18/2020 Analyzed: 6/18/2020					
Trichlorofluoromethane	19.0700	0.50	0.23	20.0000		95.4	62 - 146			
Vinyl chloride	20.6100	0.50	0.13	20.0000		103	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*26.35*			*25.0000*		*105*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.37*			*25.0000*		*101*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.27*			*25.0000*		*105*	*66 - 147*			
Surrogate: Toluene-d8	*26.17*			*25.0000*		*105*	*77 - 138*			
LCS Dup (B0F0401-BSD1)					Prepared: 6/18/2020 Analyzed: 6/18/2020					
1,1,1,2-Tetrachloroethane	20.5100	0.50	0.11	20.0000		103	71 - 133	0.486	20	
1,1,1-Trichloroethane	20.3200	0.50	0.21	20.0000		102	62 - 124	3.58	20	
1,1,2,2-Tetrachloroethane	20.6800	0.50	0.36	20.0000		103	50 - 131	3.39	20	
1,1,2-Trichloroethane	22.3900	0.50	0.25	20.0000		112	77 - 121	2.85	20	
1,1-Dichloroethane	22.4600	0.50	0.09	20.0000		112	52 - 130	2.77	20	
1,1-Dichloroethene	22.1200	0.50	0.13	20.0000		111	61 - 136	2.06	20	
1,1-Dichloropropene	21.5500	0.50	0.13	20.0000		108	80 - 128	1.12	20	
1,2,3-Trichloropropane	21.6200	0.50	0.39	20.0000		108	59 - 126	3.86	20	
1,2,3-Trichlorobenzene	15.3400	0.50	0.18	20.0000		76.7	69 - 138	2.71	20	
1,2,4-Trichlorobenzene	16.1600	0.50	0.16	20.0000		80.8	78 - 125	2.89	20	
1,2,4-Trimethylbenzene	21.2900	0.50	0.14	20.0000		106	70 - 126	2.09	20	
1,2-Dibromo-3-chloropropane	21.9800	0.50	0.41	20.0000		110	58 - 127	3.80	20	
1,2-Dibromoethane	21.6000	0.50	0.24	20.0000		108	76 - 120	3.20	20	
1,2-Dichlorobenzene	20.7300	0.50	0.20	20.0000		104	82 - 117	1.58	20	
1,2-Dichloroethane	21.9300	0.50	0.20	20.0000		110	66 - 126	2.31	20	
1,2-Dichloropropane	22.6300	0.50	0.15	20.0000		113	70 - 117	0.977	20	
1,3,5-Trimethylbenzene	20.3800	0.50	0.13	20.0000		102	71 - 125	1.03	20	
1,3-Dichlorobenzene	20.2800	0.50	0.16	20.0000		101	81 - 116	0.541	20	
1,3-Dichloropropane	22.3900	0.50	0.21	20.0000		112	69 - 124	0.401	20	
1,4-Dichlorobenzene	20.4800	0.50	0.17	20.0000		102	80 - 114	1.08	20	
2,2-Dichloropropane	22.2400	0.50	0.38	20.0000		111	58 - 132	0.895	20	
2-Chlorotoluene	20.0600	0.50	0.11	20.0000		100	71 - 119	1.39	20	
4-Chlorotoluene	20.7000	0.50	0.12	20.0000		104	72 - 122	4.44	20	
4-Isopropyltoluene	20.9400	0.50	0.11	20.0000		105	69 - 126	2.55	20	
Benzene	22.9900	0.50	0.13	20.0000		115	80 - 116	0.305	20	
Bromobenzene	18.6700	0.50	0.21	20.0000		93.4	77 - 118	2.07	20	
Bromodichloromethane	21.3600	0.50	0.14	20.0000		107	73 - 118	0.00	20	
Bromoform	20.9100	0.50	0.20	20.0000		105	65 - 133	3.40	20	
Bromomethane	18.6100	0.50	0.40	20.0000		93.0	7 - 205	5.64	20	
Carbon tetrachloride	20.6500	0.50	0.09	20.0000		103	63 - 133	0.194	20	
Chlorobenzene	20.9500	0.50	0.13	20.0000		105	86 - 113	0.713	20	
Chloroethane	22.9200	0.50	0.15	20.0000		115	66 - 141	1.34	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0401 - MSVOA_LL_W (continued)										
LCS Dup (B0F0401-BSD1) - Continued					Prepared: 6/18/2020 Analyzed: 6/18/2020					
Chloroform	23.1300	0.50	0.11	20.0000		116	63 - 127	0.912	20	
Chloromethane	20.3200	0.50	0.12	20.0000		102	0 - 207	2.24	20	
cis-1,2-Dichloroethene	22.8800	0.50	0.14	20.0000		114	64 - 126	0.658	20	
cis-1,3-Dichloropropene	23.2100	0.50	0.13	20.0000		116	70 - 141	0.345	20	
Dibromochloromethane	21.2700	0.50	0.16	20.0000		106	67 - 135	3.01	20	
Dibromomethane	21.0500	0.50	0.19	20.0000		105	74 - 118	2.45	20	
Dichlorodifluoromethane	12.1100	0.50	0.18	20.0000		60.6	14 - 181	4.28	20	
Ethylbenzene	21.3100	0.50	0.13	20.0000		107	77 - 118	2.41	20	
Hexachlorobutadiene	18.1400	0.50	0.15	20.0000		90.7	66 - 125	2.07	20	
Isopropylbenzene	19.1900	0.50	0.10	20.0000		96.0	68 - 137	2.47	20	
m,p-Xylene	43.1300	1.0	0.19	40.0000		108	78 - 126	1.84	20	
Methylene chloride	22.5700	1.0	0.71	20.0000		113	51 - 149	2.67	20	
n-Butylbenzene	20.0800	0.50	0.11	20.0000		100	63 - 127	0.348	20	
n-Propylbenzene	20.5300	0.50	0.10	20.0000		103	69 - 124	3.16	20	
Naphthalene	14.2600	0.50	0.41	20.0000		71.3	60 - 126	1.77	20	
o-Xylene	21.3300	0.50	0.13	20.0000		107	79 - 126	1.86	20	
sec-Butylbenzene	20.3100	0.50	0.09	20.0000		102	69 - 124	1.66	20	
Styrene	25.2000	0.50	0.13	20.0000		126	80 - 127	1.24	20	
tert-Butylbenzene	19.0600	0.50	0.09	20.0000		95.3	71 - 124	0.105	20	
Tetrachloroethene	19.1600	0.50	0.10	20.0000		95.8	73 - 129	3.84	20	
Toluene	22.0400	0.50	0.12	20.0000		110	78 - 121	1.75	20	
trans-1,2-Dichloroethene	22.6500	0.50	0.09	20.0000		113	58 - 141	0.441	20	
Trichloroethene	19.5000	0.50	0.10	20.0000		97.5	73 - 126	2.13	20	
Trichlorofluoromethane	18.9700	0.50	0.23	20.0000		94.8	62 - 146	0.526	20	
Vinyl chloride	19.8900	0.50	0.13	20.0000		99.4	61 - 137	3.56	20	
Surrogate: 1,2-Dichloroethane-d4	*26.71*			*25.0000*		*107*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.09*			*25.0000*		*100*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.10*			*25.0000*		*104*	*66 - 147*			
Surrogate: Toluene-d8	*25.53*			*25.0000*		*102*	*77 - 138*			

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1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0516 - MSSEMI_W										
Blank (B0F0516-BLK1)					Prepared: 6/23/2020 Analyzed: 6/23/2020					
1,4-Dioxane	ND	2.0	0.84							
Surrogate: 1,2-Dichlorobenzene-d	*71.66*			*100.000*		*71.7*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*76.61*			*100.000*		*76.6*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*106.6*			*100.000*		*107*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*78.18*			*100.000*		*78.2*	*13 - 150*			
LCS (B0F0516-BS1)					Prepared: 6/23/2020 Analyzed: 6/23/2020					
1,4-Dioxane	106.050	2.0	0.84	100.000		106	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*59.01*			*100.000*		*59.0*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*71.72*			*100.000*		*71.7*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*94.76*			*100.000*		*94.8*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*84.54*			*100.000*		*84.5*	*13 - 150*			
LCS Dup (B0F0516-BSD1)					Prepared: 6/23/2020 Analyzed: 6/23/2020					
1,4-Dioxane	108.990	2.0	0.84	100.000		109	75 - 155	2.73	20	
Surrogate: 1,2-Dichlorobenzene-d	*55.88*			*100.000*		*55.9*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*72.98*			*100.000*		*73.0*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*84.76*			*100.000*		*84.8*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*76.61*			*100.000*		*76.6*	*13 - 150*			

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
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1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0F0489 - MSSEMI_W										
Blank (B0F0489-BLK1)					Prepared: 6/22/2020 Analyzed: 6/22/2020					
1,4-Dioxane	ND	0.20	0.05							
Surrogate: 1,2-Dichlorobenzene-d	*0.7827*			*1.00000*		*78.3*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.9132*			*1.00000*		*91.3*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.8748*			*1.00000*		*87.5*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.9095*			*1.00000*		*90.9*	*15 - 121*			
LCS (B0F0489-BS1)					Prepared: 6/22/2020 Analyzed: 6/22/2020					
1,4-Dioxane	1.32868	0.20	0.05	1.00000		133	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*0.7690*			*1.00000*		*76.9*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.8491*			*1.00000*		*84.9*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.8675*			*1.00000*		*86.8*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.7908*			*1.00000*		*79.1*	*15 - 121*			
LCS Dup (B0F0489-BSD1)					Prepared: 6/22/2020 Analyzed: 6/22/2020					
1,4-Dioxane	1.36840	0.20	0.05	1.00000		137	75 - 155	2.95	20	
Surrogate: 1,2-Dichlorobenzene-d	*0.6792*			*1.00000*		*67.9*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.7458*			*1.00000*		*74.6*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.7555*			*1.00000*		*75.6*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.7031*			*1.00000*		*70.3*	*15 - 121*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 06/25/2020

Notes and Definitions

S1	Surrogate recovery was above laboratory acceptance limit. No associated target analyte was detected in the sample.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 6/18/2020
Page 1 of 1

PROJECT: Raytheon Main GETS Mid Month Sample

TASK NO.: 532.15

Project Manager Steve Netto
QA Manager Ross Horton
Phone 858.455.6500
Fax 858.455.6533

Sampled By: Ruben Sanchez

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Ice	CONTAINERS: 40-ml VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	Total Suspended Solids by SM2540D	UV Absorption EPA 415.3 @254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270C SIM	Expected Concentration Range (ppb) for VOAs: 0 - 10	10 - 100	100 - 1,000	>1,000	SPECIAL HANDLING: 24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2001468-01	TB-061820	6/18/2020	8:00		X	X			X	2						X									X						X			
-02	CEFF	6/18/2020	11:20	X		X			X	3					1	X								X	X							X			
-03	CBT	6/18/2020	11:28	X		X			X	3					1	X								X	X							X			
-04	POX	6/18/2020	11:35	X		X			X	3					1	X								X	X							X			
-05	INF	6/18/2020	11:43	X		X			X	3					1	X							X				X					X			
-06	EW-02	6/18/2020	12:40	X		X			X	3					1	X							X			X						X			
-07	MW-29	6/18/2020	12:58	X		X			X	3					1	X							X				X					X			
Total number of containers per analysis:										20					6																			Total No. of Containers: 26

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
H+A	6-18-20 13:35	H+A	6-18-2020 13:35
H+A	6-18-20 15:19	ATL	6/18/20 1521

- ✓ No. of containers correct
- ✓ Received in good condition
- Custody seals secure
- ✓ Conforms to COC document

14 Temperature on receipt
ICE

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

Laboratory

Adcanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

ADVANCED TECHNOLOGY LABORATORIES

September 01, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001618

Client Reference : Raytheon Main GETS Monthly Sample, 532.15

Enclosed are the results for sample(s) received on July 02, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	09/01/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-070220	2001618-01	Water	7/02/20 8:00	7/02/20 15:35
CEFF	2001618-02	Water	7/02/20 11:00	7/02/20 15:35
CBT	2001618-03	Water	7/02/20 11:15	7/02/20 15:35
POX	2001618-04	Water	7/02/20 11:25	7/02/20 15:35
PF	2001618-05	Water	7/02/20 11:35	7/02/20 15:35
INF	2001618-06	Water	7/02/20 11:45	7/02/20 15:35
EW-02	2001618-07	Water	7/02/20 12:15	7/02/20 15:35
MW-29	2001618-08	Water	7/02/20 12:30	7/02/20 15:35

CASE NARRATIVE

Samples for Bromate by IC-MS/MS was subcontracted to Element Materials Technology with CA-ELAP Cert. 2652.

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: TB-070220

Lab ID: 2001618-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,1,1-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,1,2-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,1-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,1-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,1-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,2,3-Trichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,2-Dibromoethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,2-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,2-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,3-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,3-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
1,4-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
2,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
2-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
4-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
4-Isopropyltoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Benzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Bromobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Bromodichloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Bromoform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Bromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Carbon tetrachloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Chlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Chloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Chloroform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Chloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Dibromochloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: TB-070220

Lab ID: 2001618-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Dichlorodifluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Ethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Hexachlorobutadiene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Isopropylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
m,p-Xylene	ND	1.0	1	B0G0065	07/06/2020	07/06/20 12:33	
Methylene chloride	ND	1.0	1	B0G0065	07/06/2020	07/06/20 12:33	
n-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
n-Propylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Naphthalene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
o-Xylene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
sec-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Styrene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
tert-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Tetrachloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Toluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Trichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Trichlorofluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Vinyl chloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:33	
Surrogate: 1,2-Dichloroethane-d4	*120 %*	*59 - 158*		B0G0065	07/06/2020	*07/06/20 12:33*	
Surrogate: 4-Bromofluorobenzene	*98.1 %*	*71 - 127*		B0G0065	07/06/2020	*07/06/20 12:33*	
Surrogate: Dibromofluoromethane	*105 %*	*66 - 147*		B0G0065	07/06/2020	*07/06/20 12:33*	
Surrogate: Toluene-d8	*96.5 %*	*77 - 138*		B0G0065	07/06/2020	*07/06/20 12:33*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: CEFF

Lab ID: 2001618-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,1,1-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,1,2-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,1-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,1-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,1-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,2,3-Trichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,2-Dibromoethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,2-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,2-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,3-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,3-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
1,4-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
2,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
2-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
4-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
4-Isopropyltoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Benzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Bromobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Bromodichloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Bromoform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Bromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Carbon tetrachloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Chlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Chloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Chloroform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Chloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Dibromochloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: CEFF

Lab ID: 2001618-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Dichlorodifluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Ethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Hexachlorobutadiene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Isopropylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
m,p-Xylene	ND	1.0	1	B0G0065	07/06/2020	07/06/20 13:15	
Methylene chloride	ND	1.0	1	B0G0065	07/06/2020	07/06/20 13:15	
n-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
n-Propylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Naphthalene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
o-Xylene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
sec-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Styrene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
tert-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Tetrachloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Toluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Trichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Trichlorofluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Vinyl chloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:15	
Surrogate: 1,2-Dichloroethane-d4	*120 %*	*59 - 158*		B0G0065	07/06/2020	*07/06/20 13:15*	
Surrogate: 4-Bromofluorobenzene	*95.2 %*	*71 - 127*		B0G0065	07/06/2020	*07/06/20 13:15*	
Surrogate: Dibromofluoromethane	*104 %*	*66 - 147*		B0G0065	07/06/2020	*07/06/20 13:15*	
Surrogate: Toluene-d8	*97.9 %*	*77 - 138*		B0G0065	07/06/2020	*07/06/20 13:15*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: CEFF

Lab ID: 2001618-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0G0154	07/08/2020	07/09/20 15:46	
Surrogate: 1,2-Dichlorobenzene-d4	*83.6 %*		*13 - 99*		B0G0154	07/08/2020	*07/09/20 15:46*	
Surrogate: 2-Fluorobiphenyl	*89.9 %*		*8 - 111*		B0G0154	07/08/2020	*07/09/20 15:46*	
Surrogate: 4-Terphenyl-d14	*87.2 %*		*12 - 113*		B0G0154	07/08/2020	*07/09/20 15:46*	
Surrogate: Nitrobenzene-d5	*92.1 %*		*15 - 121*		B0G0154	07/08/2020	*07/09/20 15:46*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: CBT

Lab ID: 2001618-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,1,1-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,1,2-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,1-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,1-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,1-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,2,3-Trichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,2-Dibromoethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,2-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,2-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,3-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,3-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
1,4-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
2,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
2-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
4-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
4-Isopropyltoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Benzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Bromobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Bromodichloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Bromoform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Bromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Carbon tetrachloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Chlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Chloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Chloroform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Chloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Dibromochloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: CBT

Lab ID: 2001618-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Dichlorodifluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Ethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Hexachlorobutadiene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Isopropylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
m,p-Xylene	ND	1.0	1	B0G0065	07/06/2020	07/06/20 13:36	
Methylene chloride	ND	1.0	1	B0G0065	07/06/2020	07/06/20 13:36	
n-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
n-Propylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Naphthalene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
o-Xylene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
sec-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Styrene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
tert-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Tetrachloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Toluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Trichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Trichlorofluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Vinyl chloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:36	
Surrogate: 1,2-Dichloroethane-d4	*122 %*	*59 - 158*		B0G0065	07/06/2020	*07/06/20 13:36*	
Surrogate: 4-Bromofluorobenzene	*97.2 %*	*71 - 127*		B0G0065	07/06/2020	*07/06/20 13:36*	
Surrogate: Dibromofluoromethane	*105 %*	*66 - 147*		B0G0065	07/06/2020	*07/06/20 13:36*	
Surrogate: Toluene-d8	*98.8 %*	*77 - 138*		B0G0065	07/06/2020	*07/06/20 13:36*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: CBT

Lab ID: 2001618-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0G0154	07/08/2020	07/09/20 16:13	
Surrogate: 1,2-Dichlorobenzene-d4	*90.9 %*		*13 - 99*		B0G0154	07/08/2020	*07/09/20 16:13*	
Surrogate: 2-Fluorobiphenyl	*102 %*		*8 - 111*		B0G0154	07/08/2020	*07/09/20 16:13*	
Surrogate: 4-Terphenyl-d14	*90.9 %*		*12 - 113*		B0G0154	07/08/2020	*07/09/20 16:13*	
Surrogate: Nitrobenzene-d5	*103 %*		*15 - 121*		B0G0154	07/08/2020	*07/09/20 16:13*	

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San Diego , CA 92122	Reported :	09/01/2020

Client Sample ID: POX

Lab ID: 2001618-04

Alkalinity, Speciated by SM 2320B

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO3)	**220**	5.0	1	B0G0149	07/08/2020	07/08/20 20:56	
Alkalinity, Carbonate (as CaCO3)	ND	5.0	1	B0G0149	07/08/2020	07/08/20 20:56	
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	1	B0G0149	07/08/2020	07/08/20 20:56	
Alkalinity, Total (as CaCO3)	**220**	5.0	1	B0G0149	07/08/2020	07/08/20 20:56	

Total Organic Carbon by SM 5310B

Analyst: Sammy

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B0G0173	07/09/2020	07/09/20 14:35	

Volatile Organic Compounds by EPA 8260B

Analyst: VW

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,1,1-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,1,2-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,1-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,1-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,1-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,2,3-Trichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,2-Dibromoethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,2-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,2-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,3-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,3-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
1,4-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
2,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
2-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	

Certificate of Analysis

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: POX

Lab ID: 2001618-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
4-Isopropyltoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Benzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Bromobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Bromodichloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Bromoform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Bromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Carbon tetrachloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Chlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Chloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Chloroform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Chloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Dibromochloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Dibromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Dichlorodifluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Ethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Hexachlorobutadiene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Isopropylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
m,p-Xylene	ND	1.0	1	B0G0065	07/06/2020	07/06/20 12:54	
Methylene chloride	ND	1.0	1	B0G0065	07/06/2020	07/06/20 12:54	
n-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
n-Propylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Naphthalene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
o-Xylene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
sec-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Styrene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
tert-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Tetrachloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Toluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Trichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Trichlorofluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Vinyl chloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 12:54	
Surrogate: 1,2-Dichloroethane-d4	*117 %*	*59 - 158*		B0G0065	07/06/2020	*07/06/20 12:54*	
Surrogate: 4-Bromofluorobenzene	*95.7 %*	*71 - 127*		B0G0065	07/06/2020	*07/06/20 12:54*	

Certificate of Analysis

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9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	09/01/2020

Client Sample ID: POX

Lab ID: 2001618-04

Volatile Organic Compounds by EPA 8260B — **Analyst: VW**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Dibromofluoromethane	*103 %*		*66 - 147*		B0G0065	07/06/2020	*07/06/20 12:54*	
Surrogate: Toluene-d8	*97.9 %*		*77 - 138*		B0G0065	07/06/2020	*07/06/20 12:54*	

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique — **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0G0154	07/08/2020	07/09/20 16:41	
Surrogate: 1,2-Dichlorobenzene-d4	*83.9 %*		*13 - 99*		B0G0154	07/08/2020	*07/09/20 16:41*	
Surrogate: 2-Fluorobiphenyl	*97.5 %*		*8 - 111*		B0G0154	07/08/2020	*07/09/20 16:41*	
Surrogate: 4-Terphenyl-d14	*98.5 %*		*12 - 113*		B0G0154	07/08/2020	*07/09/20 16:41*	
Surrogate: Nitrobenzene-d5	*91.4 %*		*15 - 121*		B0G0154	07/08/2020	*07/09/20 16:41*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: PF

Lab ID: 2001618-05

UV Absorption by EPA 415.3

Analyst: SDC

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B0G0081	07/06/2020	07/06/20 17:24	H2

Alkalinity, Speciated by SM 2320B

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO3)	**220**	5.0	1	B0G0149	07/08/2020	07/08/20 20:56	
Alkalinity, Carbonate (as CaCO3)	ND	5.0	1	B0G0149	07/08/2020	07/08/20 20:56	
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	1	B0G0149	07/08/2020	07/08/20 20:56	
Alkalinity, Total (as CaCO3)	**220**	5.0	1	B0G0149	07/08/2020	07/08/20 20:56	

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: SDC

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	1.2	1	B0G0138	07/08/2020	07/09/20 00:00	

Total Organic Carbon by SM 5310B

Analyst: Sammy

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B0G0173	07/09/2020	07/09/20 15:09	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: INF

Lab ID: 2001618-06

Bromide by Ion Chromatography EPA 300

Analyst: SDC

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	**0.48**	0.05	1	B0G0174	07/09/2020	07/09/20 13:03	

Volatile Organic Compounds by EPA 8260B

Analyst: VW

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,1,1-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,1,2-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,1-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,1-Dichloroethene	**43**	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,1-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,2,3-Trichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,2-Dibromoethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,2-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,2-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,3-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,3-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
1,4-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
2,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
2-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
4-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
4-Isopropyltoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Benzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Bromobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Bromodichloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Bromoform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Bromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Carbon tetrachloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Chlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: INF

Lab ID: 2001618-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Chloroform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Chloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Dibromochloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Dibromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Dichlorodifluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Ethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Hexachlorobutadiene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Isopropylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
m,p-Xylene	ND	1.0	1	B0G0065	07/06/2020	07/06/20 14:17	
Methylene chloride	ND	1.0	1	B0G0065	07/06/2020	07/06/20 14:17	
n-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
n-Propylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Naphthalene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
o-Xylene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
sec-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Styrene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
tert-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Tetrachloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Toluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Trichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Trichlorofluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Vinyl chloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 14:17	
Surrogate: 1,2-Dichloroethane-d4	*124 %*	*59 - 158*		B0G0065	07/06/2020	*07/06/20 14:17*	
Surrogate: 4-Bromofluorobenzene	*95.1 %*	*71 - 127*		B0G0065	07/06/2020	*07/06/20 14:17*	
Surrogate: Dibromofluoromethane	*107 %*	*66 - 147*		B0G0065	07/06/2020	*07/06/20 14:17*	
Surrogate: Toluene-d8	*97.5 %*	*77 - 138*		B0G0065	07/06/2020	*07/06/20 14:17*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
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San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: INF

Lab ID: 2001618-06

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**21**	2.0	1	B0G0161	07/09/2020	07/09/20 16:03	
Surrogate: 1,2-Dichlorobenzene-d4	*82.4 %*		*17 - 119*		B0G0161	07/09/2020	*07/09/20 16:03*	
Surrogate: 2-Fluorobiphenyl	*95.3 %*		*10 - 133*		B0G0161	07/09/2020	*07/09/20 16:03*	
Surrogate: 4-Terphenyl-d14	*119 %*		*5 - 139*		B0G0161	07/09/2020	*07/09/20 16:03*	
Surrogate: Nitrobenzene-d5	*106 %*		*13 - 150*		B0G0161	07/09/2020	*07/09/20 16:03*	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: EW-02

Lab ID: 2001618-07

Bromide by Ion Chromatography EPA 300 — **Analyst: SDC**

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	**0.39**	0.05	1	B0G0174	07/09/2020	07/09/20 13:15	

Volatile Organic Compounds by EPA 8260B — **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,1,1-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,1,2-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,1-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,1-Dichloroethene	**15**	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,1-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,2,3-Trichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,2-Dibromoethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,2-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,2-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,3-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,3-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
1,4-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
2,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
2-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
4-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
4-Isopropyltoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Benzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Bromobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Bromodichloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Bromoform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Bromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Carbon tetrachloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Chlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	

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Client Sample ID: EW-02

Lab ID: 2001618-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Chloroform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Chloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Dibromochloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Dibromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Dichlorodifluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Ethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Hexachlorobutadiene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Isopropylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
m,p-Xylene	ND	1.0	1	B0G0065	07/06/2020	07/06/20 13:57	
Methylene chloride	ND	1.0	1	B0G0065	07/06/2020	07/06/20 13:57	
n-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
n-Propylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Naphthalene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
o-Xylene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
sec-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Styrene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
tert-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Tetrachloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Toluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Trichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Trichlorofluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Vinyl chloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 13:57	
Surrogate: 1,2-Dichloroethane-d4	*119 %*	*59 - 158*		B0G0065	07/06/2020	*07/06/20 13:57*	
Surrogate: 4-Bromofluorobenzene	*97.5 %*	*71 - 127*		B0G0065	07/06/2020	*07/06/20 13:57*	
Surrogate: Dibromofluoromethane	*104 %*	*66 - 147*		B0G0065	07/06/2020	*07/06/20 13:57*	
Surrogate: Toluene-d8	*99.6 %*	*77 - 138*		B0G0065	07/06/2020	*07/06/20 13:57*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: EW-02

