DEPARTMENT OF THE NAVY
COMMANDER
NAVY REGION HAWAII
850 TICONDEROGA ST STE 110
JBPHH, HAWAII 96860-5101

NOV - 5 2018

5090
Ser N45/0650
November 1, 2018

CERTIFIED NO: 7016 0910 0001 0891 9783

Ms. Joanna Seto, Chief
Hawaii State Department of Health
Environmental Management Division
Safe Drinking Water Branch
2385 Waimano Home Road
Uluakupu Building 4
Pearl City, HI 96782

Dear Ms. Seto:

SUBJECT: DRINKING WATER MONITORING RESULTS FOR RED HILL, JOINT BASE PEARL HARBOR-HICKAM WATER SYSTEM (PWS NO. 360)

Results for drinking water samples taken at the Red Hill Shaft as required by the Transition Plan for Tank 5 Red Hill Release are enclosed. A summary of the laboratory results that are enclosed is provided in the table below.

Lab Report Number	Sample Location(s)	Sample Date	Laboratory Methods
430395	360-011, TAP OUTSIDE CL2 BLDG	9/19/18	200.8, 524.2, 525.2
430396	360-011, TAP OUTSIDE CL2 BLDG	9/18/18	8015B

No contaminants were detected. Should you have any questions regarding this matter, please contact Mr. Brian Yamada at (808) 471-4674.

Sincerely,

AARON Y. POENTIS
Director
Regional Environmental Department
By direction of the
Commander

Enclosure: 1. NAVFAC Hawaii Laboratory Lab Numbers 18-08707 and 18-08708 (31 pages)

5090
Ser N45/0650
November 1, 2018

Copy to:

Department of Health, Solid and Hazardous Waste Branch, Underground Storage Tank Section (Hard copy w/ enclosure)

Mr. John Floyd, NAVSUP Fleet Logistics Center Pearl Harbor Deputy Director, Fuel and Facility Management (CD enclosures)

Mr. Ed Gunthrie, DLA Energy Pacific (CD enclosures)

MEMORANDUM

25 Oct 18

Packet No: 18-087071025

From: NAVFAC HAWAII, Environmental Services Laboratory, PRP411

To: Kyle Teraoka NAVFACHI OPBP6

Copy To: BRANDON MAEDA NAVFACHI EV1

Subj: ☐ LABORATORY REPORTS
☐ MISCELLANEOUS CHARGES AND/OR CHAIN(S) OF CUSTODY SHEETS

Encl: Lab Number(s) 18-08707 , 18-08708

1. Thank you for using our laboratory to provide you with quality test results and/or services.

2. Please take a few minutes and check over the enclosures. If you believe anything is missing or in need of correction, let us know immediately and we will send you a correction as soon as possible.

3. Our goal is to better serve all our customers and we are concerned that you are receiving our services in the most efficient and timely manner possible. Please acknowledge receipt by signing below and returning this memo so we will know that you have received the enclosures. Also feel free to include any comments you have concerning our services. You may return this memo to us through the guardmail (NAVFAC HI PRP411) or fax it to 471-4534.

4. After the laboratory reports are archived, additional copies are available with an archival fee of $72.00/hr. If you have any questions, please contact us at 474-3704 or at the above fax number.

~~5. Laboratory certifies that the results meet all A2LA requirements unless noted in the "remarks" section of the report.~~

LCB
10/25/18

Duane Morita, Acting Laboratory Manager

TOTAL NO. OF PAGES: 31

To: NAVFAC HI PRP4

☐ Receipt acknowledged. Enclosures appear complete and acceptable.

☐ Comments/discrepancies noted.