Lab ID: 2001618-07

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**6.6**	2.0	1	B0G0161	07/09/2020	07/09/20 16:29	
Surrogate: 1,2-Dichlorobenzene-d4	*87.7 %*		*17 - 119*		B0G0161	07/09/2020	*07/09/20 16:29*	
Surrogate: 2-Fluorobiphenyl	*98.4 %*		*10 - 133*		B0G0161	07/09/2020	*07/09/20 16:29*	
Surrogate: 4-Terphenyl-d14	*118 %*		*5 - 139*		B0G0161	07/09/2020	*07/09/20 16:29*	
Surrogate: Nitrobenzene-d5	*108 %*		*13 - 150*		B0G0161	07/09/2020	*07/09/20 16:29*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: MW-29

Lab ID: 2001618-08

Bromide by Ion Chromatography EPA 300

Analyst: SDC

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	**0.81**	0.05	1	B0G0174	07/09/2020	07/09/20 13:26	

Volatile Organic Compounds by EPA 8260B

Analyst: VW

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,1,1-Trichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,1,2-Trichloroethane	**0.51**	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,1-Dichloroethane	**1.4**	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,1-Dichloroethene	**150**	5.0	10	B0G0065	07/06/2020	07/06/20 14:59	
1,1-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,2,3-Trichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,2-Dibromoethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,2-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,2-Dichloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,3-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,3-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
1,4-Dichlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
2,2-Dichloropropane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
2-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
4-Chlorotoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
4-Isopropyltoluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Benzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Bromobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Bromodichloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Bromoform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Bromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Carbon tetrachloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Chlorobenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	

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Client Sample ID: MW-29

Lab ID: 2001618-08

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Chloroform	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Chloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Dibromochloromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Dibromomethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Dichlorodifluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Ethylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Hexachlorobutadiene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Isopropylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
m,p-Xylene	ND	1.0	1	B0G0065	07/06/2020	07/06/20 15:20	
Methylene chloride	ND	1.0	1	B0G0065	07/06/2020	07/06/20 15:20	
n-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
n-Propylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Naphthalene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
o-Xylene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
sec-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Styrene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
tert-Butylbenzene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Tetrachloroethene	**0.52**	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Toluene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Trichloroethene	**1.6**	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Trichlorofluoromethane	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Vinyl chloride	ND	0.50	1	B0G0065	07/06/2020	07/06/20 15:20	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*		B0G0065	07/06/2020	*07/06/20 15:20*	
Surrogate: 1,2-Dichloroethane-d4	*119 %*	*59 - 158*		B0G0065	07/06/2020	*07/06/20 14:59*	
Surrogate: 4-Bromofluorobenzene	*91.0 %*	*71 - 127*		B0G0065	07/06/2020	*07/06/20 15:20*	
Surrogate: 4-Bromofluorobenzene	*94.1 %*	*71 - 127*		B0G0065	07/06/2020	*07/06/20 14:59*	
Surrogate: Dibromofluoromethane	*103 %*	*66 - 147*		B0G0065	07/06/2020	*07/06/20 15:20*	
Surrogate: Dibromofluoromethane	*107 %*	*66 - 147*		B0G0065	07/06/2020	*07/06/20 14:59*	
Surrogate: Toluene-d8	*98.0 %*	*77 - 138*		B0G0065	07/06/2020	*07/06/20 15:20*	
Surrogate: Toluene-d8	*99.4 %*	*77 - 138*		B0G0065	07/06/2020	*07/06/20 14:59*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/01/2020

Client Sample ID: MW-29

Lab ID: 2001618-08

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**78**	2.0	1	B0G0161	07/09/2020	07/09/20 16:55	
Surrogate: 1,2-Dichlorobenzene-d4	*85.3 %*		*17 - 119*		B0G0161	07/09/2020	*07/09/20 16:55*	
Surrogate: 2-Fluorobiphenyl	*99.4 %*		*10 - 133*		B0G0161	07/09/2020	*07/09/20 16:55*	
Surrogate: 4-Terphenyl-d14	*119 %*		*5 - 139*		B0G0161	07/09/2020	*07/09/20 16:55*	
Surrogate: Nitrobenzene-d5	*106 %*		*13 - 150*		B0G0161	07/09/2020	*07/09/20 16:55*	

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QUALITY CONTROL SECTION

Alkalinity, Speciated by SM 2320B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0149 - No_Prep_WC1_W										
Blank (B0G0149-BLK1)					Prepared: 7/8/2020 Analyzed: 7/8/2020					
Alkalinity, Bicarbonate (as CaCO3)	ND	5.0	3.4							
Alkalinity, Carbonate (as CaCO3)	ND	5.0	3.4							
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	3.4							
Alkalinity, Total (as CaCO3)	ND	5.0	3.4							
LCS (B0G0149-BS1)					Prepared: 7/8/2020 Analyzed: 7/8/2020					
Alkalinity, Total (as CaCO3)	97.9400	5.0	3.4	99.9580		98.0	80 - 120			
Matrix Spike (B0G0149-MS1)			**Source: 2001618-04**		Prepared: 7/8/2020 Analyzed: 7/8/2020					
Alkalinity, Total (as CaCO3)	315.290	5.0	3.4	99.9580	217.990	97.3	80 - 120			
Matrix Spike Dup (B0G0149-MSD1)			**Source: 2001618-04**		Prepared: 7/8/2020 Analyzed: 7/8/2020					
Alkalinity, Total (as CaCO3)	316.760	5.0	3.4	99.9580	217.990	98.8	80 - 120	0.465	20	

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Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0138 - No_Prep_WC1_W										
Blank (B0G0138-BLK1)					Prepared: 7/8/2020 Analyzed: 7/9/2020					
Residue, Suspended	ND	1.0	1.0							
LCS (B0G0138-BS1)					Prepared: 7/8/2020 Analyzed: 7/9/2020					
Residue, Suspended	94.0000	10	10	100.000		94.0	80 - 120			
Duplicate (B0G0138-DUP1)			**Source: 2001642-01**		Prepared: 7/8/2020 Analyzed: 7/9/2020					
Residue, Suspended	48.0000	5.0	5.0		43.0000			11.0	10	

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Bromide by Ion Chromatography EPA 300 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0174 - No_Prep_IC1_W										
Blank (B0G0174-BLK1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
Bromide	ND	0.05	0.02							
LCS (B0G0174-BS1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
Bromide	0.991300	0.05	0.02	1.00000		99.1	90 - 110			
Duplicate (B0G0174-DUP1)			**Source: 2001618-06**		Prepared: 7/9/2020 Analyzed: 7/9/2020					
Bromide	0.401000	0.05	0.02		0.481000			18.1	20	
Matrix Spike (B0G0174-MS1)			**Source: 2001618-06**		Prepared: 7/9/2020 Analyzed: 7/9/2020					
Bromide	2.66270	0.05	0.02	2.50000	0.481000	87.3	80 - 120			
Matrix Spike Dup (B0G0174-MSD1)			**Source: 2001618-06**		Prepared: 7/9/2020 Analyzed: 7/9/2020					
Bromide	2.63680	0.05	0.02	2.50000	0.481000	86.2	80 - 120	0.977	20	

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UV Absorption by EPA 415.3 - Quality Control

Analyte	Result (1/cm)	PQL (1/cm)	MDL (1/cm)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0081 - No_Prep_II_W										
Duplicate (B0G0081-DUP1)			**Source: 2001618-05**		Prepared: 7/6/2020 Analyzed: 7/6/2020					
UV Absorption	ND	0.01	0.01		ND				20	H2

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Total Organic Carbon by SM 5310B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0173 - No_Prep_II_W										
Blank (B0G0173-BLK1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
Organic Carbon, Total	ND	3.0	1.3							
LCS (B0G0173-BS1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
Organic Carbon, Total	23.2800	3.0	1.3	25.0000		93.1	80 - 120			
LCS Dup (B0G0173-BSD1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
Organic Carbon, Total	22.8500	3.0	1.3	25.0000		91.4	80 - 120	1.86	20	
Duplicate (B0G0173-DUP1)			**Source: 2001618-04**		Prepared: 7/9/2020 Analyzed: 7/9/2020					
Organic Carbon, Total	ND	3.0	1.3		ND			NR	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0065 - MSVOA_LL_W										
Blank (B0G0065-BLK1)					Prepared: 7/6/2020 Analyzed: 7/6/2020					
1,1,1,2-Tetrachloroethane	ND	0.50	0.11							
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,1-Dichloropropene	ND	0.50	0.13							
1,2,3-Trichloropropane	ND	0.50	0.39							
1,2,3-Trichlorobenzene	ND	0.50	0.18							
1,2,4-Trichlorobenzene	ND	0.50	0.16							
1,2,4-Trimethylbenzene	ND	0.50	0.14							
1,2-Dibromo-3-chloropropane	ND	0.50	0.41							
1,2-Dibromoethane	ND	0.50	0.24							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3,5-Trimethylbenzene	ND	0.50	0.13							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,3-Dichloropropane	ND	0.50	0.21							
1,4-Dichlorobenzene	ND	0.50	0.17							
2,2-Dichloropropane	ND	0.50	0.38							
2-Chlorotoluene	ND	0.50	0.11							
4-Chlorotoluene	ND	0.50	0.12							
4-Isopropyltoluene	ND	0.50	0.11							
Benzene	ND	0.50	0.13							
Bromobenzene	ND	0.50	0.21							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,2-Dichloroethene	ND	0.50	0.14							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Dibromomethane	ND	0.50	0.19							
Dichlorodifluoromethane	ND	0.50	0.18							
Ethylbenzene	ND	0.50	0.13							
Hexachlorobutadiene	ND	0.50	0.15							

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Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0065 - MSVOA_LL_W (continued)										
Blank (B0G0065-BLK1) - Continued					Prepared: 7/6/2020 Analyzed: 7/6/2020					
Isopropylbenzene	ND	0.50	0.10							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
n-Butylbenzene	ND	0.50	0.11							
n-Propylbenzene	ND	0.50	0.10							
Naphthalene	ND	0.50	0.41							
o-Xylene	ND	0.50	0.13							
sec-Butylbenzene	ND	0.50	0.09							
Styrene	ND	0.50	0.13							
tert-Butylbenzene	ND	0.50	0.09							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*29.43*			*25.0000*		*118*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*23.14*			*25.0000*		*92.6*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.54*			*25.0000*		*102*	*66 - 147*			
Surrogate: Toluene-d8	*24.41*			*25.0000*		*97.6*	*77 - 138*			
LCS (B0G0065-BS1)					Prepared: 7/6/2020 Analyzed: 7/6/2020					
1,1,1,2-Tetrachloroethane	21.3000	0.50	0.11	20.0000		106	71 - 133			
1,1,1-Trichloroethane	19.4700	0.50	0.21	20.0000		97.4	62 - 124			
1,1,2,2-Tetrachloroethane	17.4600	0.50	0.36	20.0000		87.3	50 - 131			
1,1,2-Trichloroethane	21.8200	0.50	0.25	20.0000		109	77 - 121			
1,1-Dichloroethane	19.3200	0.50	0.09	20.0000		96.6	52 - 130			
1,1-Dichloroethene	16.1200	0.50	0.13	20.0000		80.6	61 - 136			
1,1-Dichloropropene	18.2400	0.50	0.13	20.0000		91.2	80 - 128			
1,2,3-Trichloropropane	19.0600	0.50	0.39	20.0000		95.3	59 - 126			
1,2,3-Trichlorobenzene	19.0800	0.50	0.18	20.0000		95.4	69 - 138			
1,2,4-Trichlorobenzene	18.6700	0.50	0.16	20.0000		93.4	78 - 125			
1,2,4-Trimethylbenzene	18.1400	0.50	0.14	20.0000		90.7	70 - 126			
1,2-Dibromo-3-chloropropane	22.6800	0.50	0.41	20.0000		113	58 - 127			
1,2-Dibromoethane	20.7000	0.50	0.24	20.0000		104	76 - 120			
1,2-Dichlorobenzene	18.2600	0.50	0.20	20.0000		91.3	82 - 117			
1,2-Dichloroethane	23.2600	0.50	0.20	20.0000		116	66 - 126			
1,2-Dichloropropane	19.4900	0.50	0.15	20.0000		97.4	70 - 117			
1,3,5-Trimethylbenzene	16.6500	0.50	0.13	20.0000		83.2	71 - 125			
1,3-Dichlorobenzene	17.5800	0.50	0.16	20.0000		87.9	81 - 116			
1,3-Dichloropropane	20.2800	0.50	0.21	20.0000		101	69 - 124			

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Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0065 - MSVOA_LL_W (continued)										
LCS (B0G0065-BS1) - Continued					Prepared: 7/6/2020 Analyzed: 7/6/2020					
1,4-Dichlorobenzene	18.0300	0.50	0.17	20.0000		90.2	80 - 114			
2,2-Dichloropropane	21.9300	0.50	0.38	20.0000		110	58 - 132			
2-Chlorotoluene	16.3200	0.50	0.11	20.0000		81.6	71 - 119			
4-Chlorotoluene	17.1200	0.50	0.12	20.0000		85.6	72 - 122			
4-Isopropyltoluene	17.7600	0.50	0.11	20.0000		88.8	69 - 126			
Benzene	18.5900	0.50	0.13	20.0000		93.0	80 - 116			
Bromobenzene	16.3300	0.50	0.21	20.0000		81.6	77 - 118			
Bromodichloromethane	20.2800	0.50	0.14	20.0000		101	73 - 118			
Bromoform	22.3000	0.50	0.20	20.0000		112	65 - 133			
Bromomethane	17.0300	0.50	0.40	20.0000		85.2	7 - 205			
Carbon tetrachloride	19.2900	0.50	0.09	20.0000		96.4	63 - 133			
Chlorobenzene	18.8700	0.50	0.13	20.0000		94.4	86 - 113			
Chloroethane	20.9300	0.50	0.15	20.0000		105	66 - 141			
Chloroform	20.0800	0.50	0.11	20.0000		100	63 - 127			
Chloromethane	16.4600	0.50	0.12	20.0000		82.3	0 - 207			
cis-1,2-Dichloroethene	18.3900	0.50	0.14	20.0000		92.0	64 - 126			
cis-1,3-Dichloropropene	22.0200	0.50	0.13	20.0000		110	70 - 141			
Dibromochloromethane	22.2500	0.50	0.16	20.0000		111	67 - 135			
Dibromomethane	21.0400	0.50	0.19	20.0000		105	74 - 118			
Dichlorodifluoromethane	3.12000	0.50	0.18	20.0000		15.6	14 - 181			
Ethylbenzene	18.7900	0.50	0.13	20.0000		94.0	77 - 118			
Hexachlorobutadiene	16.8800	0.50	0.15	20.0000		84.4	66 - 125			
Isopropylbenzene	15.0400	0.50	0.10	20.0000		75.2	68 - 137			
m,p-Xylene	38.3800	1.0	0.19	40.0000		96.0	78 - 126			
Methylene chloride	18.0700	1.0	0.71	20.0000		90.4	51 - 149			
n-Butylbenzene	16.8600	0.50	0.11	20.0000		84.3	63 - 127			
n-Propylbenzene	15.9400	0.50	0.10	20.0000		79.7	69 - 124			
Naphthalene	16.8100	0.50	0.41	20.0000		84.0	60 - 126			
o-Xylene	19.1400	0.50	0.13	20.0000		95.7	79 - 126			
sec-Butylbenzene	15.5700	0.50	0.09	20.0000		77.8	69 - 124			
Styrene	23.1300	0.50	0.13	20.0000		116	80 - 127			
tert-Butylbenzene	15.9200	0.50	0.09	20.0000		79.6	71 - 124			
Tetrachloroethene	17.5300	0.50	0.10	20.0000		87.6	73 - 129			
Toluene	19.0000	0.50	0.12	20.0000		95.0	78 - 121			
trans-1,2-Dichloroethene	18.0200	0.50	0.09	20.0000		90.1	58 - 141			
Trichloroethene	17.4200	0.50	0.10	20.0000		87.1	73 - 126			
Trichlorofluoromethane	14.8200	0.50	0.23	20.0000		74.1	62 - 146			
Vinyl chloride	12.8500	0.50	0.13	20.0000		64.2	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*28.99*			*25.0000*		*116*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*26.45*			*25.0000*		*106*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.79*			*25.0000*		*103*	*66 - 147*			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0065 - MSVOA_LL_W (continued)										
LCS (B0G0065-BS1) - Continued					Prepared: 7/6/2020 Analyzed: 7/6/2020					
Surrogate: Toluene-d8	*25.81*			*25.0000*		*103*	*77 - 138*			
LCS Dup (B0G0065-BSD1)					Prepared: 7/6/2020 Analyzed: 7/6/2020					
1,1,1,2-Tetrachloroethane	23.1700	0.50	0.11	20.0000		116	71 - 133	8.41	20	
1,1,1-Trichloroethane	21.4900	0.50	0.21	20.0000		107	62 - 124	9.86	20	
1,1,2,2-Tetrachloroethane	19.7200	0.50	0.36	20.0000		98.6	50 - 131	12.2	20	
1,1,2-Trichloroethane	23.7200	0.50	0.25	20.0000		119	77 - 121	8.34	20	
1,1-Dichloroethane	21.3400	0.50	0.09	20.0000		107	52 - 130	9.94	20	
1,1-Dichloroethene	19.3200	0.50	0.13	20.0000		96.6	61 - 136	18.1	20	
1,1-Dichloropropene	21.1500	0.50	0.13	20.0000		106	80 - 128	14.8	20	
1,2,3-Trichloropropane	22.0300	0.50	0.39	20.0000		110	59 - 126	14.5	20	
1,2,3-Trichlorobenzene	20.7100	0.50	0.18	20.0000		104	69 - 138	8.19	20	
1,2,4-Trichlorobenzene	20.8000	0.50	0.16	20.0000		104	78 - 125	10.8	20	
1,2,4-Trimethylbenzene	20.4500	0.50	0.14	20.0000		102	70 - 126	12.0	20	
1,2-Dibromo-3-chloropropane	26.9000	0.50	0.41	20.0000		134	58 - 127	17.0	20	L4
1,2-Dibromoethane	24.8100	0.50	0.24	20.0000		124	76 - 120	18.1	20	L4
1,2-Dichlorobenzene	21.0800	0.50	0.20	20.0000		105	82 - 117	14.3	20	
1,2-Dichloroethane	25.0600	0.50	0.20	20.0000		125	66 - 126	7.45	20	
1,2-Dichloropropane	21.8300	0.50	0.15	20.0000		109	70 - 117	11.3	20	
1,3,5-Trimethylbenzene	19.4200	0.50	0.13	20.0000		97.1	71 - 125	15.4	20	
1,3-Dichlorobenzene	20.1900	0.50	0.16	20.0000		101	81 - 116	13.8	20	
1,3-Dichloropropane	22.0800	0.50	0.21	20.0000		110	69 - 124	8.50	20	
1,4-Dichlorobenzene	20.4700	0.50	0.17	20.0000		102	80 - 114	12.7	20	
2,2-Dichloropropane	24.7700	0.50	0.38	20.0000		124	58 - 132	12.2	20	
2-Chlorotoluene	18.7000	0.50	0.11	20.0000		93.5	71 - 119	13.6	20	
4-Chlorotoluene	19.8700	0.50	0.12	20.0000		99.4	72 - 122	14.9	20	
4-Isopropyltoluene	20.7800	0.50	0.11	20.0000		104	69 - 126	15.7	20	
Benzene	21.2400	0.50	0.13	20.0000		106	80 - 116	13.3	20	
Bromobenzene	19.2900	0.50	0.21	20.0000		96.4	77 - 118	16.6	20	
Bromodichloromethane	23.2300	0.50	0.14	20.0000		116	73 - 118	13.6	20	
Bromoform	23.8200	0.50	0.20	20.0000		119	65 - 133	6.59	20	
Bromomethane	20.0500	0.50	0.40	20.0000		100	7 - 205	16.3	20	
Carbon tetrachloride	23.2200	0.50	0.09	20.0000		116	63 - 133	18.5	20	
Chlorobenzene	20.9900	0.50	0.13	20.0000		105	86 - 113	10.6	20	
Chloroethane	22.1300	0.50	0.15	20.0000		111	66 - 141	5.57	20	
Chloroform	22.1900	0.50	0.11	20.0000		111	63 - 127	9.98	20	
Chloromethane	18.0800	0.50	0.12	20.0000		90.4	0 - 207	9.38	20	
cis-1,2-Dichloroethene	21.2000	0.50	0.14	20.0000		106	64 - 126	14.2	20	
cis-1,3-Dichloropropene	24.1300	0.50	0.13	20.0000		121	70 - 141	9.14	20	
Dibromochloromethane	24.4700	0.50	0.16	20.0000		122	67 - 135	9.50	20	
Dibromomethane	24.2100	0.50	0.19	20.0000		121	74 - 118	14.0	20	L4
Dichlorodifluoromethane	3.58000	0.50	0.18	20.0000		17.9	14 - 181	13.7	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0065 - MSVOA_LL_W (continued)										
LCS Dup (B0G0065-BSD1) - Continued					Prepared: 7/6/2020 Analyzed: 7/6/2020					
Ethylbenzene	20.6600	0.50	0.13	20.0000		103	77 - 118	9.48	20	
Hexachlorobutadiene	20.3500	0.50	0.15	20.0000		102	66 - 125	18.6	20	
Isopropylbenzene	18.0900	0.50	0.10	20.0000		90.4	68 - 137	18.4	20	
m,p-Xylene	41.9800	1.0	0.19	40.0000		105	78 - 126	8.96	20	
Methylene chloride	19.2900	1.0	0.71	20.0000		96.4	51 - 149	6.53	20	
n-Butylbenzene	19.3400	0.50	0.11	20.0000		96.7	63 - 127	13.7	20	
n-Propylbenzene	18.7000	0.50	0.10	20.0000		93.5	69 - 124	15.9	20	
Naphthalene	18.2000	0.50	0.41	20.0000		91.0	60 - 126	7.94	20	
o-Xylene	21.1100	0.50	0.13	20.0000		106	79 - 126	9.79	20	
sec-Butylbenzene	18.5400	0.50	0.09	20.0000		92.7	69 - 124	17.4	20	
Styrene	24.3500	0.50	0.13	20.0000		122	80 - 127	5.14	20	
tert-Butylbenzene	18.2300	0.50	0.09	20.0000		91.2	71 - 124	13.5	20	
Tetrachloroethene	19.3400	0.50	0.10	20.0000		96.7	73 - 129	9.82	20	
Toluene	21.5000	0.50	0.12	20.0000		108	78 - 121	12.3	20	
trans-1,2-Dichloroethene	20.3100	0.50	0.09	20.0000		102	58 - 141	11.9	20	
Trichloroethene	20.4000	0.50	0.10	20.0000		102	73 - 126	15.8	20	
Trichlorofluoromethane	17.5000	0.50	0.23	20.0000		87.5	62 - 146	16.6	20	
Vinyl chloride	15.0300	0.50	0.13	20.0000		75.2	61 - 137	15.6	20	
Surrogate: 1,2-Dichloroethane-d4	*28.87*			*25.0000*		*115*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*26.41*			*25.0000*		*106*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.08*			*25.0000*		*104*	*66 - 147*			
Surrogate: Toluene-d8	*25.58*			*25.0000*		*102*	*77 - 138*			
Matrix Spike (B0G0065-MS1)			**Source: 2001618-04**		Prepared: 7/6/2020 Analyzed: 7/6/2020					
1,1,1,2-Tetrachloroethane	24.4300	0.50	0.11	20.0000	ND	122	71 - 133			
1,1,1-Trichloroethane	27.6600	0.50	0.21	20.0000	ND	138	62 - 124			M2
1,1,2,2-Tetrachloroethane	19.9900	0.50	0.36	20.0000	ND	100	50 - 131			
1,1,2-Trichloroethane	24.1600	0.50	0.25	20.0000	ND	121	77 - 121			
1,1-Dichloroethane	24.8000	0.50	0.09	20.0000	0.230000	123	52 - 130			
1,1-Dichloroethene	24.7000	0.50	0.13	20.0000	ND	124	61 - 136			
1,1-Dichloropropene	26.2900	0.50	0.13	20.0000	ND	131	80 - 128			M2
1,2,3-Trichloropropane	22.7400	0.50	0.39	20.0000	ND	114	59 - 126			
1,2,3-Trichlorobenzene	22.5800	0.50	0.18	20.0000	ND	113	69 - 138			
1,2,4-Trichlorobenzene	22.8800	0.50	0.16	20.0000	ND	114	78 - 125			
1,2,4-Trimethylbenzene	20.9100	0.50	0.14	20.0000	ND	105	70 - 126			
1,2-Dibromo-3-chloropropane	27.4400	0.50	0.41	20.0000	ND	137	58 - 127			M2
1,2-Dibromoethane	24.7000	0.50	0.24	20.0000	ND	124	76 - 120			M2
1,2-Dichlorobenzene	22.5700	0.50	0.20	20.0000	ND	113	82 - 117			
1,2-Dichloroethane	26.1900	0.50	0.20	20.0000	ND	131	66 - 126			M2
1,2-Dichloropropane	23.9800	0.50	0.15	20.0000	ND	120	70 - 117			M2
1,3,5-Trimethylbenzene	22.2300	0.50	0.13	20.0000	ND	111	71 - 125			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0065 - MSVOA_LL_W (continued)										
Matrix Spike (B0G0065-MS1) - Continued			**Source: 2001618-04**		Prepared: 7/6/2020 Analyzed: 7/6/2020					
1,3-Dichlorobenzene	22.2600	0.50	0.16	20.0000	ND	111	81 - 116			
1,3-Dichloropropane	23.0000	0.50	0.21	20.0000	ND	115	69 - 124			
1,4-Dichlorobenzene	22.4500	0.50	0.17	20.0000	ND	112	80 - 114			
2,2-Dichloropropane	29.7500	0.50	0.38	20.0000	ND	149	58 - 132			M2
2-Chlorotoluene	21.2300	0.50	0.11	20.0000	ND	106	71 - 119			
4-Chlorotoluene	22.1400	0.50	0.12	20.0000	ND	111	72 - 122			
4-Isopropyltoluene	24.4000	0.50	0.11	20.0000	ND	122	69 - 126			
Benzene	24.2000	0.50	0.13	20.0000	ND	121	80 - 116			M2
Bromobenzene	20.6900	0.50	0.21	20.0000	ND	103	77 - 118			
Bromodichloromethane	24.0500	0.50	0.14	20.0000	ND	120	73 - 118			M2
Bromoform	24.5200	0.50	0.20	20.0000	ND	123	65 - 133			
Bromomethane	23.9200	0.50	0.40	20.0000	ND	120	7 - 205			
Carbon tetrachloride	30.0100	0.50	0.09	20.0000	ND	150	63 - 133			M2
Chlorobenzene	23.2300	0.50	0.13	20.0000	ND	116	81 - 115			M2
Chloroethane	24.9700	0.50	0.15	20.0000	ND	125	66 - 141			
Chloroform	24.9200	0.50	0.11	20.0000	0.180000	124	63 - 127			
Chloromethane	20.7600	0.50	0.12	20.0000	ND	104	0 - 207			
cis-1,2-Dichloroethene	23.2700	0.50	0.14	20.0000	ND	116	64 - 126			
cis-1,3-Dichloropropene	25.9700	0.50	0.13	20.0000	ND	130	70 - 141			
Dibromochloromethane	24.6000	0.50	0.16	20.0000	ND	123	67 - 135			
Dibromomethane	24.4800	0.50	0.19	20.0000	ND	122	74 - 118			M2
Dichlorodifluoromethane	5.26000	0.50	0.18	20.0000	ND	26.3	14 - 181			
Ethylbenzene	24.5400	0.50	0.13	20.0000	ND	123	77 - 118			M2
Hexachlorobutadiene	22.0400	0.50	0.15	20.0000	ND	110	66 - 125			
Isopropylbenzene	21.7200	0.50	0.10	20.0000	ND	109	68 - 137			
m,p-Xylene	48.8800	1.0	0.19	40.0000	ND	122	78 - 126			
Methylene chloride	21.6500	1.0	0.71	20.0000	ND	108	51 - 149			
n-Butylbenzene	23.0700	0.50	0.11	20.0000	ND	115	63 - 127			
n-Propylbenzene	22.5000	0.50	0.10	20.0000	ND	112	69 - 124			
Naphthalene	18.4800	0.50	0.41	20.0000	ND	92.4	60 - 126			
o-Xylene	23.9700	0.50	0.13	20.0000	ND	120	79 - 126			
sec-Butylbenzene	23.1200	0.50	0.09	20.0000	ND	116	69 - 124			
Styrene	22.0200	0.50	0.13	20.0000	ND	110	80 - 127			
tert-Butylbenzene	21.9100	0.50	0.09	20.0000	ND	110	71 - 124			
Tetrachloroethene	25.1400	0.50	0.10	20.0000	ND	126	73 - 129			
Toluene	24.3900	0.50	0.12	20.0000	ND	122	78 - 121			M2
trans-1,2-Dichloroethene	24.5400	0.50	0.09	20.0000	ND	123	58 - 141			
Trichloroethene	23.8900	0.50	0.10	20.0000	ND	119	73 - 126			
Trichlorofluoromethane	23.8800	0.50	0.23	20.0000	ND	119	62 - 146			
Vinyl chloride	20.0300	0.50	0.13	20.0000	ND	100	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*28.44*			*25.0000*		*114*	*59 - 158*			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0065 - MSVOA_LL_W (continued)										
Matrix Spike (B0G0065-MS1) - Continued			**Source: 2001618-04**			Prepared: 7/6/2020 Analyzed: 7/6/2020				
Surrogate: 4-Bromofluorobenzene	*26.21*			*25.0000*		*105*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.08*			*25.0000*		*104*	*66 - 147*			
Surrogate: Toluene-d8	*26.16*			*25.0000*		*105*	*77 - 138*			
Matrix Spike Dup (B0G0065-MSD1)			**Source: 2001618-04**			Prepared: 7/6/2020 Analyzed: 7/6/2020				
1,1,1,2-Tetrachloroethane	24.8800	0.50	0.11	20.0000	ND	124	71 - 133	1.83	20	
1,1,1-Trichloroethane	28.2400	0.50	0.21	20.0000	ND	141	62 - 124	2.08	20	M2
1,1,2,2-Tetrachloroethane	20.2100	0.50	0.36	20.0000	ND	101	50 - 131	1.09	20	
1,1,2-Trichloroethane	23.3200	0.50	0.25	20.0000	ND	117	77 - 121	3.54	20	
1,1-Dichloroethane	25.5900	0.50	0.09	20.0000	0.230000	127	52 - 130	3.14	20	
1,1-Dichloroethene	26.2300	0.50	0.13	20.0000	ND	131	61 - 136	6.01	20	
1,1-Dichloropropene	26.0300	0.50	0.13	20.0000	ND	130	80 - 128	0.994	20	M2
1,2,3-Trichloropropane	23.7700	0.50	0.39	20.0000	ND	119	59 - 126	4.43	20	
1,2,3-Trichlorobenzene	22.9200	0.50	0.18	20.0000	ND	115	69 - 138	1.49	20	
1,2,4-Trichlorobenzene	22.4000	0.50	0.16	20.0000	ND	112	78 - 125	2.12	20	
1,2,4-Trimethylbenzene	23.6900	0.50	0.14	20.0000	ND	118	70 - 126	12.5	20	
1,2-Dibromo-3-chloropropane	24.6600	0.50	0.41	20.0000	ND	123	58 - 127	10.7	20	
1,2-Dibromoethane	23.7700	0.50	0.24	20.0000	ND	119	76 - 120	3.84	20	
1,2-Dichlorobenzene	23.3600	0.50	0.20	20.0000	ND	117	82 - 117	3.44	20	
1,2-Dichloroethane	26.1000	0.50	0.20	20.0000	ND	130	66 - 126	0.344	20	M2
1,2-Dichloropropane	24.3800	0.50	0.15	20.0000	ND	122	70 - 117	1.65	20	M2
1,3,5-Trimethylbenzene	23.8800	0.50	0.13	20.0000	ND	119	71 - 125	7.16	20	
1,3-Dichlorobenzene	23.1100	0.50	0.16	20.0000	ND	116	81 - 116	3.75	20	
1,3-Dichloropropane	22.1900	0.50	0.21	20.0000	ND	111	69 - 124	3.58	20	
1,4-Dichlorobenzene	23.1400	0.50	0.17	20.0000	ND	116	80 - 114	3.03	20	M2
2,2-Dichloropropane	31.1600	0.50	0.38	20.0000	ND	156	58 - 132	4.63	20	M2
2-Chlorotoluene	22.7300	0.50	0.11	20.0000	ND	114	71 - 119	6.82	20	
4-Chlorotoluene	23.7100	0.50	0.12	20.0000	ND	119	72 - 122	6.85	20	
4-Isopropyltoluene	25.9400	0.50	0.11	20.0000	ND	130	69 - 126	6.12	20	M2
Benzene	23.9400	0.50	0.13	20.0000	ND	120	80 - 116	1.08	20	M2
Bromobenzene	21.7300	0.50	0.21	20.0000	ND	109	77 - 118	4.90	20	
Bromodichloromethane	23.9500	0.50	0.14	20.0000	ND	120	73 - 118	0.417	20	M2
Bromoform	23.7100	0.50	0.20	20.0000	ND	119	65 - 133	3.36	20	
Bromomethane	23.0300	0.50	0.40	20.0000	ND	115	7 - 205	3.79	20	
Carbon tetrachloride	29.7700	0.50	0.09	20.0000	ND	149	63 - 133	0.803	20	M2
Chlorobenzene	23.8200	0.50	0.13	20.0000	ND	119	81 - 115	2.51	20	M2
Chloroethane	26.2300	0.50	0.15	20.0000	ND	131	66 - 141	4.92	20	
Chloroform	25.4100	0.50	0.11	20.0000	0.180000	126	63 - 127	1.95	20	
Chloromethane	20.5200	0.50	0.12	20.0000	ND	103	0 - 207	1.16	20	
cis-1,2-Dichloroethene	23.4100	0.50	0.14	20.0000	ND	117	64 - 126	0.600	20	
cis-1,3-Dichloropropene	25.4600	0.50	0.13	20.0000	ND	127	70 - 141	1.98	20	
Dibromochloromethane	23.8700	0.50	0.16	20.0000	ND	119	67 - 135	3.01	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0065 - MSVOA_LL_W (continued)										
Matrix Spike Dup (B0G0065-MSD1) - Continued			**Source: 2001618-04**		Prepared: 7/6/2020 Analyzed: 7/6/2020					
Dibromomethane	23.4600	0.50	0.19	20.0000	ND	117	74 - 118	4.26	20	
Dichlorodifluoromethane	5.09000	0.50	0.18	20.0000	ND	25.4	14 - 181	3.29	20	
Ethylbenzene	24.7200	0.50	0.13	20.0000	ND	124	77 - 118	0.731	20	M2
Hexachlorobutadiene	23.7600	0.50	0.15	20.0000	ND	119	66 - 125	7.51	20	
Isopropylbenzene	23.2700	0.50	0.10	20.0000	ND	116	68 - 137	6.89	20	
m,p-Xylene	49.1900	1.0	0.19	40.0000	ND	123	78 - 126	0.632	20	
Methylene chloride	21.8500	1.0	0.71	20.0000	ND	109	51 - 149	0.920	20	
n-Butylbenzene	24.1900	0.50	0.11	20.0000	ND	121	63 - 127	4.74	20	
n-Propylbenzene	23.8700	0.50	0.10	20.0000	ND	119	69 - 124	5.91	20	
Naphthalene	18.3200	0.50	0.41	20.0000	ND	91.6	60 - 126	0.870	20	
o-Xylene	24.6700	0.50	0.13	20.0000	ND	123	79 - 126	2.88	20	
sec-Butylbenzene	24.3400	0.50	0.09	20.0000	ND	122	69 - 124	5.14	20	
Styrene	24.7000	0.50	0.13	20.0000	ND	124	80 - 127	11.5	20	
tert-Butylbenzene	23.7700	0.50	0.09	20.0000	ND	119	71 - 124	8.14	20	
Tetrachloroethene	24.0800	0.50	0.10	20.0000	ND	120	73 - 129	4.31	20	
Toluene	24.4100	0.50	0.12	20.0000	ND	122	78 - 121	0.0820	20	M2
trans-1,2-Dichloroethene	25.1000	0.50	0.09	20.0000	ND	126	58 - 141	2.26	20	
Trichloroethene	24.1500	0.50	0.10	20.0000	ND	121	73 - 126	1.08	20	
Trichlorofluoromethane	24.3400	0.50	0.23	20.0000	ND	122	62 - 146	1.91	20	
Vinyl chloride	20.0100	0.50	0.13	20.0000	ND	100	61 - 137	0.0999	20	
Surrogate: 1,2-Dichloroethane-d4	*28.85*			*25.0000*		*115*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.47*			*25.0000*		*102*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.57*			*25.0000*		*102*	*66 - 147*			
Surrogate: Toluene-d8	*25.00*			*25.0000*		*100*	*77 - 138*			

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1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0161 - MSSEMI_W										
Blank (B0G0161-BLK1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
1,4-Dioxane	ND	2.0	0.84							
Surrogate: 1,2-Dichlorobenzene-d	*69.02*			*100.000*		*69.0*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*86.73*			*100.000*		*86.7*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*103.4*			*100.000*		*103*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*100.7*			*100.000*		*101*	*13 - 150*			
LCS (B0G0161-BS1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
1,4-Dioxane	111.960	2.0	0.84	100.000		112	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*62.94*			*100.000*		*62.9*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*77.23*			*100.000*		*77.2*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*70.69*			*100.000*		*70.7*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*89.07*			*100.000*		*89.1*	*13 - 150*			
LCS Dup (B0G0161-BSD1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
1,4-Dioxane	105.940	2.0	0.84	100.000		106	75 - 155	5.53	20	
Surrogate: 1,2-Dichlorobenzene-d	*63.73*			*100.000*		*63.7*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*75.74*			*100.000*		*75.7*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*69.00*			*100.000*		*69.0*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*92.22*			*100.000*		*92.2*	*13 - 150*			

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1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0154 - MSSEMI_W										
Blank (B0G0154-BLK1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
1,4-Dioxane	ND	0.20	0.05							
Surrogate: 1,2-Dichlorobenzene-d	*0.5990*			*1.00000*		*59.9*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.6969*			*1.00000*		*69.7*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.7956*			*1.00000*		*79.6*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.6102*			*1.00000*		*61.0*	*15 - 121*			
LCS (B0G0154-BS1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
1,4-Dioxane	1.18022	0.20	0.05	1.00000		118	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*0.6726*			*1.00000*		*67.3*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.7279*			*1.00000*		*72.8*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.7580*			*1.00000*		*75.8*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.6671*			*1.00000*		*66.7*	*15 - 121*			
LCS Dup (B0G0154-BSD1)					Prepared: 7/9/2020 Analyzed: 7/9/2020					
1,4-Dioxane	1.18036	0.20	0.05	1.00000		118	75 - 155	0.0119	20	
Surrogate: 1,2-Dichlorobenzene-d	*0.6725*			*1.00000*		*67.3*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.7309*			*1.00000*		*73.1*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.7483*			*1.00000*		*74.8*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.6541*			*1.00000*		*65.4*	*15 - 121*			

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	09/01/2020

Notes and Definitions

M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
H2	Holding time for preparation or analysis exceeded.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 7/2/2020
Page 1 of 1

PROJECT: Raytheon Main GETS Monthly Sample

TASK NO.: 532.15

Project Manager Steve Netto
QA Manager Ross Horton
Phone 858.455.6500
Fax 858.455.6533

Sampled By: Ruben Sanchez

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)		Sulfuric Acid (H_2SO_4)	Ice	CONTAINERS: 40-ml VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	Total Suspended Solids by SM2540D	UV Absorption EPA 415.3 @254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270 SIM	Expected Concentration Range (ppb) for VOAs: 0 - 10	10 - 100	100 - 1,000	>1,000		SPECIAL HANDLING: 24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2001618-01	TB-070220	7/2/2020	8:00		X	X				X	2						X									X							X			
-02	CEFF	7/2/2020	11:00	X		X				X	3					1	X								X	X							X			
-03	CBT	7/2/2020	11:15	X		X				X	3					1	X								X	X							X			
-04	POX	7/2/2020	11:25	X		X			X	X	5	1	1			1	X	X		X	X				X	X							X			
-05	PF	7/2/2020	11:35	X					X	X	2		1	1	1					X	X	X	X										X			
-06	INF	7/2/2020	11:45	X		X				X	3	2				1	X	X	X					X				X					X			
-07	EW-02	7/2/2020	12:15	X		X				X	3	1				1	X		X					X			X						X			
-08	MW-29	7/2/2020	12:30	X		X				X	3	1				1	X		X					X				X					X			
Total number of containers per analysis:											24	5	2	1	1	6																				Total No. of Containers: 39

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
H+A	7-2-20 12:50	H&A	7-2-2020 12:50
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
H&A	7-2-2020 1535	ATL	7.2.2020 15:35

- [ ] No. of containers correct
- [ ] Received in good condition
- [ ] Custody seals secure
- [ ] Conforms to COC document

2.8 ICE Temperature on receipt

Laboratory
Advanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

Instructions
1. Fill out form completely and sign only after verified for completeness

Complete in ballpoint pen. Draw one line through error, initial and date correction
Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
Note applicable preservatives, special instructions, and deviations from typical environmental samples.
Consult project QA documents for specific instructions.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 7/2/2020
Page 1 of 1

PROJECT: Raytheon Main GETS Lab Requested QC

TASK NO.: 532.15

Project Manager: Steve Netto
QA Manager: Ross Horton
Phone: 858.455.6500
Fax: 858.455.6533

Sampled By: Ruben Sanchez

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	MATRIX: Groundwater	MATRIX: Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	PRESERVATION: Nitric Acid (HNO_3)	PRESERVATION:	PRESERVATION: Sulfuric Acid (H_2SO_4)	PRESERVATION: Ice	CONTAINERS: 40-ml VOA	CONTAINERS: 125 mL Poly	CONTAINERS: 250 mL Poly	CONTAINERS: 500 Ml Poly	CONTAINERS: 250 mL Glass	CONTAINERS: 1L Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	ANALYSIS REQUESTED: Bromate by EPA 317	ANALYSIS REQUESTED: Bromide by EPA 300	ANALYSIS REQUESTED: Alkalinity by SM2320B	ANALYSIS REQUESTED: Total Organic Carbon by SM5310B	ANALYSIS REQUESTED: Total Suspended Solids by SM2540D	ANALYSIS REQUESTED: UV Absorption EPA 415.3 @254 nm	ANALYSIS REQUESTED: 1,4-Dioxane by EPA 8270C MOD	ANALYSIS REQUESTED: 1,4-Dioxane by EPA 8270 SIM	Expected Concentration Range (ppb) for VOAs: 0 - 10	Expected Concentration Range (ppb) for VOAs: 10 - 100	Expected Concentration Range (ppb) for VOAs: 100 - 1,000	Expected Concentration Range (ppb) for VOAs: >1,000	SPECIAL HANDLING: 24 hr TAT	SPECIAL HANDLING: 48 Hour TAT	SPECIAL HANDLING: 5 Day TAT	SPECIAL HANDLING: Level IV Data Validation Requested	SPECIAL HANDLING: MS/MSD Requested	REMARKS
2001689-01	CBT-QC	7/2/2020	11:15	X						X						1									X	X								
02 10	POX-QC	7/2/2020	11:25	X		X			X	X	4					1	X				X				X	X						X		Samples are included per
02 11	INF-QC	7/2/2020	11:45	X						X						1								X			X				X		laboratory request for QC
02 12	EW-02-QC	7/2/2020	12:15	X						X						1								X			X				X		purposes. Do not include
																																	samples or results
																																	in final report.
Total number of containers per analysis:											4					4																	Total No. of Containers: 8

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
H+A	7-2-20 12:50	H+A	7-2-2020 12:50
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
H+A	7-2-2020 1535	ATL	7-2-2020 1535

- [ ] No. of containers correct
- [ ] Received in good condition
- [ ] Custody seals secure
- [ ] Conforms to COC document

28 / ICE — Temperature on receipt

Laboratory

Advanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

Instructions
completely and sign
allpoint pen. Draw
Indicate the
Note applicable
Consult project QA documents for specific instructions.

element

9240 Santa Fe Springs Road
Santa Fe Springs, CA
90670 USA

P: 1 562 948 2225
F: 1 562 948 5850
info.santafesprings@element.com
element.com

Laboratory Report

July 21, 2020

Advanced Technology Laboratories
PO Box 92797
Long Beach, CA 90809-2797

Attn: Rachelle Arada

Element Job No:	240407
Purchase Order:	COD - CC
Project Name:	2001618 / Groundwater
Samples Received:	2
Date Received:	07-06-2020

Analysis	Page
Bromate by SOP 5600, Rev 3	2

Michael Shelton
Technical Director

Robert Stead
Senior Chemist

This report is to be reproduced in its entirety. All documents and data will be destroyed 7 years past invoice.
All samples will be disposed of 30 days past invoice unless prior arrangements have been made.
The results given in this report apply only to the sample(s) provided and as received.

Bromate by SOP 5600, Rev 3
Ion Chromatography-Tandem Mass Spectrometry

Sample preparation: An aliquot of sample was spiked with internal standard (bromate-$^{18}O_3$), and diluted with water. The sample solutions were analyzed using IC-MS/MS.

Parts Per Billion (µg/L)

Sample ID	Result
ATL Lab#: 2001618-04 / POX	ND
ATL Lab#: 2001618-06 / INF	ND
Method Blank	ND
Detection Limit	0.5

Dates Analyzed: 07-14-2020

Quality Control Summary

Sample ID: ATL Lab#: 2001618-04 / POX

Analyte	Sample Result	Spike Conc	Spike Result	Spike % Rec	Spike Duplicate	Duplicate % Rec	RPD
Bromate	ND	5.00	4.72	94	5.06	101	7
QC Guidelines				80-120		80-120	NMT 15

This report is to be reproduced in its entirety. All documents and data will be destroyed 7 years past invoice.
All samples will be disposed of 30 days past invoice unless prior arrangements have been made.
The results given in this report apply only to the sample(s) provided and as received.

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 2001618

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada
(Rachelle.Arada@atlglobal.com)

Sampler: Ruben Sanchez

RECEIVING LABORATORY:

Element Materials Technology
9240 Santa Fe Springs Road
Santa Fe Springs, CA 90670
Phone :(562) 948-2225
Fax: (562) 948-5850
PO#: SC14767, Standard TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 2001618-04 POX		**Water**	**07/02/20 11:25**	
Bromate_ICMS/MS_SUB	**07/20/20 17:00**	07/30/20 11:25		
[Bromate by IC-MS/MS]				
1 Poly Unpres - 125mL				
ATL Lab#: 2001618-06 INF		**Water**	**07/02/20 11:45**	
Bromate_ICMS/MS_SUB	**07/20/20 17:00**	07/30/20 11:45		
[Bromate by IC-MS/MS]				
1 Poly Unpres - 125mL				

07.06.2020 cl: ① Also has: D

240407

Approved by: ATL Project Manager	7/6/2020 Date		
Released By ATL Sample Control	7.6.2020 Date	Received By Courier	7/6/20 Date
Released By Courier	7/6/20 15:01 Date	Received By Subcontract Laboratory	Element 07.06.2020 3:00pm Date
Released By	Date	Received By	Date

C:\PROGRAM FILES (X86)\PROMIUM\ELEMENT\PRINT\SCO_ATL(A.3).RPT

July 23, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001715
Client Reference : Ratheon Main GETS Mid Month Sample 532.15

Enclosed are the results for sample(s) received on July 16, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	07/23/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-071620	2001715-01	Water	7/16/20 8:00	7/16/20 16:15
CEFF	2001715-02	Groundwater	7/16/20 9:10	7/16/20 16:15
CBT	2001715-03	Groundwater	7/16/20 9:30	7/16/20 16:15
POX	2001715-04	Groundwater	7/16/20 9:45	7/16/20 16:15
INF	2001715-05	Groundwater	7/16/20 10:15	7/16/20 16:15
EW-02	2001715-06	Groundwater	7/16/20 11:45	7/16/20 16:15
MW-29	2001715-07	Groundwater	7/16/20 12:10	7/16/20 16:15

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: TB-071620

Lab ID: 2001715-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,1,1-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,1,2-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,1-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,1-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,1-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,2,3-Trichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,2-Dibromoethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,2-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,2-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,3-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,3-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
1,4-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
2,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
2-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
4-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
4-Isopropyltoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Benzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Bromobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Bromodichloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Bromoform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Bromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Carbon tetrachloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Chlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Chloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Chloroform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Chloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Dibromochloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: TB-071620

Lab ID: 2001715-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Dichlorodifluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Ethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Hexachlorobutadiene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Isopropylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
m,p-Xylene	ND	1.0	1	B0G0294	07/17/2020	07/17/20 11:40	
Methylene chloride	ND	1.0	1	B0G0294	07/17/2020	07/17/20 11:40	
n-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
n-Propylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Naphthalene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
o-Xylene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
sec-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Styrene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
tert-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Tetrachloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Toluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Trichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Trichlorofluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Vinyl chloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 11:40	
Surrogate: 1,2-Dichloroethane-d4	*101 %*	*59 - 158*		B0G0294	07/17/2020	*07/17/20 11:40*	
Surrogate: 4-Bromofluorobenzene	*96.4 %*	*71 - 127*		B0G0294	07/17/2020	*07/17/20 11:40*	
Surrogate: Dibromofluoromethane	*100 %*	*66 - 147*		B0G0294	07/17/2020	*07/17/20 11:40*	
Surrogate: Toluene-d8	*102 %*	*77 - 138*		B0G0294	07/17/2020	*07/17/20 11:40*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: CEFF

Lab ID: 2001715-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,1,1-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,1,2-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,1-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,1-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,1-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,2,3-Trichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,2-Dibromoethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,2-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,2-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,3-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,3-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
1,4-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
2,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
2-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
4-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
4-Isopropyltoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Benzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Bromobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Bromodichloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Bromoform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Bromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Carbon tetrachloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Chlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Chloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Chloroform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Chloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Dibromochloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: CEFF

Lab ID: 2001715-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Dichlorodifluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Ethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Hexachlorobutadiene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Isopropylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
m,p-Xylene	ND	1.0	1	B0G0294	07/17/2020	07/17/20 12:01	
Methylene chloride	ND	1.0	1	B0G0294	07/17/2020	07/17/20 12:01	
n-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
n-Propylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Naphthalene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
o-Xylene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
sec-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Styrene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
tert-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Tetrachloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Toluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Trichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Trichlorofluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Vinyl chloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:01	
Surrogate: 1,2-Dichloroethane-d4	*101 %*	*59 - 158*		B0G0294	07/17/2020	*07/17/20 12:01*	
Surrogate: 4-Bromofluorobenzene	*94.9 %*	*71 - 127*		B0G0294	07/17/2020	*07/17/20 12:01*	
Surrogate: Dibromofluoromethane	*101 %*	*66 - 147*		B0G0294	07/17/2020	*07/17/20 12:01*	
Surrogate: Toluene-d8	*104 %*	*77 - 138*		B0G0294	07/17/2020	*07/17/20 12:01*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: CEFF

Lab ID: 2001715-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0G0370	07/21/2020	07/21/20 15:57	
Surrogate: 1,2-Dichlorobenzene-d4	*80.9 %*		*13 - 99*		B0G0370	07/21/2020	*07/21/20 15:57*	
Surrogate: 2-Fluorobiphenyl	*105 %*		*8 - 111*		B0G0370	07/21/2020	*07/21/20 15:57*	
Surrogate: 4-Terphenyl-d14	*85.6 %*		*12 - 113*		B0G0370	07/21/2020	*07/21/20 15:57*	
Surrogate: Nitrobenzene-d5	*75.1 %*		*15 - 121*		B0G0370	07/21/2020	*07/21/20 15:57*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: CBT

Lab ID: 2001715-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,1,1-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,1,2-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,1-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,1-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,1-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,2,3-Trichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,2-Dibromoethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,2-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,2-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,3-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,3-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
1,4-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
2,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
2-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
4-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
4-Isopropyltoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Benzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Bromobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Bromodichloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Bromoform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Bromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Carbon tetrachloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Chlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Chloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Chloroform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Chloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Dibromochloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	

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Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: CBT

Lab ID: 2001715-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Dichlorodifluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Ethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Hexachlorobutadiene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Isopropylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
m,p-Xylene	ND	1.0	1	B0G0294	07/17/2020	07/17/20 12:23	
Methylene chloride	ND	1.0	1	B0G0294	07/17/2020	07/17/20 12:23	
n-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
n-Propylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Naphthalene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
o-Xylene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
sec-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Styrene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
tert-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Tetrachloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Toluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Trichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Trichlorofluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Vinyl chloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:23	
Surrogate: 1,2-Dichloroethane-d4	*102 %*	*59 - 158*		B0G0294	07/17/2020	*07/17/20 12:23*	
Surrogate: 4-Bromofluorobenzene	*97.8 %*	*71 - 127*		B0G0294	07/17/2020	*07/17/20 12:23*	
Surrogate: Dibromofluoromethane	*97.4 %*	*66 - 147*		B0G0294	07/17/2020	*07/17/20 12:23*	
Surrogate: Toluene-d8	*94.8 %*	*77 - 138*		B0G0294	07/17/2020	*07/17/20 12:23*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: CBT