_____

_____

☐ Please fax corrections/amendments to Fax#: _____

or guardmail to: _____

Customer's Signature/Date: _____

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074-001
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA180008	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 01/02/2018

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LABORATORY CASE NARRATIVE

Client: NAVFAC Hawaii

Report #: 430396CN

All method QC was within acceptance limits.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Kelly Blackburn ASM

09/27/2018

Authorized Signature | Title | Date

Page 1 of 1

4

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Sample Analysis Report

Client: NAVFAC Hawaii
Contact: Duane Morita
Environmental Lab Code PRJ411
Building 1423
Central Ave.
JBPHH, Hawaii 96860
Voice: (808)-474-0768

Order No.: 343851
Receipt Batch No.: 430396

Analytical Method Summary:

Headspace analysis GC/FID – The sample was analyzed as received. 15 mL sample was pipetted into a 20 mL headspace vial containing 4 grams of sodium chloride. 10 µL of 5.5% isopropyl alcohol was added to the sample. Isopropyl alcohol was used as an internal standard. The sample was capped and heated to 75 °C for 30 minutes. The headspace was then sampled and analyzed using a modified EPA Method 8015B, a headspace GC/FID technique. The calibration concentration range was 0.05-4 mg/L. A quadratic calibration was used with a correlation coefficient (r^2) of 0.99. The minimum reporting level (MRL) was 0.1 mg/L.

For quantitation of JP-8 Fuel, the analysis included a set of initial calibration standards, an initial continuing calibration check (CCC) at 0.1 mg/L, a laboratory method blank (LMB), a matrix spike (MS) at 1.0 mg/L, and a closing CCC at 1.0 mg/L at the end of the run.

LAB SAMPLE ID: 4062780 **SAMPLE SITE:** 18-08707,JBPHHRedHill TP001 360-011

Analyte	MRL (mg/L)	Sample Result (mg/L)	LMB Result (mg/L)	MS Recovery (%)	Initial CCC Recovery (%)	Closing CCC Recovery (%)
JP-8 Fuel	0.1	< 0.1	< 0.1	78	102	87

Bill Davis 09262018 Tong Tao 09/26/2018
Analyst signature Date Reviewer signature Date

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110 S. Hill Street
South Bend, IN 46617
T: 1.800.332.4345
F: 1.574.233.8207

Order # 343851
Batch # 430396

www.eatonanalytical.com

Shaded area for EEA use only

CHAIN OF CUSTODY RECORD

REPORT TO	SAMPLER (Signature)	PWS ID #	STATE (sample origin)	PROJECT NAME	PO#
NAVFAC Hawaii		HI0000360	HI		

BILL TO:	COMPLIANCE MONITORING	Yes	No	POPULATION SERVED	SOURCE WATER
NAVFAC Hawaii					GW

	LAB Number	COLLECTION DATE	COLLECTION TIME	AM	PM	SAMPLING SITE	TEST NAME	SAMPLE REMARKS	CHLORINATED YES	CHLORINATED NO	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
1	410626780	09/18/18	0810	X		18-08707 JBPHH Red Hill TP001 360-011	TPH as Diesel (JP-8) (8015)		X		3	DW	RV
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

RUSH VERBAL

RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY (Signature)	DATE	TIME
	18/sep/18	1410 AM PM	Fedex		AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
		AM PM			AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME
		AM PM	K Dow	9-19-18	0914 AM PM

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS

CONDITIONS UPON RECEIPT (check one): Iced Wet/Blue ___ Ambient 2 °C Upon Receipt___ N/A

MATRIX CODES:

DW-DRINKING WATER
RW-REAGENT WATER
GW-GROUND WATER
EW-EXPOSURE WATER
SW-SURFACE WATER
PW-POOL WATER
WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written: (15 working days) 0%
RV* = Rush Verbal: (5 working days) 50%
RW* = Rush Written: (5 working days) 75%
IV* = Immediate Verbal: (3 working days) 100%
IW* = Immediate Written: (3 working days) 125%
SP* = Weekend, Holiday CALL
STAT* = Less than 48 hours CALL

* Please call, expedited service not available for all testing

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Navy Facilities Engineering Command, Hawaii, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 178014602018	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Brandon Maeda		Copy To:
NAVFAC HI OPBP6		NAVFAC HI EV1		
kyle.teraoka@navy.mil		brandon.j.maeda@navy.mil		