Lab ID: 2001715-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0G0370	07/21/2020	07/21/20 16:23	
Surrogate: 1,2-Dichlorobenzene-d4	*84.2 %*		*13 - 99*		B0G0370	07/21/2020	*07/21/20 16:23*	
Surrogate: 2-Fluorobiphenyl	*101 %*		*8 - 111*		B0G0370	07/21/2020	*07/21/20 16:23*	
Surrogate: 4-Terphenyl-d14	*78.1 %*		*12 - 113*		B0G0370	07/21/2020	*07/21/20 16:23*	
Surrogate: Nitrobenzene-d5	*62.4 %*		*15 - 121*		B0G0370	07/21/2020	*07/21/20 16:23*	

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Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: POX

Lab ID: 2001715-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,1,1-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,1,2-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,1-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,1-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,1-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,2,3-Trichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,2-Dibromoethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,2-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,2-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,3-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,3-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
1,4-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
2,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
2-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
4-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
4-Isopropyltoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Benzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Bromobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Bromodichloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Bromoform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Bromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Carbon tetrachloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Chlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Chloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Chloroform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Chloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Dibromochloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	

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Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: POX

Lab ID: 2001715-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Dichlorodifluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Ethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Hexachlorobutadiene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Isopropylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
m,p-Xylene	ND	1.0	1	B0G0294	07/17/2020	07/17/20 12:44	
Methylene chloride	ND	1.0	1	B0G0294	07/17/2020	07/17/20 12:44	
n-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
n-Propylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Naphthalene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
o-Xylene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
sec-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Styrene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
tert-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Tetrachloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Toluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Trichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Trichlorofluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Vinyl chloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 12:44	
Surrogate: 1,2-Dichloroethane-d4	*97.6 %*	*59 - 158*		B0G0294	07/17/2020	*07/17/20 12:44*	
Surrogate: 4-Bromofluorobenzene	*94.6 %*	*71 - 127*		B0G0294	07/17/2020	*07/17/20 12:44*	
Surrogate: Dibromofluoromethane	*96.8 %*	*66 - 147*		B0G0294	07/17/2020	*07/17/20 12:44*	
Surrogate: Toluene-d8	*97.8 %*	*77 - 138*		B0G0294	07/17/2020	*07/17/20 12:44*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: POX

Lab ID: 2001715-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0G0370	07/21/2020	07/21/20 16:50	
Surrogate: 1,2-Dichlorobenzene-d4	*92.7 %*		*13 - 99*		B0G0370	07/21/2020	*07/21/20 16:50*	
Surrogate: 2-Fluorobiphenyl	*105 %*		*8 - 111*		B0G0370	07/21/2020	*07/21/20 16:50*	
Surrogate: 4-Terphenyl-d14	*73.4 %*		*12 - 113*		B0G0370	07/21/2020	*07/21/20 16:50*	
Surrogate: Nitrobenzene-d5	*67.0 %*		*15 - 121*		B0G0370	07/21/2020	*07/21/20 16:50*	

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San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: INF

Lab ID: 2001715-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,1,1-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,1,2-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,1-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,1-Dichloroethene	**31**	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,1-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,2,3-Trichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,2-Dibromoethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,2-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,2-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,3-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,3-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
1,4-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
2,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
2-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
4-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
4-Isopropyltoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Benzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Bromobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Bromodichloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Bromoform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Bromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Carbon tetrachloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Chlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Chloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Chloroform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Chloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Dibromochloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	

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Lab ID: 2001715-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Dichlorodifluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Ethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Hexachlorobutadiene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Isopropylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
m,p-Xylene	ND	1.0	1	B0G0294	07/17/2020	07/17/20 13:27	
Methylene chloride	ND	1.0	1	B0G0294	07/17/2020	07/17/20 13:27	
n-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
n-Propylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Naphthalene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
o-Xylene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
sec-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Styrene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
tert-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Tetrachloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Toluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Trichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Trichlorofluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Vinyl chloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:27	
Surrogate: 1,2-Dichloroethane-d4	*100 %*	*59 - 158*		B0G0294	07/17/2020	*07/17/20 13:27*	
Surrogate: 4-Bromofluorobenzene	*97.6 %*	*71 - 127*		B0G0294	07/17/2020	*07/17/20 13:27*	
Surrogate: Dibromofluoromethane	*113 %*	*66 - 147*		B0G0294	07/17/2020	*07/17/20 13:27*	
Surrogate: Toluene-d8	*102 %*	*77 - 138*		B0G0294	07/17/2020	*07/17/20 13:27*	

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Lab ID: 2001715-05

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**18**	2.0	1	B0G0371	07/21/2020	07/21/20 18:20	
Surrogate: 1,2-Dichlorobenzene-d4	*74.6 %*		*17 - 119*		B0G0371	07/21/2020	*07/21/20 18:20*	
Surrogate: 2-Fluorobiphenyl	*87.6 %*		*10 - 133*		B0G0371	07/21/2020	*07/21/20 18:20*	
Surrogate: 4-Terphenyl-d14	*109 %*		*5 - 139*		B0G0371	07/21/2020	*07/21/20 18:20*	
Surrogate: Nitrobenzene-d5	*118 %*		*13 - 150*		B0G0371	07/21/2020	*07/21/20 18:20*	

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Client Sample ID: EW-02

Lab ID: 2001715-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,1,1-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,1,2-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,1-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,1-Dichloroethene	**12**	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,1-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,2,3-Trichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,2-Dibromoethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,2-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,2-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,3-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,3-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
1,4-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
2,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
2-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
4-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
4-Isopropyltoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Benzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Bromobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Bromodichloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Bromoform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Bromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Carbon tetrachloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Chlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Chloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Chloroform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Chloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Dibromochloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	

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Lab ID: 2001715-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Dichlorodifluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Ethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Hexachlorobutadiene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Isopropylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
m,p-Xylene	ND	1.0	1	B0G0294	07/17/2020	07/17/20 13:06	
Methylene chloride	ND	1.0	1	B0G0294	07/17/2020	07/17/20 13:06	
n-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
n-Propylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Naphthalene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
o-Xylene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
sec-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Styrene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
tert-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Tetrachloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Toluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Trichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Trichlorofluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Vinyl chloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 13:06	
Surrogate: 1,2-Dichloroethane-d4	*102 %*	*59 - 158*		B0G0294	07/17/2020	*07/17/20 13:06*	
Surrogate: 4-Bromofluorobenzene	*96.5 %*	*71 - 127*		B0G0294	07/17/2020	*07/17/20 13:06*	
Surrogate: Dibromofluoromethane	*95.7 %*	*66 - 147*		B0G0294	07/17/2020	*07/17/20 13:06*	
Surrogate: Toluene-d8	*93.1 %*	*77 - 138*		B0G0294	07/17/2020	*07/17/20 13:06*	

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Client Sample ID: EW-02

Lab ID: 2001715-06

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**7.4**	2.0	1	B0G0371	07/21/2020	07/21/20 18:46	
Surrogate: 1,2-Dichlorobenzene-d4	*84.0 %*		*17 - 119*		B0G0371	07/21/2020	*07/21/20 18:46*	
Surrogate: 2-Fluorobiphenyl	*97.4 %*		*10 - 133*		B0G0371	07/21/2020	*07/21/20 18:46*	
Surrogate: 4-Terphenyl-d14	*120 %*		*5 - 139*		B0G0371	07/21/2020	*07/21/20 18:46*	
Surrogate: Nitrobenzene-d5	*134 %*		*13 - 150*		B0G0371	07/21/2020	*07/21/20 18:46*	

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Client Sample ID: MW-29

Lab ID: 2001715-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,1,1-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,1,2-Trichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,1-Dichloroethane	**1.4**	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,1-Dichloroethene	**140**	2.5	5	B0G0294	07/17/2020	07/17/20 14:10	
1,1-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,2,3-Trichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,2,3-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,2,4-Trichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,2,4-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,2-Dibromoethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,2-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,2-Dichloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,3,5-Trimethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,3-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,3-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
1,4-Dichlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
2,2-Dichloropropane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
2-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
4-Chlorotoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
4-Isopropyltoluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Benzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Bromobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Bromodichloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Bromoform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Bromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Carbon tetrachloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Chlorobenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Chloroethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Chloroform	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Chloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
cis-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
cis-1,3-Dichloropropene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Dibromochloromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	

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Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

Client Sample ID: MW-29

Lab ID: 2001715-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Dichlorodifluoromethane	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Ethylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Hexachlorobutadiene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Isopropylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
m,p-Xylene	ND	1.0	1	B0G0294	07/17/2020	07/17/20 14:31	
Methylene chloride	ND	1.0	1	B0G0294	07/17/2020	07/17/20 14:31	
n-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
n-Propylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Naphthalene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
o-Xylene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
sec-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Styrene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
tert-Butylbenzene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Tetrachloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Toluene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
trans-1,2-Dichloroethene	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Trichloroethene	**1.2**	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Trichlorofluoromethane	**0.63**	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Vinyl chloride	ND	0.50	1	B0G0294	07/17/2020	07/17/20 14:31	
Surrogate: 1,2-Dichloroethane-d4	*98.7 %*	*59 - 158*		B0G0294	07/17/2020	*07/17/20 14:10*	
Surrogate: 1,2-Dichloroethane-d4	*101 %*	*59 - 158*		B0G0294	07/17/2020	*07/17/20 14:31*	
Surrogate: 4-Bromofluorobenzene	*93.0 %*	*71 - 127*		B0G0294	07/17/2020	*07/17/20 14:31*	
Surrogate: 4-Bromofluorobenzene	*98.3 %*	*71 - 127*		B0G0294	07/17/2020	*07/17/20 14:10*	
Surrogate: Dibromofluoromethane	*99.5 %*	*66 - 147*		B0G0294	07/17/2020	*07/17/20 14:31*	
Surrogate: Dibromofluoromethane	*106 %*	*66 - 147*		B0G0294	07/17/2020	*07/17/20 14:10*	
Surrogate: Toluene-d8	*102 %*	*77 - 138*		B0G0294	07/17/2020	*07/17/20 14:31*	
Surrogate: Toluene-d8	*104 %*	*77 - 138*		B0G0294	07/17/2020	*07/17/20 14:10*	

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Hargis & Associates, Inc.		Project Number :	Ratheon Main GETS Mid Month Sample
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San Diego , CA 92122		Reported :	07/23/2020

Client Sample ID: MW-29

Lab ID: 2001715-07

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**83**	2.0	1	B0G0371	07/21/2020	07/21/20 19:12	
Surrogate: 1,2-Dichlorobenzene-d4	*65.5 %*		*17 - 119*		B0G0371	07/21/2020	*07/21/20 19:12*	
Surrogate: 2-Fluorobiphenyl	*80.5 %*		*10 - 133*		B0G0371	07/21/2020	*07/21/20 19:12*	
Surrogate: 4-Terphenyl-d14	*112 %*		*5 - 139*		B0G0371	07/21/2020	*07/21/20 19:12*	
Surrogate: Nitrobenzene-d5	*110 %*		*13 - 150*		B0G0371	07/21/2020	*07/21/20 19:12*	

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Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
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San Diego , CA 92122	Reported : 07/23/2020

QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0294 - MSVOA_LL_W										
Blank (B0G0294-BLK1)					Prepared: 7/17/2020 Analyzed: 7/17/2020					
1,1,1,2-Tetrachloroethane	ND	0.50	0.11							
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,1-Dichloropropene	ND	0.50	0.13							
1,2,3-Trichloropropane	ND	0.50	0.39							
1,2,3-Trichlorobenzene	ND	0.50	0.18							
1,2,4-Trichlorobenzene	ND	0.50	0.16							
1,2,4-Trimethylbenzene	ND	0.50	0.14							
1,2-Dibromo-3-chloropropane	ND	0.50	0.41							
1,2-Dibromoethane	ND	0.50	0.24							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3,5-Trimethylbenzene	ND	0.50	0.13							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,3-Dichloropropane	ND	0.50	0.21							
1,4-Dichlorobenzene	ND	0.50	0.17							
2,2-Dichloropropane	ND	0.50	0.38							
2-Chlorotoluene	ND	0.50	0.11							
4-Chlorotoluene	ND	0.50	0.12							
4-Isopropyltoluene	ND	0.50	0.11							
Benzene	ND	0.50	0.13							
Bromobenzene	ND	0.50	0.21							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,2-Dichloroethene	ND	0.50	0.14							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Dibromomethane	ND	0.50	0.19							
Dichlorodifluoromethane	ND	0.50	0.18							

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San Diego , CA 92122	Reported : 07/23/2020

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0294 - MSVOA_LL_W (continued)										
Blank (B0G0294-BLK1) - Continued					Prepared: 7/17/2020 Analyzed: 7/17/2020					
Ethylbenzene	ND	0.50	0.13							
Hexachlorobutadiene	ND	0.50	0.15							
Isopropylbenzene	ND	0.50	0.10							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
n-Butylbenzene	ND	0.50	0.11							
n-Propylbenzene	ND	0.50	0.10							
Naphthalene	ND	0.50	0.41							
o-Xylene	ND	0.50	0.13							
sec-Butylbenzene	ND	0.50	0.09							
Styrene	ND	0.50	0.13							
tert-Butylbenzene	ND	0.50	0.09							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*25.28*			*25.0000*		*101*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*24.85*			*25.0000*		*99.4*	*71 - 127*			
Surrogate: Dibromofluoromethan	*24.24*			*25.0000*		*97.0*	*66 - 147*			
Surrogate: Toluene-d8	*23.49*			*25.0000*		*94.0*	*77 - 138*			
LCS (B0G0294-BS1)					Prepared: 7/17/2020 Analyzed: 7/17/2020					
1,1,1,2-Tetrachloroethane	17.9500	0.50	0.11	20.0000		89.8	71 - 133			
1,1,1-Trichloroethane	20.7900	0.50	0.21	20.0000		104	62 - 124			
1,1,2,2-Tetrachloroethane	18.1400	0.50	0.36	20.0000		90.7	50 - 131			
1,1,2-Trichloroethane	18.6800	0.50	0.25	20.0000		93.4	77 - 121			
1,1-Dichloroethane	21.5400	0.50	0.09	20.0000		108	52 - 130			
1,1-Dichloroethene	21.9200	0.50	0.13	20.0000		110	61 - 136			
1,1-Dichloropropene	19.8900	0.50	0.13	20.0000		99.4	80 - 128			
1,2,3-Trichloropropane	18.0000	0.50	0.39	20.0000		90.0	59 - 126			
1,2,3-Trichlorobenzene	18.0700	0.50	0.18	20.0000		90.4	69 - 138			
1,2,4-Trichlorobenzene	18.3200	0.50	0.16	20.0000		91.6	78 - 125			
1,2,4-Trimethylbenzene	19.8600	0.50	0.14	20.0000		99.3	70 - 126			
1,2-Dibromo-3-chloropropane	16.4000	0.50	0.41	20.0000		82.0	58 - 127			
1,2-Dibromoethane	18.5400	0.50	0.24	20.0000		92.7	76 - 120			
1,2-Dichlorobenzene	18.4300	0.50	0.20	20.0000		92.2	82 - 117			
1,2-Dichloroethane	18.7300	0.50	0.20	20.0000		93.6	66 - 126			
1,2-Dichloropropane	19.8900	0.50	0.15	20.0000		99.4	70 - 117			
1,3,5-Trimethylbenzene	19.1700	0.50	0.13	20.0000		95.8	71 - 125			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0294 - MSVOA_LL_W (continued)										
LCS (B0G0294-BS1) - Continued					Prepared: 7/17/2020 Analyzed: 7/17/2020					
1,3-Dichlorobenzene	18.1800	0.50	0.16	20.0000		90.9	81 - 116			
1,3-Dichloropropane	18.7000	0.50	0.21	20.0000		93.5	69 - 124			
1,4-Dichlorobenzene	18.1500	0.50	0.17	20.0000		90.8	80 - 114			
2,2-Dichloropropane	16.7700	0.50	0.38	20.0000		83.8	58 - 132			
2-Chlorotoluene	18.3100	0.50	0.11	20.0000		91.6	71 - 119			
4-Chlorotoluene	18.1700	0.50	0.12	20.0000		90.8	72 - 122			
4-Isopropyltoluene	19.1800	0.50	0.11	20.0000		95.9	69 - 126			
Benzene	18.3200	0.50	0.13	20.0000		91.6	80 - 116			
Bromobenzene	18.1400	0.50	0.21	20.0000		90.7	77 - 118			
Bromodichloromethane	18.6800	0.50	0.14	20.0000		93.4	73 - 118			
Bromoform	17.3100	0.50	0.20	20.0000		86.6	65 - 133			
Bromomethane	22.2000	0.50	0.40	20.0000		111	7 - 205			
Carbon tetrachloride	20.9900	0.50	0.09	20.0000		105	63 - 133			
Chlorobenzene	18.5600	0.50	0.13	20.0000		92.8	86 - 113			
Chloroethane	21.4100	0.50	0.15	20.0000		107	66 - 141			
Chloroform	22.1300	0.50	0.11	20.0000		111	63 - 127			
Chloromethane	20.0400	0.50	0.12	20.0000		100	0 - 207			
cis-1,2-Dichloroethene	20.9700	0.50	0.14	20.0000		105	64 - 126			
cis-1,3-Dichloropropene	18.3000	0.50	0.13	20.0000		91.5	70 - 141			
Dibromochloromethane	17.3100	0.50	0.16	20.0000		86.6	67 - 135			
Dibromomethane	20.2300	0.50	0.19	20.0000		101	74 - 118			
Dichlorodifluoromethane	15.6600	0.50	0.18	20.0000		78.3	14 - 181			
Ethylbenzene	18.9800	0.50	0.13	20.0000		94.9	77 - 118			
Hexachlorobutadiene	17.7300	0.50	0.15	20.0000		88.6	66 - 125			
Isopropylbenzene	18.4900	0.50	0.10	20.0000		92.4	68 - 137			
m,p-Xylene	38.9000	1.0	0.19	40.0000		97.2	78 - 126			
Methylene chloride	22.6800	1.0	0.71	20.0000		113	51 - 149			
n-Butylbenzene	19.4200	0.50	0.11	20.0000		97.1	63 - 127			
n-Propylbenzene	18.6200	0.50	0.10	20.0000		93.1	69 - 124			
Naphthalene	18.8300	0.50	0.41	20.0000		94.2	60 - 126			
o-Xylene	18.4400	0.50	0.13	20.0000		92.2	79 - 126			
sec-Butylbenzene	18.7500	0.50	0.09	20.0000		93.8	69 - 124			
Styrene	22.0500	0.50	0.13	20.0000		110	80 - 127			
tert-Butylbenzene	18.3900	0.50	0.09	20.0000		92.0	71 - 124			
Tetrachloroethene	17.9600	0.50	0.10	20.0000		89.8	73 - 129			
Toluene	19.4000	0.50	0.12	20.0000		97.0	78 - 121			
trans-1,2-Dichloroethene	20.9800	0.50	0.09	20.0000		105	58 - 141			
Trichloroethene	17.4600	0.50	0.10	20.0000		87.3	73 - 126			
Trichlorofluoromethane	20.0000	0.50	0.23	20.0000		100	62 - 146			
Vinyl chloride	19.0900	0.50	0.13	20.0000		95.4	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*25.38*			*25.0000*		*102*	*59 - 158*			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0294 - MSVOA_LL_W (continued)										
LCS (B0G0294-BS1) - Continued						Prepared: 7/17/2020 Analyzed: 7/17/2020				
Surrogate: 4-Bromofluorobenzene	*25.07*			*25.0000*		*100*	*71 - 127*			
Surrogate: Dibromofluoromethan	*29.12*			*25.0000*		*116*	*66 - 147*			
Surrogate: Toluene-d8	*26.03*			*25.0000*		*104*	*77 - 138*			
LCS Dup (B0G0294-BSD1)						Prepared: 7/17/2020 Analyzed: 7/17/2020				
1,1,1,2-Tetrachloroethane	17.9400	0.50	0.11	20.0000		89.7	71 - 133	0.0557	20	
1,1,1-Trichloroethane	17.6100	0.50	0.21	20.0000		88.0	62 - 124	16.6	20	
1,1,2,2-Tetrachloroethane	17.7700	0.50	0.36	20.0000		88.8	50 - 131	2.06	20	
1,1,2-Trichloroethane	17.9400	0.50	0.25	20.0000		89.7	77 - 121	4.04	20	
1,1-Dichloroethane	20.8500	0.50	0.09	20.0000		104	52 - 130	3.26	20	
1,1-Dichloroethene	20.7200	0.50	0.13	20.0000		104	61 - 136	5.63	20	
1,1-Dichloropropene	18.7900	0.50	0.13	20.0000		94.0	80 - 128	5.69	20	
1,2,3-Trichloropropane	18.0300	0.50	0.39	20.0000		90.2	59 - 126	0.167	20	
1,2,3-Trichlorobenzene	17.7900	0.50	0.18	20.0000		89.0	69 - 138	1.56	20	
1,2,4-Trichlorobenzene	17.7300	0.50	0.16	20.0000		88.6	78 - 125	3.27	20	
1,2,4-Trimethylbenzene	20.0000	0.50	0.14	20.0000		100	70 - 126	0.702	20	
1,2-Dibromo-3-chloropropane	16.5300	0.50	0.41	20.0000		82.6	58 - 127	0.790	20	
1,2-Dibromoethane	17.6400	0.50	0.24	20.0000		88.2	76 - 120	4.98	20	
1,2-Dichlorobenzene	18.6900	0.50	0.20	20.0000		93.4	82 - 117	1.40	20	
1,2-Dichloroethane	18.0100	0.50	0.20	20.0000		90.0	66 - 126	3.92	20	
1,2-Dichloropropane	18.9800	0.50	0.15	20.0000		94.9	70 - 117	4.68	20	
1,3,5-Trimethylbenzene	19.1500	0.50	0.13	20.0000		95.8	71 - 125	0.104	20	
1,3-Dichlorobenzene	18.3600	0.50	0.16	20.0000		91.8	81 - 116	0.985	20	
1,3-Dichloropropane	17.7500	0.50	0.21	20.0000		88.8	69 - 124	5.21	20	
1,4-Dichlorobenzene	18.3000	0.50	0.17	20.0000		91.5	80 - 114	0.823	20	
2,2-Dichloropropane	17.9700	0.50	0.38	20.0000		89.8	58 - 132	6.91	20	
2-Chlorotoluene	18.4100	0.50	0.11	20.0000		92.0	71 - 119	0.545	20	
4-Chlorotoluene	17.9200	0.50	0.12	20.0000		89.6	72 - 122	1.39	20	
4-Isopropyltoluene	19.0600	0.50	0.11	20.0000		95.3	69 - 126	0.628	20	
Benzene	18.0000	0.50	0.13	20.0000		90.0	80 - 116	1.76	20	
Bromobenzene	18.1300	0.50	0.21	20.0000		90.6	77 - 118	0.0551	20	
Bromodichloromethane	18.4100	0.50	0.14	20.0000		92.0	73 - 118	1.46	20	
Bromoform	17.0900	0.50	0.20	20.0000		85.4	65 - 133	1.28	20	
Bromomethane	23.1000	0.50	0.40	20.0000		116	7 - 205	3.97	20	
Carbon tetrachloride	19.8700	0.50	0.09	20.0000		99.4	63 - 133	5.48	20	
Chlorobenzene	18.3200	0.50	0.13	20.0000		91.6	86 - 113	1.30	20	
Chloroethane	20.1900	0.50	0.15	20.0000		101	66 - 141	5.87	20	
Chloroform	21.3500	0.50	0.11	20.0000		107	63 - 127	3.59	20	
Chloromethane	19.4200	0.50	0.12	20.0000		97.1	0 - 207	3.14	20	
cis-1,2-Dichloroethene	20.6700	0.50	0.14	20.0000		103	64 - 126	1.44	20	
cis-1,3-Dichloropropene	18.1500	0.50	0.13	20.0000		90.8	70 - 141	0.823	20	
Dibromochloromethane	17.5500	0.50	0.16	20.0000		87.8	67 - 135	1.38	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0294 - MSVOA_LL_W (continued)										
LCS Dup (B0G0294-BSD1) - Continued					Prepared: 7/17/2020 Analyzed: 7/17/2020					
Dibromomethane	18.9200	0.50	0.19	20.0000		94.6	74 - 118	6.69	20	
Dichlorodifluoromethane	15.4000	0.50	0.18	20.0000		77.0	14 - 181	1.67	20	
Ethylbenzene	18.7800	0.50	0.13	20.0000		93.9	77 - 118	1.06	20	
Hexachlorobutadiene	17.6800	0.50	0.15	20.0000		88.4	66 - 125	0.282	20	
Isopropylbenzene	18.4800	0.50	0.10	20.0000		92.4	68 - 137	0.0541	20	
m,p-Xylene	37.7100	1.0	0.19	40.0000		94.3	78 - 126	3.11	20	
Methylene chloride	21.9200	1.0	0.71	20.0000		110	51 - 149	3.41	20	
n-Butylbenzene	19.4300	0.50	0.11	20.0000		97.2	63 - 127	0.0515	20	
n-Propylbenzene	18.5100	0.50	0.10	20.0000		92.6	69 - 124	0.593	20	
Naphthalene	18.0500	0.50	0.41	20.0000		90.2	60 - 126	4.23	20	
o-Xylene	18.1600	0.50	0.13	20.0000		90.8	79 - 126	1.53	20	
sec-Butylbenzene	18.7300	0.50	0.09	20.0000		93.6	69 - 124	0.107	20	
Styrene	21.7200	0.50	0.13	20.0000		109	80 - 127	1.51	20	
tert-Butylbenzene	18.2700	0.50	0.09	20.0000		91.4	71 - 124	0.655	20	
Tetrachloroethene	17.7400	0.50	0.10	20.0000		88.7	73 - 129	1.23	20	
Toluene	18.8600	0.50	0.12	20.0000		94.3	78 - 121	2.82	20	
trans-1,2-Dichloroethene	19.8600	0.50	0.09	20.0000		99.3	58 - 141	5.48	20	
Trichloroethene	17.2400	0.50	0.10	20.0000		86.2	73 - 126	1.27	20	
Trichlorofluoromethane	19.6800	0.50	0.23	20.0000		98.4	62 - 146	1.61	20	
Vinyl chloride	18.4600	0.50	0.13	20.0000		92.3	61 - 137	3.36	20	
Surrogate: 1,2-Dichloroethane-d4	*24.48*			*25.0000*		*97.9*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*24.77*			*25.0000*		*99.1*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.21*			*25.0000*		*105*	*66 - 147*			
Surrogate: Toluene-d8	*25.38*			*25.0000*		*102*	*77 - 138*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0371 - MSSEMI_W										
Blank (B0G0371-BLK1)					Prepared: 7/21/2020 Analyzed: 7/21/2020					
1,4-Dioxane	ND	2.0	0.84							
Surrogate: 1,2-Dichlorobenzene-d	*131.3*			*200.000*		*65.6*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*168.1*			*200.000*		*84.0*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*246.5*			*200.000*		*123*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*210.5*			*200.000*		*105*	*13 - 150*			
LCS (B0G0371-BS1)					Prepared: 7/21/2020 Analyzed: 7/21/2020					
1,4-Dioxane	112.210	2.0	0.84	100.000		112	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*52.55*			*100.000*		*52.6*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*61.12*			*100.000*		*61.1*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*59.24*			*100.000*		*59.2*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*95.42*			*100.000*		*95.4*	*13 - 150*			
LCS Dup (B0G0371-BSD1)					Prepared: 7/21/2020 Analyzed: 7/21/2020					
1,4-Dioxane	110.450	2.0	0.84	100.000		110	75 - 155	1.58	20	
Surrogate: 1,2-Dichlorobenzene-d	*53.89*			*100.000*		*53.9*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*65.27*			*100.000*		*65.3*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*66.51*			*100.000*		*66.5*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*98.44*			*100.000*		*98.4*	*13 - 150*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 07/23/2020