Sample ID	Sample Description	Matrix Code	Sampling Date	Sampling Time	Container Vol	Container Type	Analysis Required	Preservative / Res. Cl (ppm)	FOR LAB USE ONLY pH	Lab Number	Ext.	Lctn.	Cond. A	Cond. U
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Tap outside the Cl2 Bldg	DW	9/18/2018	0810	3x40mL	Glass	Volatiles (524.2)	Ascorbic, HCl		18-08707	1-3	C	✓	
					2x1L	Glass	Semi-Volatiles (525.2)	Sulfite, HCl 0.5		18-~~08707~~ 9/18/18	4-5	C	✓	
					3x40ml	Glass	TPH as Diesel (JP-8) (8015)				6-8	C	✓	
					125mL	Plastic	Lead (200.8)	HNO_3 pH<2			9	C	✓	
Trip Blank			8/28/2018		2x40mL	Glass	Volatiles	Ascorbic, HCl		18-08708	1-2	C	✓	

Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	Transported/Stored in: Cooler with ice	Cooler Temp: °C	[ ] Return to customer	[X] Received with CoC
Sampler(s): (Print names clearly) K. Miyaki	Air bill/Carrier ID#:		[X] Dispose at 60 Days	[ ] Received with Custody Seals
			[ ] Archive for ____ Days	[ ] Seals Required [ ] Seals Intact
			[ ] Contact before disposal	[X] Labels and CoC agree

Remarks: Any EPA approved drinking water method for organic chemicals, 40 CFR 141.24, may be used

Laboratory must certified by the Hawaii State DOH Drinking Water Program.

Relinquished By: (Print clearly & Sign)	Date	Time	Received By: (Print clearly & Sign)	Date	Time
K. Miyaki	9/18/18	1310		9/18/18	1310

PH-NAVFAC HI 6280/5 (Rev. 04-05)

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074-001
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA180008	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 01/02/2018

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Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: NAVFAC Hawaii

Attn: Duane Morita
Environmental Lab, Code PRJ411
Building 1423, Central Avenue
JBPHH, HI 96860

Report: 430395
Priority: Rush Verbal
Status: Final
PWS ID: HI0000360

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4062773	18-08707, JBPHH Red Hill	524.2	09/18/18 08:10	Client	09/20/18 08:45
4062774	18-08707, JBPHH Red Hill	525.2	09/18/18 08:10	Client	09/20/18 08:45
4062775	18-08707, JBPHH Red Hill	200.8	09/18/18 08:10	Client	09/20/18 08:45

Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Kelly Blackburn at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Kelly Blackburn ADM

Authorized Signature | Title | 10/02/2018 Date

Client Name: NAVFAC Hawaii
Report #: 430395

Client Name: NAVFAC Hawaii

Report #: 430395

Sampling Point: 18-08707, JBPHH Red Hill

PWS ID: HI0000360

Metals

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
7439-92-1	Lead	200.8	15 I	1.0	< 1.0	ug/L	—	09/25/18 15:18	4062775

Semi-volatile Organic Chemicals

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed	EEA ID #
83-32-9	Acenaphthene $	525.2	—	0.1	< 0.1	ug/L	09/21/18 07:56	09/22/18 02:17	4062774
208-96-8	Acenaphthylene $	525.2	—	0.1	< 0.1	ug/L	09/21/18 07:56	09/22/18 02:17	4062774
120-12-7	Anthracene $	525.2	—	0.1	< 0.1	ug/L	09/21/18 07:56	09/22/18 02:17	4062774
50-32-8	Benzo(a)pyrene	525.2	0.2 *	0.02	< 0.02	ug/L	09/21/18 07:56	09/22/18 02:17	4062774
103-23-1	Di(2-ethylhexyl)adipate	525.2	400 *	0.6	< 0.6	ug/L	09/21/18 07:56	09/22/18 02:17	4062774
117-81-7	Di(2-ethylhexyl)phthalate	525.2	6 *	0.6	< 0.6	ug/L	09/21/18 07:56	09/22/18 02:17	4062774
206-44-0	Fluoranthene $	525.2	—	0.1	< 0.1	ug/L	09/21/18 07:56	09/22/18 02:17	4062774
85-01-8	Phenanthrene $	525.2	—	0.1	< 0.1	ug/L	09/21/18 07:56	09/22/18 02:17	4062774
129-00-0	Pyrene $	525.2	—	0.1	< 0.1	ug/L	09/21/18 07:56	09/22/18 02:17	4062774