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0G0370 - MSSEMI_W										
Blank (B0G0370-BLK1)					Prepared: 7/21/2020 Analyzed: 7/21/2020					
1,4-Dioxane	ND	0.20	0.05							
Surrogate: 1,2-Dichlorobenzene-d	*0.8317*			*1.00000*		*83.2*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*1.132*			*1.00000*		*113*	*8 - 111*			S1
Surrogate: 4-Terphenyl-d14	*0.9245*			*1.00000*		*92.5*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.6531*			*1.00000*		*65.3*	*15 - 121*			
LCS (B0G0370-BS1)					Prepared: 7/21/2020 Analyzed: 7/21/2020					
1,4-Dioxane	1.33739	0.20	0.05	1.00000		134	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*0.5679*			*1.00000*		*56.8*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.8044*			*1.00000*		*80.4*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.7129*			*1.00000*		*71.3*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.4416*			*1.00000*		*44.2*	*15 - 121*			
LCS Dup (B0G0370-BSD1)					Prepared: 7/21/2020 Analyzed: 7/21/2020					
1,4-Dioxane	1.28241	0.20	0.05	1.00000		128	75 - 155	4.20	20	
Surrogate: 1,2-Dichlorobenzene-d	*0.6045*			*1.00000*		*60.5*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.8674*			*1.00000*		*86.7*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.7764*			*1.00000*		*77.6*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.4871*			*1.00000*		*48.7*	*15 - 121*			

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Ratheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	07/23/2020

Notes and Definitions

S1	Surrogate recovery was above laboratory acceptance limit. No associated target analyte was detected in the sample.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

2001715

Date: 7/16/2020
Page 1 of 1

PROJECT: Raytheon Main GETS Mid Month Sample

TASK NO.: 532.15

Project Manager: Steve Netto
QA Manager: Ross Horton
Phone: 858.455.6500
Fax: 858.455.6533

Sampled By: Ruben Sanchez

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Ice	40-ml VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	Total Suspended Solids by SM2540D	UV Absorption EPA 415.3 @254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270C SIM	0 - 10	10 - 100	100 - 1,000	>1,000		24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
01	TB-071620	7/16/2020	8:00		X	X			X	2						X									X							X			
02	CEFF	7/16/2020	9:10	X		X			X	3					1	X								X	X							X			
03	CBT	7/16/2020	9:30	X		X			X	3					1	X								X	X							X			
04	POX	7/16/2020	9:45	X		X			X	3					1	X								X	X							X			
05	INF	7/16/2020	10:15	X		X			X	3					1	X							X				X					X			
06	EW-02	7/16/2020	11:45	X		X			X	3					1	X							X			X						X			
07	MW-29	7/16/2020	12:10	X		X			X	3					1	X							X				X					X			
Total number of containers per analysis:										20					6																				

Total No. of Containers: 26

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
H+A	7-16-20 1245	H&A	7-16-20 12:45
H&A	7-16-20 1625	ATL	7-16-20 1615

- ✓ No. of containers correct
- ✓ Received in good condition
- ✓ Custody seals secure
- ✓ Conforms to COC document

24 Temperature on receipt
ice

Laboratory

Adcanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

Instructions

1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.

ADVANCED TECHNOLOGY LABORATORIES

September 14, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

Re: ATL Work Order Number : 2001860
Client Reference : Raytheon Main GETS Monthly Sample, 532.15

Enclosed are the results for sample(s) received on August 06, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	09/14/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CEFF	2001860-02	Water	8/06/20 12:20	8/06/20 17:10
CBT	2001860-03	Water	8/06/20 12:28	8/06/20 17:10
POX	2001860-04	Water	8/06/20 12:35	8/06/20 17:10
PF	2001860-05	Water	8/06/20 12:45	8/06/20 17:10
INF	2001860-06	Water	8/06/20 12:50	8/06/20 17:10
EW-02	2001860-07	Water	8/06/20 14:27	8/06/20 17:10
MW-29	2001860-08	Water	8/06/20 14:50	8/06/20 17:10

CASE NARRATIVE

Samples for Bromate by IC-MS/MS was subcontracted to Element Materials Technology with CA-ELAP Cert. 2652.

Sample TB-080620 was not was not provided for Volatile Organic Compounds by EPA 8260B.

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: CEFF

Lab ID: 2001860-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,1,1-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,1,2-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,1-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,1-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,1-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,2,3-Trichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,2-Dibromoethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,2-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,2-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,3-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,3-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
1,4-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
2,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
2-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
4-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
4-Isopropyltoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Benzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Bromobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Bromodichloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Bromoform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Bromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Carbon tetrachloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Chlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Chloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Chloroform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Chloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Dibromochloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: CEFF

Lab ID: 2001860-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Dichlorodifluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Ethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Hexachlorobutadiene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Isopropylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
m,p-Xylene	ND	1.0	1	B0H0100	08/07/2020	08/07/20 17:04	
Methylene chloride	ND	1.0	1	B0H0100	08/07/2020	08/07/20 17:04	
n-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
n-Propylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Naphthalene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
o-Xylene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
sec-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Styrene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
tert-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Tetrachloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Toluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Trichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Trichlorofluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Vinyl chloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:04	
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*		B0H0100	08/07/2020	*08/07/20 17:04*	
Surrogate: 4-Bromofluorobenzene	*90.7 %*	*71 - 127*		B0H0100	08/07/2020	*08/07/20 17:04*	
Surrogate: Dibromofluoromethane	*106 %*	*66 - 147*		B0H0100	08/07/2020	*08/07/20 17:04*	
Surrogate: Toluene-d8	*98.6 %*	*77 - 138*		B0H0100	08/07/2020	*08/07/20 17:04*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: CEFF

Lab ID: 2001860-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0H0166	08/12/2020	08/12/20 15:57	
Surrogate: 1,2-Dichlorobenzene-d4	*68.0 %*		*13 - 99*		B0H0166	08/12/2020	*08/12/20 15:57*	
Surrogate: 2-Fluorobiphenyl	*69.5 %*		*8 - 111*		B0H0166	08/12/2020	*08/12/20 15:57*	
Surrogate: 4-Terphenyl-d14	*50.3 %*		*12 - 113*		B0H0166	08/12/2020	*08/12/20 15:57*	
Surrogate: Nitrobenzene-d5	*56.1 %*		*15 - 121*		B0H0166	08/12/2020	*08/12/20 15:57*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: CBT

Lab ID: 2001860-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,1,1-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,1,2-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,1-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,1-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,1-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,2,3-Trichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,2-Dibromoethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,2-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,2-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,3-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,3-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
1,4-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
2,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
2-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
4-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
4-Isopropyltoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Benzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Bromobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Bromodichloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Bromoform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Bromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Carbon tetrachloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Chlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Chloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Chloroform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Chloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Dibromochloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: CBT

Lab ID: 2001860-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Dichlorodifluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Ethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Hexachlorobutadiene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Isopropylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
m,p-Xylene	ND	1.0	1	B0H0100	08/07/2020	08/07/20 17:25	
Methylene chloride	ND	1.0	1	B0H0100	08/07/2020	08/07/20 17:25	
n-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
n-Propylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Naphthalene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
o-Xylene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
sec-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Styrene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
tert-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Tetrachloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Toluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Trichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Trichlorofluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Vinyl chloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:25	
Surrogate: 1,2-Dichloroethane-d4	*113 %*	*59 - 158*		B0H0100	08/07/2020	*08/07/20 17:25*	
Surrogate: 4-Bromofluorobenzene	*87.6 %*	*71 - 127*		B0H0100	08/07/2020	*08/07/20 17:25*	
Surrogate: Dibromofluoromethane	*107 %*	*66 - 147*		B0H0100	08/07/2020	*08/07/20 17:25*	
Surrogate: Toluene-d8	*99.2 %*	*77 - 138*		B0H0100	08/07/2020	*08/07/20 17:25*	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: CBT

Lab ID: 2001860-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0H0166	08/12/2020	08/12/20 16:24	
Surrogate: 1,2-Dichlorobenzene-d4	*76.8 %*		*13 - 99*		B0H0166	08/12/2020	*08/12/20 16:24*	
Surrogate: 2-Fluorobiphenyl	*85.6 %*		*8 - 111*		B0H0166	08/12/2020	*08/12/20 16:24*	
Surrogate: 4-Terphenyl-d14	*63.1 %*		*12 - 113*		B0H0166	08/12/2020	*08/12/20 16:24*	
Surrogate: Nitrobenzene-d5	*64.0 %*		*15 - 121*		B0H0166	08/12/2020	*08/12/20 16:24*	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: POX

Lab ID: 2001860-04

Alkalinity, Speciated by SM 2320B

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO3)	**220**	5.0	1	B0H0108	08/07/2020	08/07/20 17:45	
Alkalinity, Carbonate (as CaCO3)	ND	5.0	1	B0H0108	08/07/2020	08/07/20 17:45	
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	1	B0H0108	08/07/2020	08/07/20 17:45	
Alkalinity, Total (as CaCO3)	**220**	5.0	1	B0H0108	08/07/2020	08/07/20 17:45	

Total Organic Carbon by SM 5310B

Analyst: SDC

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B0H0206	08/13/2020	08/13/20 14:13	

Volatile Organic Compounds by EPA 8260B

Analyst: VW

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,1,1-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,1,2-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,1-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,1-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,1-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,2,3-Trichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,2-Dibromoethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,2-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,2-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,3-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,3-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
1,4-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
2,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
2-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: POX

Lab ID: 2001860-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
4-Isopropyltoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Benzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Bromobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Bromodichloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Bromoform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Bromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Carbon tetrachloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Chlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Chloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Chloroform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Chloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Dibromochloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Dibromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Dichlorodifluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Ethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Hexachlorobutadiene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Isopropylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
m,p-Xylene	ND	1.0	1	B0H0100	08/07/2020	08/07/20 16:43	
Methylene chloride	ND	1.0	1	B0H0100	08/07/2020	08/07/20 16:43	
n-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
n-Propylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Naphthalene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
o-Xylene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
sec-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Styrene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
tert-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Tetrachloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Toluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Trichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Trichlorofluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Vinyl chloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 16:43	
Surrogate: 1,2-Dichloroethane-d4	*111 %*	*59 - 158*		B0H0100	08/07/2020	*08/07/20 16:43*	
Surrogate: 4-Bromofluorobenzene	*85.4 %*	*71 - 127*		B0H0100	08/07/2020	*08/07/20 16:43*	

Certificate of Analysis

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San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: POX

Lab ID: 2001860-04

Volatile Organic Compounds by EPA 8260B — **Analyst: VW**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Dibromofluoromethane	*102 %*		*66 - 147*		B0H0100	08/07/2020	*08/07/20 16:43*	
Surrogate: Toluene-d8	*94.7 %*		*77 - 138*		B0H0100	08/07/2020	*08/07/20 16:43*	

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique — **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0H0166	08/12/2020	08/12/20 16:51	
Surrogate: 1,2-Dichlorobenzene-d4	*76.8 %*		*13 - 99*		B0H0166	08/12/2020	*08/12/20 16:51*	
Surrogate: 2-Fluorobiphenyl	*88.5 %*		*8 - 111*		B0H0166	08/12/2020	*08/12/20 16:51*	
Surrogate: 4-Terphenyl-d14	*59.2 %*		*12 - 113*		B0H0166	08/12/2020	*08/12/20 16:51*	
Surrogate: Nitrobenzene-d5	*65.5 %*		*15 - 121*		B0H0166	08/12/2020	*08/12/20 16:51*	

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San Diego , CA 92122		Reported :	09/14/2020

Client Sample ID: PF

Lab ID: 2001860-05

UV Absorption by EPA 415.3

Analyst: SDC

Analyte	Result (1/cm)	PQL (1/cm)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
UV Absorption	ND	0.01	1	B0H0099	08/07/2020	08/07/20 12:12	

Alkalinity, Speciated by SM 2320B

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Alkalinity, Bicarbonate (as CaCO3)	**220**	5.0	1	B0H0108	08/07/2020	08/07/20 17:45	
Alkalinity, Carbonate (as CaCO3)	ND	5.0	1	B0H0108	08/07/2020	08/07/20 17:45	
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	1	B0H0108	08/07/2020	08/07/20 17:45	
Alkalinity, Total (as CaCO3)	**220**	5.0	1	B0H0108	08/07/2020	08/07/20 17:45	

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: SD

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	3.3	1	B0H0125	08/07/2020	08/10/20 11:04	

Total Organic Carbon by SM 5310B

Analyst: SDC

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	1	B0H0206	08/13/2020	08/13/20 15:40	

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San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: INF

Lab ID: 2001860-06

Bromide by Ion Chromatography EPA 300 — **Analyst: AH**

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	**0.56**	0.05	1	B0H0130	08/10/2020	08/10/20 14:55	

Volatile Organic Compounds by EPA 8260B — **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,1,1-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,1,2-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,1-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,1-Dichloroethene	**36**	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,1-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,2,3-Trichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,2-Dibromoethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,2-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,2-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,3-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,3-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
1,4-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
2,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
2-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
4-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
4-Isopropyltoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Benzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Bromobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Bromodichloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Bromoform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Bromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Carbon tetrachloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Chlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	

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San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: INF

Lab ID: 2001860-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Chloroform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Chloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Dibromochloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Dibromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Dichlorodifluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Ethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Hexachlorobutadiene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Isopropylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
m,p-Xylene	ND	1.0	1	B0H0100	08/07/2020	08/07/20 18:07	
Methylene chloride	ND	1.0	1	B0H0100	08/07/2020	08/07/20 18:07	
n-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
n-Propylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Naphthalene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
o-Xylene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
sec-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Styrene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
tert-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Tetrachloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Toluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Trichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Trichlorofluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Vinyl chloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 18:07	
Surrogate: 1,2-Dichloroethane-d4	*114 %*	*59 - 158*		B0H0100	08/07/2020	*08/07/20 18:07*	
Surrogate: 4-Bromofluorobenzene	*87.9 %*	*71 - 127*		B0H0100	08/07/2020	*08/07/20 18:07*	
Surrogate: Dibromofluoromethane	*110 %*	*66 - 147*		B0H0100	08/07/2020	*08/07/20 18:07*	
Surrogate: Toluene-d8	*97.8 %*	*77 - 138*		B0H0100	08/07/2020	*08/07/20 18:07*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: INF

Lab ID: 2001860-06

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**20**	2.0	1	B0H0167	08/12/2020	08/12/20 16:46	
Surrogate: 1,2-Dichlorobenzene-d4	*68.2 %*		*17 - 119*		B0H0167	08/12/2020	*08/12/20 16:46*	
Surrogate: 2-Fluorobiphenyl	*78.4 %*		*10 - 133*		B0H0167	08/12/2020	*08/12/20 16:46*	
Surrogate: 4-Terphenyl-d14	*83.2 %*		*5 - 139*		B0H0167	08/12/2020	*08/12/20 16:46*	
Surrogate: Nitrobenzene-d5	*74.9 %*		*13 - 150*		B0H0167	08/12/2020	*08/12/20 16:46*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: EW-02

Lab ID: 2001860-07

Bromide by Ion Chromatography EPA 300 — **Analyst: AH**

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	**0.46**	0.05	1	B0H0130	08/10/2020	08/10/20 15:07	

Volatile Organic Compounds by EPA 8260B — **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,1,1-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,1,2-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,1-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,1-Dichloroethene	**14**	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,1-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,2,3-Trichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,2-Dibromoethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,2-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,2-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,3-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,3-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
1,4-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
2,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
2-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
4-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
4-Isopropyltoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Benzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Bromobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Bromodichloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Bromoform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Bromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Carbon tetrachloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Chlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: EW-02

Lab ID: 2001860-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Chloroform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Chloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Dibromochloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Dibromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Dichlorodifluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Ethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Hexachlorobutadiene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Isopropylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
m,p-Xylene	ND	1.0	1	B0H0100	08/07/2020	08/07/20 17:46	
Methylene chloride	ND	1.0	1	B0H0100	08/07/2020	08/07/20 17:46	
n-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
n-Propylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Naphthalene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
o-Xylene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
sec-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Styrene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
tert-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Tetrachloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Toluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Trichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Trichlorofluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Vinyl chloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 17:46	
Surrogate: 1,2-Dichloroethane-d4	*115 %*	*59 - 158*		B0H0100	08/07/2020	*08/07/20 17:46*	
Surrogate: 4-Bromofluorobenzene	*92.4 %*	*71 - 127*		B0H0100	08/07/2020	*08/07/20 17:46*	
Surrogate: Dibromofluoromethane	*109 %*	*66 - 147*		B0H0100	08/07/2020	*08/07/20 17:46*	
Surrogate: Toluene-d8	*98.6 %*	*77 - 138*		B0H0100	08/07/2020	*08/07/20 17:46*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: EW-02

Lab ID: 2001860-07

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**8.4**	2.0	1	B0H0167	08/12/2020	08/12/20 17:13	
Surrogate: 1,2-Dichlorobenzene-d4	*57.4 %*		*17 - 119*		B0H0167	08/12/2020	*08/12/20 17:13*	
Surrogate: 2-Fluorobiphenyl	*65.3 %*		*10 - 133*		B0H0167	08/12/2020	*08/12/20 17:13*	
Surrogate: 4-Terphenyl-d14	*67.2 %*		*5 - 139*		B0H0167	08/12/2020	*08/12/20 17:13*	
Surrogate: Nitrobenzene-d5	*61.4 %*		*13 - 150*		B0H0167	08/12/2020	*08/12/20 17:13*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: MW-29

Lab ID: 2001860-08

Bromide by Ion Chromatography EPA 300

Analyst: AH

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	**0.91**	0.05	1	B0H0130	08/10/2020	08/10/20 15:18	

Volatile Organic Compounds by EPA 8260B

Analyst: VW

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,1,1-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,1,2-Trichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,1-Dichloroethane	**1.4**	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,1-Dichloroethene	**140**	5.0	10	B0H0100	08/07/2020	08/07/20 18:50	
1,1-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,2,3-Trichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,2-Dibromoethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,2-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,2-Dichloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,3-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,3-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
1,4-Dichlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
2,2-Dichloropropane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
2-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
4-Chlorotoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
4-Isopropyltoluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Benzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Bromobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Bromodichloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Bromoform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Bromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Carbon tetrachloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Chlorobenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: MW-29

Lab ID: 2001860-08

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloroethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Chloroform	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Chloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Dibromochloromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Dibromomethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Dichlorodifluoromethane	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Ethylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Hexachlorobutadiene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Isopropylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
m,p-Xylene	ND	1.0	1	B0H0100	08/07/2020	08/07/20 19:11	
Methylene chloride	ND	1.0	1	B0H0100	08/07/2020	08/07/20 19:11	
n-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
n-Propylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Naphthalene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
o-Xylene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
sec-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Styrene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
tert-Butylbenzene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Tetrachloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Toluene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Trichloroethene	**1.4**	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Trichlorofluoromethane	**0.63**	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Vinyl chloride	ND	0.50	1	B0H0100	08/07/2020	08/07/20 19:11	
Surrogate: 1,2-Dichloroethane-d4	*117 %*	*59 - 158*		B0H0100	08/07/2020	*08/07/20 18:50*	
Surrogate: 1,2-Dichloroethane-d4	*124 %*	*59 - 158*		B0H0100	08/07/2020	*08/07/20 19:11*	
Surrogate: 4-Bromofluorobenzene	*87.1 %*	*71 - 127*		B0H0100	08/07/2020	*08/07/20 19:11*	
Surrogate: 4-Bromofluorobenzene	*91.3 %*	*71 - 127*		B0H0100	08/07/2020	*08/07/20 18:50*	
Surrogate: Dibromofluoromethane	*110 %*	*66 - 147*		B0H0100	08/07/2020	*08/07/20 19:11*	
Surrogate: Dibromofluoromethane	*112 %*	*66 - 147*		B0H0100	08/07/2020	*08/07/20 18:50*	
Surrogate: Toluene-d8	*99.0 %*	*77 - 138*		B0H0100	08/07/2020	*08/07/20 19:11*	
Surrogate: Toluene-d8	*100 %*	*77 - 138*		B0H0100	08/07/2020	*08/07/20 18:50*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

Client Sample ID: MW-29

Lab ID: 2001860-08

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**78**	2.0	1	B0H0167	08/12/2020	08/12/20 17:40	
Surrogate: 1,2-Dichlorobenzene-d4	*64.2 %*		*17 - 119*		B0H0167	08/12/2020	*08/12/20 17:40*	
Surrogate: 2-Fluorobiphenyl	*74.2 %*		*10 - 133*		B0H0167	08/12/2020	*08/12/20 17:40*	
Surrogate: 4-Terphenyl-d14	*81.6 %*		*5 - 139*		B0H0167	08/12/2020	*08/12/20 17:40*	
Surrogate: Nitrobenzene-d5	*71.9 %*		*13 - 150*		B0H0167	08/12/2020	*08/12/20 17:40*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 09/14/2020

QUALITY CONTROL SECTION

Alkalinity, Speciated by SM 2320B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0108 - No_Prep_WC1_W										
Blank (B0H0108-BLK1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
Alkalinity, Bicarbonate (as CaCO3)	ND	5.0	3.4							
Alkalinity, Carbonate (as CaCO3)	ND	5.0	3.4							
Alkalinity, Hydroxide (as CaCO3)	ND	5.0	3.4							
Alkalinity, Total (as CaCO3)	ND	5.0	3.4							
LCS (B0H0108-BS1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
Alkalinity, Total (as CaCO3)	100.510	5.0	3.4	99.9580		101	80 - 120			
Matrix Spike (B0H0108-MS1)			**Source: 2001860-05**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
Alkalinity, Total (as CaCO3)	320.790	5.0	3.4	99.9580	216.420	104	80 - 120			
Matrix Spike Dup (B0H0108-MSD1)			**Source: 2001860-05**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
Alkalinity, Total (as CaCO3)	316.080	5.0	3.4	99.9580	216.420	99.7	80 - 120	1.48	20	

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Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0125 - No_Prep_WC1_W										
Blank (B0H0125-BLK1)					Prepared: 8/7/2020 Analyzed: 8/10/2020					
Residue, Suspended	ND	1.0	1.0							
LCS (B0H0125-BS1)					Prepared: 8/7/2020 Analyzed: 8/10/2020					
Residue, Suspended	94.0000	10	10	97.4000		96.5	80 - 120			
Duplicate (B0H0125-DUP1)			**Source: 2001842-02**		Prepared: 8/7/2020 Analyzed: 8/10/2020					
Residue, Suspended	33.0000	3.3	3.3		30.0000			9.52	10	

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Bromide by Ion Chromatography EPA 300 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0130 - No_Prep_IC1_W										
Blank (B0H0130-BLK1)					Prepared: 8/10/2020 Analyzed: 8/10/2020					
Bromide	ND	0.05	0.02							
LCS (B0H0130-BS1)					Prepared: 8/10/2020 Analyzed: 8/10/2020					
Bromide	1.02520	0.05	0.02	1.00000		103	90 - 110			
Duplicate (B0H0130-DUP1)			**Source: 2001860-07**		Prepared: 8/10/2020 Analyzed: 8/10/2020					
Bromide	0.507500	0.05	0.02		0.462000			9.39	20	
Matrix Spike (B0H0130-MS1)			**Source: 2001860-07**		Prepared: 8/10/2020 Analyzed: 8/10/2020					
Bromide	2.97650	0.05	0.02	2.50000	0.462000	101	80 - 120			
Matrix Spike Dup (B0H0130-MSD1)			**Source: 2001860-07**		Prepared: 8/10/2020 Analyzed: 8/10/2020					
Bromide	2.87890	0.05	0.02	2.50000	0.462000	96.7	80 - 120	3.33	20	

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UV Absorption by EPA 415.3 - Quality Control

Analyte	Result (1/cm)	PQL (1/cm)	MDL (1/cm)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0099 - No_Prep_II_W										
Duplicate (B0H0099-DUP1)			**Source: 2001860-05**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
UV Absorption	ND	0.01	0.01		ND				20	

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Total Organic Carbon by SM 5310B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0206 - No_Prep_II_W										
Blank (B0H0206-BLK1)					Prepared: 8/13/2020 Analyzed: 8/13/2020					
Organic Carbon, Total	ND	3.0	1.3							
LCS (B0H0206-BS1)					Prepared: 8/13/2020 Analyzed: 8/13/2020					
Organic Carbon, Total	24.8100	3.0	1.3	25.0000		99.2	80 - 120			
Duplicate (B0H0206-DUP1)			**Source: 2001860-04**		Prepared: 8/13/2020 Analyzed: 8/13/2020					
Organic Carbon, Total	ND	3.0	1.3		ND			NR	20	
Matrix Spike (B0H0206-MS1)			**Source: 2001860-04**		Prepared: 8/13/2020 Analyzed: 8/13/2020					
Organic Carbon, Total	24.0200	3.0	1.3	25.0000	ND	96.1	80 - 120			
Matrix Spike Dup (B0H0206-MSD1)			**Source: 2001860-04**		Prepared: 8/13/2020 Analyzed: 8/13/2020					
Organic Carbon, Total	54.1100	3.0	1.3	25.0000	ND	216	80 - 120	77.0	20	M2

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Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W										
Blank (B0H0100-BLK1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,1,1,2-Tetrachloroethane	ND	0.50	0.11							
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,1-Dichloropropene	ND	0.50	0.13							
1,2,3-Trichloropropane	ND	0.50	0.39							
1,2,3-Trichlorobenzene	ND	0.50	0.18							
1,2,4-Trichlorobenzene	ND	0.50	0.16							
1,2,4-Trimethylbenzene	ND	0.50	0.14							
1,2-Dibromo-3-chloropropane	ND	0.50	0.41							
1,2-Dibromoethane	ND	0.50	0.24							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3,5-Trimethylbenzene	ND	0.50	0.13							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,3-Dichloropropane	ND	0.50	0.21							
1,4-Dichlorobenzene	ND	0.50	0.17							
2,2-Dichloropropane	ND	0.50	0.38							
2-Chlorotoluene	ND	0.50	0.11							
4-Chlorotoluene	ND	0.50	0.12							
4-Isopropyltoluene	ND	0.50	0.11							
Benzene	ND	0.50	0.13							
Bromobenzene	ND	0.50	0.21							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,2-Dichloroethene	ND	0.50	0.14							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Dibromomethane	ND	0.50	0.19							
Dichlorodifluoromethane	ND	0.50	0.18							
Ethylbenzene	ND	0.50	0.13							
Hexachlorobutadiene	ND	0.50	0.15							

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
Blank (B0H0100-BLK1) - Continued					Prepared: 8/7/2020 Analyzed: 8/7/2020					
Isopropylbenzene	ND	0.50	0.10							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
n-Butylbenzene	ND	0.50	0.11							
n-Propylbenzene	ND	0.50	0.10							
Naphthalene	ND	0.50	0.41							
o-Xylene	ND	0.50	0.13							
sec-Butylbenzene	ND	0.50	0.09							
Styrene	ND	0.50	0.13							
tert-Butylbenzene	ND	0.50	0.09							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*27.99*			*25.0000*		*112*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*22.99*			*25.0000*		*92.0*	*71 - 127*			
Surrogate: Dibromofluoromethan	*27.10*			*25.0000*		*108*	*66 - 147*			
Surrogate: Toluene-d8	*24.62*			*25.0000*		*98.5*	*77 - 138*			
LCS (B0H0100-BS1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,1,1,2-Tetrachloroethane	18.9500	0.50	0.11	20.0000		94.8	71 - 133			
1,1,1-Trichloroethane	18.9600	0.50	0.21	20.0000		94.8	62 - 124			
1,1,2,2-Tetrachloroethane	21.1700	0.50	0.36	20.0000		106	50 - 131			
1,1,2-Trichloroethane	18.3500	0.50	0.25	20.0000		91.8	77 - 121			
1,1-Dichloroethane	16.5300	0.50	0.09	20.0000		82.6	52 - 130			
1,1-Dichloroethene	15.2800	0.50	0.13	20.0000		76.4	61 - 136			
1,1-Dichloropropene	17.1400	0.50	0.13	20.0000		85.7	80 - 128			
1,2,3-Trichloropropane	18.4600	0.50	0.39	20.0000		92.3	59 - 126			
1,2,3-Trichlorobenzene	18.6500	0.50	0.18	20.0000		93.2	69 - 138			
1,2,4-Trichlorobenzene	18.5200	0.50	0.16	20.0000		92.6	78 - 125			
1,2,4-Trimethylbenzene	22.0600	0.50	0.14	20.0000		110	70 - 126			
1,2-Dibromo-3-chloropropane	18.4300	0.50	0.41	20.0000		92.2	58 - 127			
1,2-Dibromoethane	18.0800	0.50	0.24	20.0000		90.4	76 - 120			
1,2-Dichlorobenzene	19.1300	0.50	0.20	20.0000		95.6	82 - 117			
1,2-Dichloroethane	18.1300	0.50	0.20	20.0000		90.6	66 - 126			
1,2-Dichloropropane	18.0800	0.50	0.15	20.0000		90.4	70 - 117			
1,3,5-Trimethylbenzene	20.8400	0.50	0.13	20.0000		104	71 - 125			
1,3-Dichlorobenzene	18.3600	0.50	0.16	20.0000		91.8	81 - 116			
1,3-Dichloropropane	18.4700	0.50	0.21	20.0000		92.4	69 - 124			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
LCS (B0H0100-BS1) - Continued					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,4-Dichlorobenzene	18.1800	0.50	0.17	20.0000		90.9	80 - 114			
2,2-Dichloropropane	20.6900	0.50	0.38	20.0000		103	58 - 132			
2-Chlorotoluene	19.8000	0.50	0.11	20.0000		99.0	71 - 119			
4-Chlorotoluene	21.2000	0.50	0.12	20.0000		106	72 - 122			
4-Isopropyltoluene	21.0100	0.50	0.11	20.0000		105	69 - 126			
Benzene	16.9200	0.50	0.13	20.0000		84.6	80 - 116			
Bromobenzene	18.6300	0.50	0.21	20.0000		93.2	77 - 118			
Bromodichloromethane	20.4700	0.50	0.14	20.0000		102	73 - 118			
Bromoform	19.4500	0.50	0.20	20.0000		97.2	65 - 133			
Bromomethane	16.5200	0.50	0.40	20.0000		82.6	7 - 205			
Carbon tetrachloride	17.7700	0.50	0.09	20.0000		88.8	63 - 133			
Chlorobenzene	17.8900	0.50	0.13	20.0000		89.4	86 - 113			
Chloroethane	12.7800	0.50	0.15	20.0000		63.9	66 - 141			L4
Chloroform	18.9000	0.50	0.11	20.0000		94.5	63 - 127			
Chloromethane	13.5400	0.50	0.12	20.0000		67.7	0 - 207			
cis-1,2-Dichloroethene	17.1400	0.50	0.14	20.0000		85.7	64 - 126			
cis-1,3-Dichloropropene	19.4900	0.50	0.13	20.0000		97.4	70 - 141			
Dibromochloromethane	19.7800	0.50	0.16	20.0000		98.9	67 - 135			
Dibromomethane	17.1600	0.50	0.19	20.0000		85.8	74 - 118			
Dichlorodifluoromethane	10.6000	0.50	0.18	20.0000		53.0	14 - 181			
Ethylbenzene	18.9500	0.50	0.13	20.0000		94.8	77 - 118			
Hexachlorobutadiene	19.7700	0.50	0.15	20.0000		98.8	66 - 125			
Isopropylbenzene	19.4000	0.50	0.10	20.0000		97.0	68 - 137			
m,p-Xylene	39.7800	1.0	0.19	40.0000		99.4	78 - 126			
Methylene chloride	18.3300	1.0	0.71	20.0000		91.6	51 - 149			
n-Butylbenzene	21.9300	0.50	0.11	20.0000		110	63 - 127			
n-Propylbenzene	20.7500	0.50	0.10	20.0000		104	69 - 124			
Naphthalene	15.8300	0.50	0.41	20.0000		79.2	60 - 126			
o-Xylene	19.8500	0.50	0.13	20.0000		99.2	79 - 126			
sec-Butylbenzene	20.6000	0.50	0.09	20.0000		103	69 - 124			
Styrene	23.5700	0.50	0.13	20.0000		118	80 - 127			
tert-Butylbenzene	18.8900	0.50	0.09	20.0000		94.4	71 - 124			
Tetrachloroethene	17.0000	0.50	0.10	20.0000		85.0	73 - 129			
Toluene	18.2900	0.50	0.12	20.0000		91.4	78 - 121			
trans-1,2-Dichloroethene	15.4100	0.50	0.09	20.0000		77.0	58 - 141			
Trichloroethene	15.4900	0.50	0.10	20.0000		77.4	73 - 126			
Trichlorofluoromethane	15.8100	0.50	0.23	20.0000		79.0	62 - 146			
Vinyl chloride	13.8500	0.50	0.13	20.0000		69.2	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*26.66*			*25.0000*		*107*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*26.43*			*25.0000*		*106*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.01*			*25.0000*		*100*	*66 - 147*			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
LCS (B0H0100-BS1) - Continued					Prepared: 8/7/2020 Analyzed: 8/7/2020					
Surrogate: Toluene-d8	*26.19*			*25.0000*		*105*	*77 - 138*			
LCS Dup (B0H0100-BSD1)					Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,1,1,2-Tetrachloroethane	19.9000	0.50	0.11	20.0000		99.5	71 - 133	4.89	20	
1,1,1-Trichloroethane	20.0000	0.50	0.21	20.0000		100	62 - 124	5.34	20	
1,1,2,2-Tetrachloroethane	22.6700	0.50	0.36	20.0000		113	50 - 131	6.84	20	
1,1,2-Trichloroethane	18.4700	0.50	0.25	20.0000		92.4	77 - 121	0.652	20	
1,1-Dichloroethane	17.1000	0.50	0.09	20.0000		85.5	52 - 130	3.39	20	
1,1-Dichloroethene	16.5800	0.50	0.13	20.0000		82.9	61 - 136	8.16	20	
1,1-Dichloropropene	19.1300	0.50	0.13	20.0000		95.6	80 - 128	11.0	20	
1,2,3-Trichloropropane	19.9800	0.50	0.39	20.0000		99.9	59 - 126	7.91	20	
1,2,3-Trichlorobenzene	18.2400	0.50	0.18	20.0000		91.2	69 - 138	2.22	20	
1,2,4-Trichlorobenzene	19.1300	0.50	0.16	20.0000		95.6	78 - 125	3.24	20	
1,2,4-Trimethylbenzene	23.4300	0.50	0.14	20.0000		117	70 - 126	6.02	20	
1,2-Dibromo-3-chloropropane	21.7600	0.50	0.41	20.0000		109	58 - 127	16.6	20	
1,2-Dibromoethane	19.1000	0.50	0.24	20.0000		95.5	76 - 120	5.49	20	
1,2-Dichlorobenzene	20.3100	0.50	0.20	20.0000		102	82 - 117	5.98	20	
1,2-Dichloroethane	19.0200	0.50	0.20	20.0000		95.1	66 - 126	4.79	20	
1,2-Dichloropropane	18.7300	0.50	0.15	20.0000		93.6	70 - 117	3.53	20	
1,3,5-Trimethylbenzene	22.9700	0.50	0.13	20.0000		115	71 - 125	9.72	20	
1,3-Dichlorobenzene	19.9200	0.50	0.16	20.0000		99.6	81 - 116	8.15	20	
1,3-Dichloropropane	19.6500	0.50	0.21	20.0000		98.2	69 - 124	6.19	20	
1,4-Dichlorobenzene	19.1300	0.50	0.17	20.0000		95.6	80 - 114	5.09	20	
2,2-Dichloropropane	22.7300	0.50	0.38	20.0000		114	58 - 132	9.40	20	
2-Chlorotoluene	21.4000	0.50	0.11	20.0000		107	71 - 119	7.77	20	
4-Chlorotoluene	23.1200	0.50	0.12	20.0000		116	72 - 122	8.66	20	
4-Isopropyltoluene	22.6200	0.50	0.11	20.0000		113	69 - 126	7.38	20	
Benzene	17.6700	0.50	0.13	20.0000		88.4	80 - 116	4.34	20	
Bromobenzene	20.5300	0.50	0.21	20.0000		103	77 - 118	9.70	20	
Bromodichloromethane	21.7500	0.50	0.14	20.0000		109	73 - 118	6.06	20	
Bromoform	21.0000	0.50	0.20	20.0000		105	65 - 133	7.66	20	
Bromomethane	14.1600	0.50	0.40	20.0000		70.8	7 - 205	15.4	20	
Carbon tetrachloride	20.3600	0.50	0.09	20.0000		102	63 - 133	13.6	20	
Chlorobenzene	18.7000	0.50	0.13	20.0000		93.5	86 - 113	4.43	20	
Chloroethane	14.4400	0.50	0.15	20.0000		72.2	66 - 141	12.2	20	
Chloroform	20.5600	0.50	0.11	20.0000		103	63 - 127	8.41	20	
Chloromethane	17.8000	0.50	0.12	20.0000		89.0	0 - 207	27.2	20	R
cis-1,2-Dichloroethene	18.7000	0.50	0.14	20.0000		93.5	64 - 126	8.71	20	
cis-1,3-Dichloropropene	19.9100	0.50	0.13	20.0000		99.6	70 - 141	2.13	20	
Dibromochloromethane	20.7100	0.50	0.16	20.0000		104	67 - 135	4.59	20	
Dibromomethane	17.6300	0.50	0.19	20.0000		88.2	74 - 118	2.70	20	
Dichlorodifluoromethane	11.7800	0.50	0.18	20.0000		58.9	14 - 181	10.5	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
LCS Dup (B0H0100-BSD1) - Continued					Prepared: 8/7/2020 Analyzed: 8/7/2020					
Ethylbenzene	20.0900	0.50	0.13	20.0000		100	77 - 118	5.84	20	
Hexachlorobutadiene	20.7600	0.50	0.15	20.0000		104	66 - 125	4.89	20	
Isopropylbenzene	21.9000	0.50	0.10	20.0000		110	68 - 137	12.1	20	
m,p-Xylene	42.6000	1.0	0.19	40.0000		106	78 - 126	6.85	20	
Methylene chloride	19.8000	1.0	0.71	20.0000		99.0	51 - 149	7.71	20	
n-Butylbenzene	22.8600	0.50	0.11	20.0000		114	63 - 127	4.15	20	
n-Propylbenzene	22.5000	0.50	0.10	20.0000		112	69 - 124	8.09	20	
Naphthalene	16.9300	0.50	0.41	20.0000		84.6	60 - 126	6.72	20	
o-Xylene	21.2300	0.50	0.13	20.0000		106	79 - 126	6.72	20	
sec-Butylbenzene	22.7200	0.50	0.09	20.0000		114	69 - 124	9.79	20	
Styrene	24.9200	0.50	0.13	20.0000		125	80 - 127	5.57	20	
tert-Butylbenzene	21.5600	0.50	0.09	20.0000		108	71 - 124	13.2	20	
Tetrachloroethene	17.8400	0.50	0.10	20.0000		89.2	73 - 129	4.82	20	
Toluene	18.7600	0.50	0.12	20.0000		93.8	78 - 121	2.54	20	
trans-1,2-Dichloroethene	16.3100	0.50	0.09	20.0000		81.6	58 - 141	5.67	20	
Trichloroethene	16.5800	0.50	0.10	20.0000		82.9	73 - 126	6.80	20	
Trichlorofluoromethane	18.6000	0.50	0.23	20.0000		93.0	62 - 146	16.2	20	
Vinyl chloride	16.0200	0.50	0.13	20.0000		80.1	61 - 137	14.5	20	
Surrogate: 1,2-Dichloroethane-d4	*26.72*			*25.0000*		*107*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.53*			*25.0000*		*102*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.50*			*25.0000*		*102*	*66 - 147*			
Surrogate: Toluene-d8	*25.70*			*25.0000*		*103*	*77 - 138*			
Matrix Spike (B0H0100-MS1)			**Source: 2001860-04**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,1,1,2-Tetrachloroethane	21.6800	0.50	0.11	20.0000	ND	108	71 - 133			
1,1,1-Trichloroethane	24.2500	0.50	0.21	20.0000	ND	121	62 - 124			
1,1,2,2-Tetrachloroethane	24.5100	0.50	0.36	20.0000	ND	123	50 - 131			
1,1,2-Trichloroethane	20.0100	0.50	0.25	20.0000	ND	100	77 - 121			
1,1-Dichloroethane	20.0500	0.50	0.09	20.0000	0.220000	99.2	52 - 130			
1,1-Dichloroethene	18.8300	0.50	0.13	20.0000	ND	94.2	61 - 136			
1,1-Dichloropropene	21.5400	0.50	0.13	20.0000	ND	108	80 - 128			
1,2,3-Trichloropropane	22.8500	0.50	0.39	20.0000	ND	114	59 - 126			
1,2,3-Trichlorobenzene	20.7500	0.50	0.18	20.0000	ND	104	69 - 138			
1,2,4-Trichlorobenzene	20.6800	0.50	0.16	20.0000	ND	103	78 - 125			
1,2,4-Trimethylbenzene	15.1100	0.50	0.14	20.0000	ND	75.6	70 - 126			
1,2-Dibromo-3-chloropropane	22.8900	0.50	0.41	20.0000	ND	114	58 - 127			
1,2-Dibromoethane	19.8000	0.50	0.24	20.0000	ND	99.0	76 - 120			
1,2-Dichlorobenzene	23.1200	0.50	0.20	20.0000	ND	116	82 - 117			
1,2-Dichloroethane	20.4300	0.50	0.20	20.0000	ND	102	66 - 126			
1,2-Dichloropropane	21.3300	0.50	0.15	20.0000	ND	107	70 - 117			
1,3,5-Trimethylbenzene	22.4800	0.50	0.13	20.0000	ND	112	71 - 125			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
Matrix Spike (B0H0100-MS1) - Continued			**Source: 2001860-04**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
1,3-Dichlorobenzene	22.3900	0.50	0.16	20.0000	ND	112	81 - 116			
1,3-Dichloropropane	21.0600	0.50	0.21	20.0000	ND	105	69 - 124			
1,4-Dichlorobenzene	21.1800	0.50	0.17	20.0000	ND	106	80 - 114			
2,2-Dichloropropane	25.6000	0.50	0.38	20.0000	ND	128	58 - 132			
2-Chlorotoluene	23.8300	0.50	0.11	20.0000	ND	119	71 - 119			
4-Chlorotoluene	25.1200	0.50	0.12	20.0000	ND	126	72 - 122			M2
4-Isopropyltoluene	23.6100	0.50	0.11	20.0000	ND	118	69 - 126			
Benzene	19.9300	0.50	0.13	20.0000	ND	99.6	80 - 116			
Bromobenzene	21.7000	0.50	0.21	20.0000	ND	108	77 - 118			
Bromodichloromethane	22.4100	0.50	0.14	20.0000	ND	112	73 - 118			
Bromoform	22.2600	0.50	0.20	20.0000	ND	111	65 - 133			
Bromomethane	17.1100	0.50	0.40	20.0000	ND	85.6	7 - 205			
Carbon tetrachloride	23.4700	0.50	0.09	20.0000	ND	117	63 - 133			
Chlorobenzene	20.7600	0.50	0.13	20.0000	ND	104	81 - 115			
Chloroethane	16.0600	0.50	0.15	20.0000	ND	80.3	66 - 141			
Chloroform	22.3200	0.50	0.11	20.0000	0.220000	110	63 - 127			
Chloromethane	19.5800	0.50	0.12	20.0000	ND	97.9	0 - 207			
cis-1,2-Dichloroethene	20.9000	0.50	0.14	20.0000	ND	104	64 - 126			
cis-1,3-Dichloropropene	22.5800	0.50	0.13	20.0000	ND	113	70 - 141			
Dibromochloromethane	22.6600	0.50	0.16	20.0000	ND	113	67 - 135			
Dibromomethane	18.9100	0.50	0.19	20.0000	ND	94.6	74 - 118			
Dichlorodifluoromethane	14.3300	0.50	0.18	20.0000	ND	71.6	14 - 181			
Ethylbenzene	22.7800	0.50	0.13	20.0000	ND	114	77 - 118			
Hexachlorobutadiene	23.8600	0.50	0.15	20.0000	ND	119	66 - 125			
Isopropylbenzene	24.8600	0.50	0.10	20.0000	ND	124	68 - 137			
m,p-Xylene	45.3800	1.0	0.19	40.0000	ND	113	78 - 126			
Methylene chloride	20.1300	1.0	0.71	20.0000	ND	101	51 - 149			
n-Butylbenzene	25.9000	0.50	0.11	20.0000	ND	130	63 - 127			M2
n-Propylbenzene	25.6400	0.50	0.10	20.0000	ND	128	69 - 124			M2
Naphthalene	13.8900	0.50	0.41	20.0000	ND	69.4	60 - 126			
o-Xylene	23.0500	0.50	0.13	20.0000	ND	115	79 - 126			
sec-Butylbenzene	26.3300	0.50	0.09	20.0000	ND	132	69 - 124			M2
Styrene	10.1400	0.50	0.13	20.0000	ND	50.7	80 - 127			M2
tert-Butylbenzene	25.5800	0.50	0.09	20.0000	ND	128	71 - 124			M2
Tetrachloroethene	20.5900	0.50	0.10	20.0000	ND	103	73 - 129			
Toluene	21.2600	0.50	0.12	20.0000	ND	106	78 - 121			
trans-1,2-Dichloroethene	18.7700	0.50	0.09	20.0000	ND	93.8	58 - 141			
Trichloroethene	19.2300	0.50	0.10	20.0000	ND	96.2	73 - 126			
Trichlorofluoromethane	21.6200	0.50	0.23	20.0000	ND	108	62 - 146			
Vinyl chloride	18.4600	0.50	0.13	20.0000	ND	92.3	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*26.74*			*25.0000*		*107*	*59 - 158*			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
Matrix Spike (B0H0100-MS1) - Continued			**Source: 2001860-04**			Prepared: 8/7/2020 Analyzed: 8/7/2020				
Surrogate: 4-Bromofluorobenzene	*25.85*			*25.0000*		*103*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.44*			*25.0000*		*102*	*66 - 147*			
Surrogate: Toluene-d8	*25.28*			*25.0000*		*101*	*77 - 138*			
Matrix Spike Dup (B0H0100-MSD1)			**Source: 2001860-04**			Prepared: 8/7/2020 Analyzed: 8/7/2020				
1,1,1,2-Tetrachloroethane	22.7400	0.50	0.11	20.0000	ND	114	71 - 133	4.77	20	
1,1,1-Trichloroethane	24.4200	0.50	0.21	20.0000	ND	122	62 - 124	0.699	20	
1,1,2,2-Tetrachloroethane	23.9200	0.50	0.36	20.0000	ND	120	50 - 131	2.44	20	
1,1,2-Trichloroethane	18.9000	0.50	0.25	20.0000	ND	94.5	77 - 121	5.71	20	
1,1-Dichloroethane	20.1900	0.50	0.09	20.0000	0.220000	99.8	52 - 130	0.696	20	
1,1-Dichloroethene	18.9800	0.50	0.13	20.0000	ND	94.9	61 - 136	0.793	20	
1,1-Dichloropropene	22.5800	0.50	0.13	20.0000	ND	113	80 - 128	4.71	20	
1,2,3-Trichloropropane	21.1200	0.50	0.39	20.0000	ND	106	59 - 126	7.87	20	
1,2,3-Trichlorobenzene	22.5000	0.50	0.18	20.0000	ND	112	69 - 138	8.09	20	
1,2,4-Trichlorobenzene	22.1100	0.50	0.16	20.0000	ND	111	78 - 125	6.68	20	
1,2,4-Trimethylbenzene	20.3600	0.50	0.14	20.0000	ND	102	70 - 126	29.6	20	R
1,2-Dibromo-3-chloropropane	21.2200	0.50	0.41	20.0000	ND	106	58 - 127	7.57	20	
1,2-Dibromoethane	20.3500	0.50	0.24	20.0000	ND	102	76 - 120	2.74	20	
1,2-Dichlorobenzene	22.6600	0.50	0.20	20.0000	ND	113	82 - 117	2.01	20	
1,2-Dichloroethane	20.2500	0.50	0.20	20.0000	ND	101	66 - 126	0.885	20	
1,2-Dichloropropane	21.4600	0.50	0.15	20.0000	ND	107	70 - 117	0.608	20	
1,3,5-Trimethylbenzene	23.4100	0.50	0.13	20.0000	ND	117	71 - 125	4.05	20	
1,3-Dichlorobenzene	21.8800	0.50	0.16	20.0000	ND	109	81 - 116	2.30	20	
1,3-Dichloropropane	20.7200	0.50	0.21	20.0000	ND	104	69 - 124	1.63	20	
1,4-Dichlorobenzene	21.4400	0.50	0.17	20.0000	ND	107	80 - 114	1.22	20	
2,2-Dichloropropane	26.7800	0.50	0.38	20.0000	ND	134	58 - 132	4.51	20	M2
2-Chlorotoluene	24.4300	0.50	0.11	20.0000	ND	122	71 - 119	2.49	20	M2
4-Chlorotoluene	24.7500	0.50	0.12	20.0000	ND	124	72 - 122	1.48	20	M2
4-Isopropyltoluene	25.2500	0.50	0.11	20.0000	ND	126	69 - 126	6.71	20	
Benzene	20.2200	0.50	0.13	20.0000	ND	101	80 - 116	1.44	20	
Bromobenzene	21.7200	0.50	0.21	20.0000	ND	109	77 - 118	0.0921	20	
Bromodichloromethane	22.8600	0.50	0.14	20.0000	ND	114	73 - 118	1.99	20	
Bromoform	21.0200	0.50	0.20	20.0000	ND	105	65 - 133	5.73	20	
Bromomethane	24.7700	0.50	0.40	20.0000	ND	124	7 - 205	36.6	20	R
Carbon tetrachloride	23.7300	0.50	0.09	20.0000	ND	119	63 - 133	1.10	20	
Chlorobenzene	21.0300	0.50	0.13	20.0000	ND	105	81 - 115	1.29	20	
Chloroethane	16.9200	0.50	0.15	20.0000	ND	84.6	66 - 141	5.22	20	
Chloroform	21.9100	0.50	0.11	20.0000	0.220000	108	63 - 127	1.85	20	
Chloromethane	16.1000	0.50	0.12	20.0000	ND	80.5	0 - 207	19.5	20	
cis-1,2-Dichloroethene	21.3200	0.50	0.14	20.0000	ND	107	64 - 126	1.99	20	
cis-1,3-Dichloropropene	22.7200	0.50	0.13	20.0000	ND	114	70 - 141	0.618	20	
Dibromochloromethane	22.5400	0.50	0.16	20.0000	ND	113	67 - 135	0.531	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0100 - MSVOA_LL_W (continued)										
Matrix Spike Dup (B0H0100-MSD1) - Continued			**Source: 2001860-04**		Prepared: 8/7/2020 Analyzed: 8/7/2020					
Dibromomethane	19.0900	0.50	0.19	20.0000	ND	95.4	74 - 118	0.947	20	
Dichlorodifluoromethane	13.5200	0.50	0.18	20.0000	ND	67.6	14 - 181	5.82	20	
Ethylbenzene	23.5700	0.50	0.13	20.0000	ND	118	77 - 118	3.41	20	
Hexachlorobutadiene	23.8400	0.50	0.15	20.0000	ND	119	66 - 125	0.0839	20	
Isopropylbenzene	25.1200	0.50	0.10	20.0000	ND	126	68 - 137	1.04	20	
m,p-Xylene	46.8600	1.0	0.19	40.0000	ND	117	78 - 126	3.21	20	
Methylene chloride	20.3800	1.0	0.71	20.0000	ND	102	51 - 149	1.23	20	
n-Butylbenzene	27.3900	0.50	0.11	20.0000	ND	137	63 - 127	5.59	20	M2
n-Propylbenzene	25.5100	0.50	0.10	20.0000	ND	128	69 - 124	0.508	20	M2
Naphthalene	16.6500	0.50	0.41	20.0000	ND	83.2	60 - 126	18.1	20	
o-Xylene	23.8400	0.50	0.13	20.0000	ND	119	79 - 126	3.37	20	
sec-Butylbenzene	26.5900	0.50	0.09	20.0000	ND	133	69 - 124	0.983	20	M2
Styrene	17.2400	0.50	0.13	20.0000	ND	86.2	80 - 127	51.9	20	R
tert-Butylbenzene	25.2800	0.50	0.09	20.0000	ND	126	71 - 124	1.18	20	M2
Tetrachloroethene	20.1500	0.50	0.10	20.0000	ND	101	73 - 129	2.16	20	
Toluene	21.8100	0.50	0.12	20.0000	ND	109	78 - 121	2.55	20	
trans-1,2-Dichloroethene	20.0300	0.50	0.09	20.0000	ND	100	58 - 141	6.49	20	
Trichloroethene	19.4100	0.50	0.10	20.0000	ND	97.0	73 - 126	0.932	20	
Trichlorofluoromethane	22.4400	0.50	0.23	20.0000	ND	112	62 - 146	3.72	20	
Vinyl chloride	19.3500	0.50	0.13	20.0000	ND	96.8	61 - 137	4.71	20	
Surrogate: 1,2-Dichloroethane-d4	*26.37*			*25.0000*		*105*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*26.03*			*25.0000*		*104*	*71 - 127*			
Surrogate: Dibromofluoromethan	*24.03*			*25.0000*		*96.1*	*66 - 147*			
Surrogate: Toluene-d8	*24.95*			*25.0000*		*99.8*	*77 - 138*			

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1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0167 - MSSEMI_W										
Blank (B0H0167-BLK1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	ND	2.0	0.84							
Surrogate: 1,2-Dichlorobenzene-d	*58.32*			*100.000*		*58.3*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*71.21*			*100.000*		*71.2*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*77.20*			*100.000*		*77.2*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*71.29*			*100.000*		*71.3*	*13 - 150*			
LCS (B0H0167-BS1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	88.9000	2.0	0.84	100.000		88.9	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*66.44*			*100.000*		*66.4*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*78.65*			*100.000*		*78.6*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*86.70*			*100.000*		*86.7*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*79.93*			*100.000*		*79.9*	*13 - 150*			
LCS Dup (B0H0167-BSD1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	83.5000	2.0	0.84	100.000		83.5	75 - 155	6.26	20	
Surrogate: 1,2-Dichlorobenzene-d	*72.21*			*100.000*		*72.2*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*82.42*			*100.000*		*82.4*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*93.13*			*100.000*		*93.1*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*83.32*			*100.000*		*83.3*	*13 - 150*			

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Monthly Sample, 5
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1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0166 - MSSEMI_W										
Blank (B0H0166-BLK1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	ND	0.20	0.05							
Surrogate: 1,2-Dichlorobenzene-d	*0.8171*			*1.00000*		*81.7*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.9374*			*1.00000*		*93.7*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.8069*			*1.00000*		*80.7*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.7998*			*1.00000*		*80.0*	*15 - 121*			
LCS (B0H0166-BS1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	1.13030	0.20	0.05	1.00000		113	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*0.5484*			*1.00000*		*54.8*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.6912*			*1.00000*		*69.1*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.6347*			*1.00000*		*63.5*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.5644*			*1.00000*		*56.4*	*15 - 121*			
LCS Dup (B0H0166-BSD1)					Prepared: 8/12/2020 Analyzed: 8/12/2020					
1,4-Dioxane	1.19281	0.20	0.05	1.00000		119	75 - 155	5.38	20	
Surrogate: 1,2-Dichlorobenzene-d	*0.5582*			*1.00000*		*55.8*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.6900*			*1.00000*		*69.0*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.6398*			*1.00000*		*64.0*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.5782*			*1.00000*		*57.8*	*15 - 121*			

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San Diego , CA 92122		Reported :	09/14/2020

Notes and Definitions

R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

2001860

Date: 8/6/2020
Page 1 of 1

PROJECT: Raytheon Main GETS Monthly Sample

TASK NO.: 532.15

Project Manager Steve Netto
QA Manager Ross Horton
Phone 858.455.6500
Fax 858.455.6533

Sampled By: Ruben Sanchez

LAB ID	SAMPLE ID	SAMPLE COLLECTION Date	Time	MATRIX: Groundwater	MATRIX: Lab prepared water	PRESERVATION: Hydrochloric Acid (HCl)	PRESERVATION: Nitric Acid (HNO_3)	PRESERVATION:	PRESERVATION: Sulfuric Acid (H_2SO_4)	PRESERVATION: Ice	CONTAINERS: 40-ml VOA	CONTAINERS: 125 mL Poly	CONTAINERS: 250 mL Poly	CONTAINERS: 250 mL Glass	CONTAINERS: 1 L Poly	CONTAINERS: 1L Amber	ANALYSIS REQUESTED: VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	Total Suspended Solids by SM2540D	UV Absorption EPA 415.3 @254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270 SIM	Expected Concentration Range (ppb) for VOAs: 0 - 10	10 - 100	100 - 1,000	>1,000		SPECIAL HANDLING: 24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
2001860-01	TB-080620	8/6/2020	8:00		X	X				X	2						X									X							X			
02	CEFF	8/6/2020	12:20	X		X				X	3					1	X								X	X							X			
03	CBT	8/6/2020	12:28	X		X				X	3					1	X								X	X							X			
04	POX	8/6/2020	12:35	X		X			X	X	5	1	1			1	X	X		X	X				X	X							X			
05	PF	8/6/2020	12:45	X					X	X	2		1	1	1					X	X	X	X										X			
06	INF	8/6/2020	12:50	X		X				X	3	2				1	X	X	X					X				X					X			
07	EW-02	8/6/2020	14:27	X		X				X	3	1				1	X		X					X			X						X			
08	MW-29	8/6/2020	14:50	X		X				X	3	1				1	X		X					X				X					X			
Total number of containers per analysis:											24	5	2	1	1	6																				Total No. of Containers: 39

Relinquished By: / Company	Date / Time	Received By: / Company	Date / Time
HHA	8-6-20 1540	HHA	8-6-2020 15:40
HHA	8-6-20 17:05	ATL	8/6/20 5:10PM

2.8 Temperature on receipt

- [x] No. of containers correct
- [x] Received in good condition
- [x] Custody seals secure
- [x] Conforms to COC document

Laboratory
Advanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

Instructions

1. Fill out form completely and sign only after verified for completeness

Complete in ballpoint pen. Draw one line through error, initial and date correction
Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
Note applicable preservatives, special instructions, and deviations from typical environmental samples.
Consult project QA documents for specific instructions.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 8/6/2020
Page 1 of 1

PROJECT: Raytheon Main GETS Lab Requested QC

TASK NO.: 532.15

Project Manager: Steve Netto
QA Manager: Ross Horton
Phone: 858.455.6500
Fax: 858.455.6533

Sampled By: Ruben Sanchez

SAMPLE COLLECTION

LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)		Sulfuric Acid (H_2SO_4)	Ice	40-ml VOA	125 mL Poly	250 mL Poly	500 Ml Poly	250 mL Glass	1L Amber	VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	Total Suspended Solids by SM2540D	UV Absorption EPA 415.3 @254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270 SIM	0 - 10	10 - 100	100 - 1,000	>1,000		24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
20018460-03	CBT-QC	8/6/2020	12:28	X						X						1									X	X						X			
04	POX-QC	8/6/2020	12:35	X		X			X	X	4					1	X				X				X	X						X			Samples are included per
06	INF-QC	8/6/2020	12:50	X						X						1								X			X				X				laboratory request for QC
07	EW-02-QC	8/6/2020	14:27	X						X						1								X			X				X				purposes. Do not include
																																			samples or results
																																			in final report.

Total number of containers per analysis:				4				4		Total No. of Containers: 8
Relinquished By: / Company:	Date / Time	Received By: / Company		Date / Time						
HHA	8-6-20 1540		HHA	8-6-2020 1540						
Relinquished By: / Company:	Date / Time	Received By: / Company		Date / Time						
HHA	8-6-20 17:05	ATL		8/6/20 5:10 PM						

Laboratory

Advanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

- ☐ No. of containers correct
- ☐ Received in good condition
- ☐ Custody seals secure
- ☐ Conforms to COC document

_____ Temperature on receipt

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

Instructions
completely and sign
allpoint pen. Draw
Indicate the
Note applicable
Consult project QA documents for specific instructions.

element

9240 Santa Fe Springs Road
Santa Fe Springs, CA
90670 USA

P: 1 562 948 2225
F: 1 562 948 5850
info.santafesprings@element.com
element.com

Laboratory Report

August 28, 2020

Advanced Technology Laboratories
PO Box 92797
Long Beach, CA 90809-2797

Attn: Tina Nguyen

Element Job No:	241156
Purchase Order:	COD - CC
Project Name:	2001860 / Groundwater
Samples Received:	2
Date Received:	08-07-2020

Analysis	Page
Bromate by SOP 5600, Rev 3	2

Michael Shelton
Technical Director

Robert Stead
Senior Chemist

This report is to be reproduced in its entirety. All documents and data will be destroyed 7 years past invoice.
All samples will be disposed of 30 days past invoice unless prior arrangements have been made.
The results given in this report apply only to the sample(s) provided and as received.

Bromate by SOP 5600, Rev 3
Ion Chromatography-Tandem Mass Spectrometry

Sample preparation: An aliquot of sample was spiked with internal standard (bromate-$^{18}O_3$), and diluted with water. The sample solutions were analyzed using IC-MS/MS.

Parts Per Billion (µg/L)

Sample ID	Result
ATL Lab#: 2001860-04 / POX	ND
ATL Lab#: 2001860-06 / INF	ND
Method Blank	ND
Detection Limit	0.5

Dates Analyzed: 08-22-2020

Quality Control Summary

Sample ID: ATL Lab#: 2001860-04 / POX

Analyte	Sample Result	Spike Conc	Spike Result	Spike % Rec	Spike Duplicate	Duplicate % Rec	RPD
Bromate	ND	5.00	5.80	116	5.51	110	5
QC Guidelines				80-120		80-120	NMT 15

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All samples will be disposed of 30 days past invoice unless prior arrangements have been made.
The results given in this report apply only to the sample(s) provided and as received.

ADVANCED TECHNOLOGY LABORATORIES

SUBCONTRACT ORDER

Work Order: 2001860

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Tina Nguyen
(Tina.Nguyen@atlglobal.com)

Sampler: Ruben Sanchez

RECEIVING LABORATORY:

Element Materials Technology
9240 Santa Fe Springs Road
Santa Fe Springs, CA 90670
Phone :(562) 948-2225
Fax: (562) 948-5850
PO#: SC14806-STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 2001860-04 ① / POX		**Water**	**08/06/20 12:35**	
Bromate_ICMS/MS_SUB	**08/21/20 17:00**	09/03/20 12:35		
[Bromate by IC-MS/MS]				
1-Poly Unpres - 125mL				
ATL Lab#: 2001860-06 ① / INF		**Water**	**08/06/20 12:50**	
Bromate_ICMS/MS_SUB	**08/21/20 17:00**	09/03/20 12:50		
[Bromate by IC-MS/MS]				
1-Poly Unpres - 125mL				

08.07.2020 ① Also was. D

241156

Approved by: [signature] 8/7/2020
ATL Project Manager — Date

[signature] 8/7/2020
Released By ATL Sample Control — Date

[signature] 8/7/20
Received By Courier — Date

[signature] 8/7/20 11:40
Released By Courier — Date

[signature] 08-07-2020 11:40 A
Received By Subcontract Laboratory — Date

Released By — Date

Received By — Date

August 27, 2020

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax:(858) 455-6533

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003

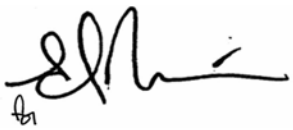
Re: ATL Work Order Number : 2001972

Client Reference : Raytheon Main GETS Mid Month Sample 532.15

Enclosed are the results for sample(s) received on August 20, 2020 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Dr. Reza Karimi
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/27/2020

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-082020	2001972-01	Water	8/20/20 8:00	8/20/20 15:49
CEFF	2001972-02	Groundwater	8/20/20 8:20	8/20/20 15:49
CBT	2001972-03	Groundwater	8/20/20 8:43	8/20/20 15:49
POX	2001972-04	Groundwater	8/20/20 8:55	8/20/20 15:49
INF	2001972-05	Groundwater	8/20/20 9:20	8/20/20 15:49
EW-02	2001972-06	Groundwater	8/20/20 10:55	8/20/20 15:49
MW-29	2001972-07	Groundwater	8/20/20 11:25	8/20/20 15:49

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: TB-082020

Lab ID: 2001972-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,1,1-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,1,2-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,1-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,1-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,1-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,2,3-Trichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,2-Dibromoethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,2-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,2-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,3-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,3-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
1,4-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
2,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
2-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
4-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
4-Isopropyltoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Benzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Bromobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Bromodichloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Bromoform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Bromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Carbon tetrachloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Chlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Chloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Chloroform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Chloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Dibromochloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: TB-082020

Lab ID: 2001972-01

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Dichlorodifluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Ethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Hexachlorobutadiene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Isopropylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
m,p-Xylene	ND	1.0	1	B0H0323	08/21/2020	08/21/20 10:50	
Methylene chloride	ND	1.0	1	B0H0323	08/21/2020	08/21/20 10:50	
n-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
n-Propylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Naphthalene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
o-Xylene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
sec-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Styrene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
tert-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Tetrachloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Toluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Trichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Trichlorofluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Vinyl chloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 10:50	
Surrogate: 1,2-Dichloroethane-d4	*103 %*	*59 - 158*		B0H0323	08/21/2020	*08/21/20 10:50*	
Surrogate: 4-Bromofluorobenzene	*82.3 %*	*71 - 127*		B0H0323	08/21/2020	*08/21/20 10:50*	
Surrogate: Dibromofluoromethane	*104 %*	*66 - 147*		B0H0323	08/21/2020	*08/21/20 10:50*	
Surrogate: Toluene-d8	*96.7 %*	*77 - 138*		B0H0323	08/21/2020	*08/21/20 10:50*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: CEFF

Lab ID: 2001972-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,1,1-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,1,2-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,1-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,1-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,1-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,2,3-Trichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,2-Dibromoethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,2-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,2-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,3-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,3-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
1,4-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
2,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
2-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
4-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
4-Isopropyltoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Benzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Bromobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Bromodichloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Bromoform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Bromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Carbon tetrachloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Chlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Chloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Chloroform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Chloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Dibromochloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: CEFF

Lab ID: 2001972-02

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Dichlorodifluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Ethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Hexachlorobutadiene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Isopropylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
m,p-Xylene	ND	1.0	1	B0H0323	08/21/2020	08/21/20 11:11	
Methylene chloride	ND	1.0	1	B0H0323	08/21/2020	08/21/20 11:11	
n-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
n-Propylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Naphthalene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
o-Xylene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
sec-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Styrene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
tert-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Tetrachloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Toluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Trichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Trichlorofluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Vinyl chloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:11	
Surrogate: 1,2-Dichloroethane-d4	*117 %*	*59 - 158*		B0H0323	08/21/2020	*08/21/20 11:11*	
Surrogate: 4-Bromofluorobenzene	*101 %*	*71 - 127*		B0H0323	08/21/2020	*08/21/20 11:11*	
Surrogate: Dibromofluoromethane	*105 %*	*66 - 147*		B0H0323	08/21/2020	*08/21/20 11:11*	
Surrogate: Toluene-d8	*92.4 %*	*77 - 138*		B0H0323	08/21/2020	*08/21/20 11:11*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: CEFF

Lab ID: 2001972-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0H0418	08/25/2020	08/25/20 16:48	
Surrogate: 1,2-Dichlorobenzene-d4	*88.0 %*		*13 - 99*		B0H0418	08/25/2020	*08/25/20 16:48*	
Surrogate: 2-Fluorobiphenyl	*84.9 %*		*8 - 111*		B0H0418	08/25/2020	*08/25/20 16:48*	
Surrogate: 4-Terphenyl-d14	*80.6 %*		*12 - 113*		B0H0418	08/25/2020	*08/25/20 16:48*	
Surrogate: Nitrobenzene-d5	*80.4 %*		*15 - 121*		B0H0418	08/25/2020	*08/25/20 16:48*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: CBT

Lab ID: 2001972-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,1,1-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,1,2-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,1-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,1-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,1-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,2,3-Trichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,2-Dibromoethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,2-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,2-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,3-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,3-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
1,4-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
2,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
2-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
4-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
4-Isopropyltoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Benzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Bromobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Bromodichloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Bromoform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Bromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Carbon tetrachloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Chlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Chloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Chloroform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Chloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Dibromochloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: CBT

Lab ID: 2001972-03

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Dichlorodifluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Ethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Hexachlorobutadiene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Isopropylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
m,p-Xylene	ND	1.0	1	B0H0323	08/21/2020	08/21/20 11:32	
Methylene chloride	ND	1.0	1	B0H0323	08/21/2020	08/21/20 11:32	
n-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
n-Propylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Naphthalene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
o-Xylene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
sec-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Styrene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
tert-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Tetrachloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Toluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Trichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Trichlorofluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Vinyl chloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:32	
Surrogate: 1,2-Dichloroethane-d4	*124 %*	*59 - 158*		B0H0323	08/21/2020	*08/21/20 11:32*	
Surrogate: 4-Bromofluorobenzene	*93.9 %*	*71 - 127*		B0H0323	08/21/2020	*08/21/20 11:32*	
Surrogate: Dibromofluoromethane	*111 %*	*66 - 147*		B0H0323	08/21/2020	*08/21/20 11:32*	
Surrogate: Toluene-d8	*97.2 %*	*77 - 138*		B0H0323	08/21/2020	*08/21/20 11:32*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: CBT

Lab ID: 2001972-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0H0418	08/25/2020	08/25/20 17:15	
Surrogate: 1,2-Dichlorobenzene-d4	*87.7 %*		*13 - 99*		B0H0418	08/25/2020	*08/25/20 17:15*	
Surrogate: 2-Fluorobiphenyl	*83.8 %*		*8 - 111*		B0H0418	08/25/2020	*08/25/20 17:15*	
Surrogate: 4-Terphenyl-d14	*92.6 %*		*12 - 113*		B0H0418	08/25/2020	*08/25/20 17:15*	
Surrogate: Nitrobenzene-d5	*79.8 %*		*15 - 121*		B0H0418	08/25/2020	*08/25/20 17:15*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: POX

Lab ID: 2001972-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,1,1-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,1,2-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,1-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,1-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,1-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,2,3-Trichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,2-Dibromoethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,2-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,2-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,3-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,3-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
1,4-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
2,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
2-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
4-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
4-Isopropyltoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Benzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Bromobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Bromodichloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Bromoform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Bromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Carbon tetrachloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Chlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Chloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Chloroform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Chloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Dibromochloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	

Certificate of Analysis

Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/27/2020

Client Sample ID: POX

Lab ID: 2001972-04

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Dichlorodifluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Ethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Hexachlorobutadiene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Isopropylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
m,p-Xylene	ND	1.0	1	B0H0323	08/21/2020	08/21/20 11:53	
Methylene chloride	ND	1.0	1	B0H0323	08/21/2020	08/21/20 11:53	
n-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
n-Propylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Naphthalene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
o-Xylene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
sec-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Styrene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
tert-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Tetrachloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Toluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Trichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Trichlorofluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Vinyl chloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 11:53	
Surrogate: 1,2-Dichloroethane-d4	*117 %*	*59 - 158*		B0H0323	08/21/2020	*08/21/20 11:53*	
Surrogate: 4-Bromofluorobenzene	*84.7 %*	*71 - 127*		B0H0323	08/21/2020	*08/21/20 11:53*	
Surrogate: Dibromofluoromethane	*108 %*	*66 - 147*		B0H0323	08/21/2020	*08/21/20 11:53*	
Surrogate: Toluene-d8	*104 %*	*77 - 138*		B0H0323	08/21/2020	*08/21/20 11:53*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: POX

Lab ID: 2001972-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		ND	0.20	1	B0H0418	08/25/2020	08/25/20 17:42	
Surrogate: 1,2-Dichlorobenzene-d4	*86.1 %*		*13 - 99*		B0H0418	08/25/2020	*08/25/20 17:42*	
Surrogate: 2-Fluorobiphenyl	*78.8 %*		*8 - 111*		B0H0418	08/25/2020	*08/25/20 17:42*	
Surrogate: 4-Terphenyl-d14	*79.3 %*		*12 - 113*		B0H0418	08/25/2020	*08/25/20 17:42*	
Surrogate: Nitrobenzene-d5	*78.5 %*		*15 - 121*		B0H0418	08/25/2020	*08/25/20 17:42*	

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: INF

Lab ID: 2001972-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,1,1-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,1,2-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,1-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,1-Dichloroethene	**38**	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,1-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,2,3-Trichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,2-Dibromoethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,2-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,2-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,3-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,3-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
1,4-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
2,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
2-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
4-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
4-Isopropyltoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Benzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Bromobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Bromodichloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Bromoform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Bromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Carbon tetrachloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Chlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Chloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Chloroform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Chloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Dibromochloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	

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Hargis & Associates, Inc.		Project Number :	Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375		Report To :	Steve Netto
San Diego , CA 92122		Reported :	08/27/2020

Client Sample ID: INF

Lab ID: 2001972-05

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Dichlorodifluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Ethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Hexachlorobutadiene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Isopropylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
m,p-Xylene	ND	1.0	1	B0H0323	08/21/2020	08/21/20 12:36	
Methylene chloride	ND	1.0	1	B0H0323	08/21/2020	08/21/20 12:36	
n-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
n-Propylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Naphthalene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
o-Xylene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
sec-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Styrene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
tert-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Tetrachloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Toluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Trichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Trichlorofluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Vinyl chloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:36	
Surrogate: 1,2-Dichloroethane-d4	*107 %*	*59 - 158*		B0H0323	08/21/2020	*08/21/20 12:36*	
Surrogate: 4-Bromofluorobenzene	*87.8 %*	*71 - 127*		B0H0323	08/21/2020	*08/21/20 12:36*	
Surrogate: Dibromofluoromethane	*105 %*	*66 - 147*		B0H0323	08/21/2020	*08/21/20 12:36*	
Surrogate: Toluene-d8	*98.2 %*	*77 - 138*		B0H0323	08/21/2020	*08/21/20 12:36*	

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Client Sample ID: INF

Lab ID: 2001972-05

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**20**	2.0	1	B0H0437	08/25/2020	08/25/20 17:12	
Surrogate: 1,2-Dichlorobenzene-d4	*81.3 %*		*17 - 119*		B0H0437	08/25/2020	*08/25/20 17:12*	
Surrogate: 2-Fluorobiphenyl	*101 %*		*10 - 133*		B0H0437	08/25/2020	*08/25/20 17:12*	
Surrogate: 4-Terphenyl-d14	*94.6 %*		*5 - 139*		B0H0437	08/25/2020	*08/25/20 17:12*	
Surrogate: Nitrobenzene-d5	*106 %*		*13 - 150*		B0H0437	08/25/2020	*08/25/20 17:12*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: EW-02

Lab ID: 2001972-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,1,1-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,1,2-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,1-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,1-Dichloroethene	**14**	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,1-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,2,3-Trichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,2-Dibromoethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,2-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,2-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,3-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,3-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
1,4-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
2,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
2-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
4-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
4-Isopropyltoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Benzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Bromobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Bromodichloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Bromoform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Bromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Carbon tetrachloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Chlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Chloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Chloroform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Chloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Dibromochloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: EW-02

Lab ID: 2001972-06

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Dichlorodifluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Ethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Hexachlorobutadiene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Isopropylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
m,p-Xylene	ND	1.0	1	B0H0323	08/21/2020	08/21/20 12:14	
Methylene chloride	ND	1.0	1	B0H0323	08/21/2020	08/21/20 12:14	
n-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
n-Propylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Naphthalene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
o-Xylene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
sec-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Styrene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
tert-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Tetrachloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Toluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Trichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Trichlorofluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Vinyl chloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 12:14	
Surrogate: 1,2-Dichloroethane-d4	*118 %*	*59 - 158*		B0H0323	08/21/2020	*08/21/20 12:14*	
Surrogate: 4-Bromofluorobenzene	*90.3 %*	*71 - 127*		B0H0323	08/21/2020	*08/21/20 12:14*	
Surrogate: Dibromofluoromethane	*114 %*	*66 - 147*		B0H0323	08/21/2020	*08/21/20 12:14*	
Surrogate: Toluene-d8	*99.0 %*	*77 - 138*		B0H0323	08/21/2020	*08/21/20 12:14*	

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9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: EW-02

Lab ID: 2001972-06

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**6.4**	2.0	1	B0H0437	08/25/2020	08/25/20 17:38	
Surrogate: 1,2-Dichlorobenzene-d4	*77.9 %*		*17 - 119*		B0H0437	08/25/2020	*08/25/20 17:38*	
Surrogate: 2-Fluorobiphenyl	*88.9 %*		*10 - 133*		B0H0437	08/25/2020	*08/25/20 17:38*	
Surrogate: 4-Terphenyl-d14	*84.3 %*		*5 - 139*		B0H0437	08/25/2020	*08/25/20 17:38*	
Surrogate: Nitrobenzene-d5	*93.1 %*		*13 - 150*		B0H0437	08/25/2020	*08/25/20 17:38*	

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Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
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San Diego , CA 92122	Reported : 08/27/2020

Client Sample ID: MW-29

Lab ID: 2001972-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,1,1-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,1,2,2-Tetrachloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,1,2-Trichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,1-Dichloroethane	**1.3**	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,1-Dichloroethene	**130**	5.0	10	B0H0323	08/21/2020	08/21/20 13:18	
1,1-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,2,3-Trichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,2,3-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,2,4-Trichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,2,4-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,2-Dibromo-3-chloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,2-Dibromoethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,2-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,2-Dichloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,3,5-Trimethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,3-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,3-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
1,4-Dichlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
2,2-Dichloropropane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
2-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
4-Chlorotoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
4-Isopropyltoluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Benzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Bromobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Bromodichloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Bromoform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Bromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Carbon tetrachloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Chlorobenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Chloroethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Chloroform	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Chloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
cis-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
cis-1,3-Dichloropropene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Dibromochloromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	

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Client Sample ID: MW-29

Lab ID: 2001972-07

Volatile Organic Compounds by EPA 8260B **Analyst: VW**

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Dichlorodifluoromethane	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Ethylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Hexachlorobutadiene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Isopropylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
m,p-Xylene	ND	1.0	1	B0H0323	08/21/2020	08/21/20 13:39	
Methylene chloride	ND	1.0	1	B0H0323	08/21/2020	08/21/20 13:39	
n-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
n-Propylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Naphthalene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
o-Xylene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
sec-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Styrene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
tert-Butylbenzene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Tetrachloroethene	**0.58**	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Toluene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
trans-1,2-Dichloroethene	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Trichloroethene	**1.5**	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Trichlorofluoromethane	**0.57**	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Vinyl chloride	ND	0.50	1	B0H0323	08/21/2020	08/21/20 13:39	
Surrogate: 1,2-Dichloroethane-d4	*116 %*	*59 - 158*		B0H0323	08/21/2020	*08/21/20 13:18*	
Surrogate: 1,2-Dichloroethane-d4	*119 %*	*59 - 158*		B0H0323	08/21/2020	*08/21/20 13:39*	
Surrogate: 4-Bromofluorobenzene	*86.9 %*	*71 - 127*		B0H0323	08/21/2020	*08/21/20 13:18*	
Surrogate: 4-Bromofluorobenzene	*93.7 %*	*71 - 127*		B0H0323	08/21/2020	*08/21/20 13:39*	
Surrogate: Dibromofluoromethane	*112 %*	*66 - 147*		B0H0323	08/21/2020	*08/21/20 13:39*	
Surrogate: Dibromofluoromethane	*113 %*	*66 - 147*		B0H0323	08/21/2020	*08/21/20 13:18*	
Surrogate: Toluene-d8	*99.0 %*	*77 - 138*		B0H0323	08/21/2020	*08/21/20 13:18*	
Surrogate: Toluene-d8	*99.8 %*	*77 - 138*		B0H0323	08/21/2020	*08/21/20 13:39*	

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Client Sample ID: MW-29

Lab ID: 2001972-07

1,4-Dioxane by EPA 8270: Isotope Dilution Technique **Analyst: SP**

Analyte		Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane		**75**	2.0	1	B0H0437	08/25/2020	08/25/20 18:05	
Surrogate: 1,2-Dichlorobenzene-d4	*82.6 %*		*17 - 119*		B0H0437	08/25/2020	*08/25/20 18:05*	
Surrogate: 2-Fluorobiphenyl	*99.3 %*		*10 - 133*		B0H0437	08/25/2020	*08/25/20 18:05*	
Surrogate: 4-Terphenyl-d14	*97.0 %*		*5 - 139*		B0H0437	08/25/2020	*08/25/20 18:05*	
Surrogate: Nitrobenzene-d5	*98.9 %*		*13 - 150*		B0H0437	08/25/2020	*08/25/20 18:05*	

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QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0323 - MSVOA_LL_W										
Blank (B0H0323-BLK1)					Prepared: 8/21/2020 Analyzed: 8/21/2020					
1,1,1,2-Tetrachloroethane	ND	0.50	0.11							
1,1,1-Trichloroethane	ND	0.50	0.21							
1,1,2,2-Tetrachloroethane	ND	0.50	0.36							
1,1,2-Trichloroethane	ND	0.50	0.25							
1,1-Dichloroethane	ND	0.50	0.09							
1,1-Dichloroethene	ND	0.50	0.13							
1,1-Dichloropropene	ND	0.50	0.13							
1,2,3-Trichloropropane	ND	0.50	0.39							
1,2,3-Trichlorobenzene	ND	0.50	0.18							
1,2,4-Trichlorobenzene	ND	0.50	0.16							
1,2,4-Trimethylbenzene	ND	0.50	0.14							
1,2-Dibromo-3-chloropropane	ND	0.50	0.41							
1,2-Dibromoethane	ND	0.50	0.24							
1,2-Dichlorobenzene	ND	0.50	0.20							
1,2-Dichloroethane	ND	0.50	0.20							
1,2-Dichloropropane	ND	0.50	0.15							
1,3,5-Trimethylbenzene	ND	0.50	0.13							
1,3-Dichlorobenzene	ND	0.50	0.16							
1,3-Dichloropropane	ND	0.50	0.21							
1,4-Dichlorobenzene	ND	0.50	0.17							
2,2-Dichloropropane	ND	0.50	0.38							
2-Chlorotoluene	ND	0.50	0.11							
4-Chlorotoluene	ND	0.50	0.12							
4-Isopropyltoluene	ND	0.50	0.11							
Benzene	ND	0.50	0.13							
Bromobenzene	ND	0.50	0.21							
Bromodichloromethane	ND	0.50	0.14							
Bromoform	ND	0.50	0.20							
Bromomethane	ND	0.50	0.40							
Carbon tetrachloride	ND	0.50	0.09							
Chlorobenzene	ND	0.50	0.13							
Chloroethane	ND	0.50	0.15							
Chloroform	ND	0.50	0.11							
Chloromethane	ND	0.50	0.12							
cis-1,2-Dichloroethene	ND	0.50	0.14							
cis-1,3-Dichloropropene	ND	0.50	0.13							
Dibromochloromethane	ND	0.50	0.16							
Dibromomethane	ND	0.50	0.19							
Dichlorodifluoromethane	ND	0.50	0.18							

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0323 - MSVOA_LL_W (continued)										
Blank (B0H0323-BLK1) - Continued					Prepared: 8/21/2020 Analyzed: 8/21/2020					
Ethylbenzene	ND	0.50	0.13							
Hexachlorobutadiene	ND	0.50	0.15							
Isopropylbenzene	ND	0.50	0.10							
m,p-Xylene	ND	1.0	0.19							
Methylene chloride	ND	1.0	0.71							
n-Butylbenzene	ND	0.50	0.11							
n-Propylbenzene	ND	0.50	0.10							
Naphthalene	ND	0.50	0.41							
o-Xylene	ND	0.50	0.13							
sec-Butylbenzene	ND	0.50	0.09							
Styrene	ND	0.50	0.13							
tert-Butylbenzene	ND	0.50	0.09							
Tetrachloroethene	ND	0.50	0.10							
Toluene	ND	0.50	0.12							
trans-1,2-Dichloroethene	ND	0.50	0.09							
Trichloroethene	ND	0.50	0.10							
Trichlorofluoromethane	ND	0.50	0.23							
Vinyl chloride	ND	0.50	0.13							
Surrogate: 1,2-Dichloroethane-d4	*27.27*			*25.0000*		*109*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*23.02*			*25.0000*		*92.1*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.67*			*25.0000*		*107*	*66 - 147*			
Surrogate: Toluene-d8	*22.47*			*25.0000*		*89.9*	*77 - 138*			
LCS (B0H0323-BS1)					Prepared: 8/21/2020 Analyzed: 8/21/2020					
1,1,1,2-Tetrachloroethane	18.9500	0.50	0.11	20.0000		94.8	71 - 133			
1,1,1-Trichloroethane	20.9900	0.50	0.21	20.0000		105	62 - 124			
1,1,2,2-Tetrachloroethane	19.7800	0.50	0.36	20.0000		98.9	50 - 131			
1,1,2-Trichloroethane	17.5400	0.50	0.25	20.0000		87.7	77 - 121			
1,1-Dichloroethane	17.2800	0.50	0.09	20.0000		86.4	52 - 130			
1,1-Dichloroethene	17.4400	0.50	0.13	20.0000		87.2	61 - 136			
1,1-Dichloropropene	19.2200	0.50	0.13	20.0000		96.1	80 - 128			
1,2,3-Trichloropropane	18.1000	0.50	0.39	20.0000		90.5	59 - 126			
1,2,3-Trichlorobenzene	16.4200	0.50	0.18	20.0000		82.1	69 - 138			
1,2,4-Trichlorobenzene	17.5600	0.50	0.16	20.0000		87.8	78 - 125			
1,2,4-Trimethylbenzene	21.3300	0.50	0.14	20.0000		107	70 - 126			
1,2-Dibromo-3-chloropropane	19.0300	0.50	0.41	20.0000		95.2	58 - 127			
1,2-Dibromoethane	18.7500	0.50	0.24	20.0000		93.8	76 - 120			
1,2-Dichlorobenzene	19.4900	0.50	0.20	20.0000		97.4	82 - 117			
1,2-Dichloroethane	19.4500	0.50	0.20	20.0000		97.2	66 - 126			
1,2-Dichloropropane	17.6700	0.50	0.15	20.0000		88.4	70 - 117			
1,3,5-Trimethylbenzene	20.6200	0.50	0.13	20.0000		103	71 - 125			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0323 - MSVOA_LL_W (continued)										
LCS (B0H0323-BS1) - Continued					Prepared: 8/21/2020 Analyzed: 8/21/2020					
1,3-Dichlorobenzene	17.6600	0.50	0.16	20.0000		88.3	81 - 116			
1,3-Dichloropropane	18.4200	0.50	0.21	20.0000		92.1	69 - 124			
1,4-Dichlorobenzene	17.5900	0.50	0.17	20.0000		88.0	80 - 114			
2,2-Dichloropropane	23.6200	0.50	0.38	20.0000		118	58 - 132			
2-Chlorotoluene	19.4800	0.50	0.11	20.0000		97.4	71 - 119			
4-Chlorotoluene	20.8300	0.50	0.12	20.0000		104	72 - 122			
4-Isopropyltoluene	20.4200	0.50	0.11	20.0000		102	69 - 126			
Benzene	17.6000	0.50	0.13	20.0000		88.0	80 - 116			
Bromobenzene	18.2800	0.50	0.21	20.0000		91.4	77 - 118			
Bromodichloromethane	21.1400	0.50	0.14	20.0000		106	73 - 118			
Bromoform	19.3400	0.50	0.20	20.0000		96.7	65 - 133			
Bromomethane	25.9000	0.50	0.40	20.0000		130	7 - 205			
Carbon tetrachloride	21.9700	0.50	0.09	20.0000		110	63 - 133			
Chlorobenzene	18.2900	0.50	0.13	20.0000		91.4	86 - 113			
Chloroethane	18.6600	0.50	0.15	20.0000		93.3	66 - 141			
Chloroform	19.5500	0.50	0.11	20.0000		97.8	63 - 127			
Chloromethane	17.3600	0.50	0.12	20.0000		86.8	0 - 207			
cis-1,2-Dichloroethene	18.1300	0.50	0.14	20.0000		90.6	64 - 126			
cis-1,3-Dichloropropene	18.9100	0.50	0.13	20.0000		94.6	70 - 141			
Dibromochloromethane	19.9200	0.50	0.16	20.0000		99.6	67 - 135			
Dibromomethane	18.9800	0.50	0.19	20.0000		94.9	74 - 118			
Dichlorodifluoromethane	17.0400	0.50	0.18	20.0000		85.2	14 - 181			
Ethylbenzene	19.3200	0.50	0.13	20.0000		96.6	77 - 118			
Hexachlorobutadiene	18.7100	0.50	0.15	20.0000		93.6	66 - 125			
Isopropylbenzene	19.6800	0.50	0.10	20.0000		98.4	68 - 137			
m,p-Xylene	41.2200	1.0	0.19	40.0000		103	78 - 126			
Methylene chloride	20.7900	1.0	0.71	20.0000		104	51 - 149			
n-Butylbenzene	20.7500	0.50	0.11	20.0000		104	63 - 127			
n-Propylbenzene	20.2900	0.50	0.10	20.0000		101	69 - 124			
Naphthalene	14.1400	0.50	0.41	20.0000		70.7	60 - 126			
o-Xylene	20.2300	0.50	0.13	20.0000		101	79 - 126			
sec-Butylbenzene	20.2200	0.50	0.09	20.0000		101	69 - 124			
Styrene	23.2000	0.50	0.13	20.0000		116	80 - 127			
tert-Butylbenzene	19.4100	0.50	0.09	20.0000		97.0	71 - 124			
Tetrachloroethene	17.9100	0.50	0.10	20.0000		89.6	73 - 129			
Toluene	18.9000	0.50	0.12	20.0000		94.5	78 - 121			
trans-1,2-Dichloroethene	17.7700	0.50	0.09	20.0000		88.8	58 - 141			
Trichloroethene	17.2700	0.50	0.10	20.0000		86.4	73 - 126			
Trichlorofluoromethane	22.3800	0.50	0.23	20.0000		112	62 - 146			
Vinyl chloride	20.0200	0.50	0.13	20.0000		100	61 - 137			
Surrogate: 1,2-Dichloroethane-d4	*27.38*			*25.0000*		*110*	*59 - 158*			

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)		Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0323 - MSVOA_LL_W (continued)										
LCS (B0H0323-BS1) - Continued					Prepared: 8/21/2020 Analyzed: 8/21/2020					
Surrogate: 4-Bromofluorobenzene	*25.89*			*25.0000*		*104*	*71 - 127*			
Surrogate: Dibromofluoromethan	*25.82*			*25.0000*		*103*	*66 - 147*			
Surrogate: Toluene-d8	*26.00*			*25.0000*		*104*	*77 - 138*			
LCS Dup (B0H0323-BSD1)					Prepared: 8/21/2020 Analyzed: 8/21/2020					
1,1,1,2-Tetrachloroethane	20.1100	0.50	0.11	20.0000		101	71 - 133	5.94	20	
1,1,1-Trichloroethane	21.1000	0.50	0.21	20.0000		106	62 - 124	0.523	20	
1,1,2,2-Tetrachloroethane	18.3400	0.50	0.36	20.0000		91.7	50 - 131	7.56	20	
1,1,2-Trichloroethane	16.7300	0.50	0.25	20.0000		83.6	77 - 121	4.73	20	
1,1-Dichloroethane	17.2800	0.50	0.09	20.0000		86.4	52 - 130	0.00	20	
1,1-Dichloroethene	16.4000	0.50	0.13	20.0000		82.0	61 - 136	6.15	20	
1,1-Dichloropropene	18.5700	0.50	0.13	20.0000		92.8	80 - 128	3.44	20	
1,2,3-Trichloropropane	17.1700	0.50	0.39	20.0000		85.8	59 - 126	5.27	20	
1,2,3-Trichlorobenzene	15.8300	0.50	0.18	20.0000		79.2	69 - 138	3.66	20	
1,2,4-Trichlorobenzene	15.5200	0.50	0.16	20.0000		77.6	78 - 125	12.3	20	L4
1,2,4-Trimethylbenzene	19.5000	0.50	0.14	20.0000		97.5	70 - 126	8.96	20	
1,2-Dibromo-3-chloropropane	18.2600	0.50	0.41	20.0000		91.3	58 - 127	4.13	20	
1,2-Dibromoethane	19.9000	0.50	0.24	20.0000		99.5	76 - 120	5.95	20	
1,2-Dichlorobenzene	19.0900	0.50	0.20	20.0000		95.4	82 - 117	2.07	20	
1,2-Dichloroethane	19.5700	0.50	0.20	20.0000		97.8	66 - 126	0.615	20	
1,2-Dichloropropane	17.0500	0.50	0.15	20.0000		85.2	70 - 117	3.57	20	
1,3,5-Trimethylbenzene	18.0500	0.50	0.13	20.0000		90.2	71 - 125	13.3	20	
1,3-Dichlorobenzene	18.3100	0.50	0.16	20.0000		91.6	81 - 116	3.61	20	
1,3-Dichloropropane	16.8600	0.50	0.21	20.0000		84.3	69 - 124	8.84	20	
1,4-Dichlorobenzene	18.1300	0.50	0.17	20.0000		90.6	80 - 114	3.02	20	
2,2-Dichloropropane	22.7200	0.50	0.38	20.0000		114	58 - 132	3.88	20	
2-Chlorotoluene	17.6800	0.50	0.11	20.0000		88.4	71 - 119	9.69	20	
4-Chlorotoluene	18.5400	0.50	0.12	20.0000		92.7	72 - 122	11.6	20	
4-Isopropyltoluene	19.1300	0.50	0.11	20.0000		95.6	69 - 126	6.52	20	
Benzene	17.7900	0.50	0.13	20.0000		89.0	80 - 116	1.07	20	
Bromobenzene	17.7300	0.50	0.21	20.0000		88.6	77 - 118	3.05	20	
Bromodichloromethane	20.6400	0.50	0.14	20.0000		103	73 - 118	2.39	20	
Bromoform	19.7500	0.50	0.20	20.0000		98.8	65 - 133	2.10	20	
Bromomethane	25.9000	0.50	0.40	20.0000		130	7 - 205	0.00	20	
Carbon tetrachloride	20.4700	0.50	0.09	20.0000		102	63 - 133	7.07	20	
Chlorobenzene	17.9200	0.50	0.13	20.0000		89.6	86 - 113	2.04	20	
Chloroethane	18.8800	0.50	0.15	20.0000		94.4	66 - 141	1.17	20	
Chloroform	20.1400	0.50	0.11	20.0000		101	63 - 127	2.97	20	
Chloromethane	15.6800	0.50	0.12	20.0000		78.4	0 - 207	10.2	20	
cis-1,2-Dichloroethene	19.4700	0.50	0.14	20.0000		97.4	64 - 126	7.13	20	
cis-1,3-Dichloropropene	19.5000	0.50	0.13	20.0000		97.5	70 - 141	3.07	20	
Dibromochloromethane	20.6500	0.50	0.16	20.0000		103	67 - 135	3.60	20	

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0323 - MSVOA_LL_W (continued)										
LCS Dup (B0H0323-BSD1) - Continued					Prepared: 8/21/2020 Analyzed: 8/21/2020					
Dibromomethane	17.9100	0.50	0.19	20.0000		89.6	74 - 118	5.80	20	
Dichlorodifluoromethane	14.6400	0.50	0.18	20.0000		73.2	14 - 181	15.2	20	
Ethylbenzene	18.7100	0.50	0.13	20.0000		93.6	77 - 118	3.21	20	
Hexachlorobutadiene	16.9400	0.50	0.15	20.0000		84.7	66 - 125	9.93	20	
Isopropylbenzene	17.4600	0.50	0.10	20.0000		87.3	68 - 137	12.0	20	
m,p-Xylene	39.1200	1.0	0.19	40.0000		97.8	78 - 126	5.23	20	
Methylene chloride	20.6900	1.0	0.71	20.0000		103	51 - 149	0.482	20	
n-Butylbenzene	18.0900	0.50	0.11	20.0000		90.4	63 - 127	13.7	20	
n-Propylbenzene	17.7900	0.50	0.10	20.0000		89.0	69 - 124	13.1	20	
Naphthalene	13.7500	0.50	0.41	20.0000		68.8	60 - 126	2.80	20	
o-Xylene	20.4700	0.50	0.13	20.0000		102	79 - 126	1.18	20	
sec-Butylbenzene	18.7100	0.50	0.09	20.0000		93.6	69 - 124	7.76	20	
Styrene	23.3500	0.50	0.13	20.0000		117	80 - 127	0.644	20	
tert-Butylbenzene	17.5400	0.50	0.09	20.0000		87.7	71 - 124	10.1	20	
Tetrachloroethene	15.9100	0.50	0.10	20.0000		79.6	73 - 129	11.8	20	
Toluene	18.1700	0.50	0.12	20.0000		90.8	78 - 121	3.94	20	
trans-1,2-Dichloroethene	17.1900	0.50	0.09	20.0000		86.0	58 - 141	3.32	20	
Trichloroethene	16.4600	0.50	0.10	20.0000		82.3	73 - 126	4.80	20	
Trichlorofluoromethane	20.1800	0.50	0.23	20.0000		101	62 - 146	10.3	20	
Vinyl chloride	19.4900	0.50	0.13	20.0000		97.4	61 - 137	2.68	20	
Surrogate: 1,2-Dichloroethane-d4	*26.90*			*25.0000*		*108*	*59 - 158*			
Surrogate: 4-Bromofluorobenzene	*25.19*			*25.0000*		*101*	*71 - 127*			
Surrogate: Dibromofluoromethan	*26.69*			*25.0000*		*107*	*66 - 147*			
Surrogate: Toluene-d8	*25.05*			*25.0000*		*100*	*77 - 138*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0437 - MSSEMI_W										
Blank (B0H0437-BLK1)					Prepared: 8/25/2020 Analyzed: 8/25/2020					
1,4-Dioxane	ND	2.0	0.84							
Surrogate: 1,2-Dichlorobenzene-d	*65.68*			*100.000*		*65.7*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*83.01*			*100.000*		*83.0*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*80.88*			*100.000*		*80.9*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*84.64*			*100.000*		*84.6*	*13 - 150*			
LCS (B0H0437-BS1)					Prepared: 8/25/2020 Analyzed: 8/25/2020					
1,4-Dioxane	93.2000	2.0	0.84	100.000		93.2	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*70.02*			*100.000*		*70.0*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*89.14*			*100.000*		*89.1*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*79.10*			*100.000*		*79.1*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*91.34*			*100.000*		*91.3*	*13 - 150*			
LCS Dup (B0H0437-BSD1)					Prepared: 8/25/2020 Analyzed: 8/25/2020					
1,4-Dioxane	90.0800	2.0	0.84	100.000		90.1	75 - 155	3.40	20	
Surrogate: 1,2-Dichlorobenzene-d	*73.10*			*100.000*		*73.1*	*17 - 119*			
Surrogate: 2-Fluorobiphenyl	*90.68*			*100.000*		*90.7*	*10 - 133*			
Surrogate: 4-Terphenyl-d14	*78.07*			*100.000*		*78.1*	*5 - 139*			
Surrogate: Nitrobenzene-d5	*90.31*			*100.000*		*90.3*	*13 - 150*			

Certificate of Analysis

Hargis & Associates, Inc.	Project Number : Raytheon Main GETS Mid Month Sample
9171 Towne Centre Drive, Suite 375	Report To : Steve Netto
San Diego , CA 92122	Reported : 08/27/2020

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B0H0418 - MSSEMI_W										
Blank (B0H0418-BLK1)						Prepared: 8/25/2020 Analyzed: 8/25/2020				
1,4-Dioxane	ND	0.20	0.05							
Surrogate: 1,2-Dichlorobenzene-d	*0.9268*			*1.00000*		*92.7*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.8772*			*1.00000*		*87.7*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.9359*			*1.00000*		*93.6*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.8424*			*1.00000*		*84.2*	*15 - 121*			
LCS (B0H0418-BS1)						Prepared: 8/25/2020 Analyzed: 8/25/2020				
1,4-Dioxane	1.27226	0.20	0.05	1.00000		127	75 - 155			
Surrogate: 1,2-Dichlorobenzene-d	*0.5240*			*1.00000*		*52.4*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.5006*			*1.00000*		*50.1*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.5682*			*1.00000*		*56.8*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.3885*			*1.00000*		*38.8*	*15 - 121*			
LCS Dup (B0H0418-BSD1)						Prepared: 8/25/2020 Analyzed: 8/25/2020				
1,4-Dioxane	1.28562	0.20	0.05	1.00000		129	75 - 155	1.04	20	
Surrogate: 1,2-Dichlorobenzene-d	*0.5269*			*1.00000*		*52.7*	*13 - 99*			
Surrogate: 2-Fluorobiphenyl	*0.4938*			*1.00000*		*49.4*	*8 - 111*			
Surrogate: 4-Terphenyl-d14	*0.5755*			*1.00000*		*57.5*	*12 - 113*			
Surrogate: Nitrobenzene-d5	*0.3890*			*1.00000*		*38.9*	*15 - 121*			

Certificate of Analysis

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San Diego , CA 92122		Reported :	08/27/2020

Notes and Definitions

L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)

Notes:
(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
(3) Results are wet unless otherwise specified.

HARGIS+ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

Date: 8/20/2020
Page 1 of 1

PROJECT: Raytheon Main GETS Mid Month Sample

TASK NO.: 532.15

Project Manager Steve Netto
QA Manager Ross Horton
Phone 858.455.6500
Fax 858.455.6533

Sampled By: Ruben Sanchez

LAB ID	SAMPLE ID	Date	Time	Groundwater	Lab prepared water	Hydrochloric Acid (HCl)	Nitric Acid (HNO_3)	Sulfuric Acid (H_2SO_4)	Ice	40-ml VOA	125 mL Poly	250 mL Poly	250 mL Glass	1 L Poly	1L Amber	VOCs by EPA 8260B	Bromate by EPA 317	Bromide by EPA 300	Alkalinity by SM2320B	Total Organic Carbon by SM5310B	Total Suspended Solids by SM2540D	UV Absorption EPA 415.3 @254 nm	1,4-Dioxane by EPA 8270C MOD	1,4-Dioxane by EPA 8270C SIM	0 - 10	10 - 100	100 - 1,000	>1,000		24 hr TAT	48 Hour TAT	5 Day TAT	Level IV Data Validation Requested	MS/MSD Requested	REMARKS
460972-01	TB-082020	8/20/2020	8:00		X	X			X	2						X									X							X			
02	CEFF	8/20/2020	8:20	X		X			X	3					1	X								X	X							X			
03	CBT	8/20/2020	8:43	X		X			X	3					1	X								X	X							X			
04	POX	8/20/2020	8:55	X		X			X	3					1	X								X	X							X			
05	INF	8/20/2020	9:20	X		X			X	3					1	X							X				X					X			
06	EW-02	8/20/2020	10:55	X		X			X	3					1	X							X			X						X			
07	MW-29	8/20/2020	11:25	X		X			X	3					1	X							X				X					X			
Total number of containers per analysis:										20					6																				Total No. of Containers: 26

Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
HHA	08-20-20 1210	HHA	08-20-2020 1210
Relinquished By: / Company:	Date / Time	Received By: / Company	Date / Time
HHA	8-20-2020 15:49	HHA	8/20/2020 15:49

- ✓ No. of containers correct
- ✓ Received in good condition
- Custody seals secure
- ✓ Conforms to COC document

3.2C Temperature on receipt

Laboratory
Adcanced Technology Laboratories
Attn: Rachelle Arada
3275 Walnut Ave
Signal Hill, CA 90755
(562) 989-4045

Send Results to:
Steve Netto & Ross Horton
9171 Towne Centre Drive
Suite 375
San Diego, CA 92122
Ph: 858.455.6500
snetto@hargis.com
rhorton@hargis.com

Instructions
1. Fill out form completely and sign only after verified for completeness
2. Complete in ballpoint pen. Draw one line through error, initial and date correction
3. Indicate the number of sample containers in analytical request space; indicate choice with ✓or ×
4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.
5. Consult project QA documents for specific instructions.