Volatile Organic Chemicals

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
71-43-2	Benzene	524.2	5 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
56-23-5	Carbon tetrachloride	524.2	5 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
108-90-7	Chlorobenzene	524.2	100 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
95-50-1	1,2-Dichlorobenzene	524.2	600 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
106-46-7	1,4-Dichlorobenzene	524.2	75 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
107-06-2	1,2-Dichloroethane	524.2	5 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
75-35-4	1,1-Dichloroethylene	524.2	7 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
156-59-2	cis-1,2-Dichloroethylene	524.2	70 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
156-60-5	trans-1,2-Dichloroethylene	524.2	100 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
75-09-2	Dichloromethane	524.2	5 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
78-87-5	1,2-Dichloropropane	524.2	5 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
100-41-4	Ethylbenzene	524.2	700 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
91-20-3	Naphthalene	524.2	—	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
100-42-5	Styrene	524.2	100 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
127-18-4	Tetrachloroethylene	524.2	5 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
108-88-3	Toluene	524.2	1000 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
120-82-1	1,2,4-Trichlorobenzene	524.2	70 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
71-55-6	1,1,1-Trichloroethane	524.2	200 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
79-00-5	1,1,2-Trichloroethane	524.2	5 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
79-01-6	Trichloroethylene	524.2	5 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
75-01-4	Vinyl chloride	524.2	2 *	0.2	< 0.2	ug/L	—	09/25/18 13:22	4062773
95-47-6	1,2-Xylene	524.2	—	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
179601-23-1	1,3 + 1,4-Xylene	524.2	—	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773
1330-20-7	Xylenes, Total	524.2	10000 *	0.5	< 0.5	ug/L	—	09/25/18 13:22	4062773

$ The state of origin does not offer certification for this parameter.

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

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F: 1.574.233.8207

Order # 343851
Batch # 430395

www.eatonanalytical.com

Shaded area for EEA use only

CHAIN OF CUSTODY RECORD

REPORT TO	SAMPLER (Signature)	PWS ID #	STATE (sample origin)	PROJECT NAME	PO#
NAVFAC Hawaii		HI0000360	HI		

BILL TO:	COMPLIANCE MONITORING	Yes	No	POPULATION SERVED	SOURCE WATER
NAVFAC Hawaii		X			GW

	LAB Number	COLLECTION DATE	TIME	AM	PM	SAMPLING SITE	TEST NAME	SAMPLE REMARKS	CHLORINATED YES	CHLORINATED NO	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME
1	40662773	09/18/18	0810	x		18-08707, JBPHH Red Hill	Volatiles (524.2) See attached list		X		3	DW	RV
2						TP001 360-011							
3	774						Semivolatiles (525.2) See attached list		X		2	DW	RV
4													
5	775						Lead (200.8)		X		1	DW	RV
6													
7													
8													
9	776	08/28/18				18-08708	Volatiles (524.2)		X		2	DW	RV
10						Trip Blank							
11													
12													
13													
14						FOLLOWED							

RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
	18Sep18	1400 AM PM	Fedex		AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED BY:(Signature)	DATE	TIME
		AM PM			AM PM
RELINQUISHED BY:(Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME
		AM PM	K Dw	9-20-18	0845 AM PM

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT

LAB COMMENTS

CONDITIONS UPON RECEIPT (check one): ___ Iced: Wet/Blue ___ Ambient 2 °C Upon Receipt ___ N/A

MATRIX CODES:

DW-DRINKING WATER
RW-REAGENT WATER
GW-GROUND WATER
EW-EXPOSURE WATER
SW-SURFACE WATER
PW-POOL WATER
WW-WASTE WATER

TURN-AROUND TIME (TAT) - SURCHARGES

SW = Standard Written. (15 working days)	0%	IV* = Immediate Verbal. (3 working days)	100%
RV* = Rush Verbal (5 working days)	50%	IW* = Immediate Written. (3 working days)	125%
RW* = Rush Written: (5 working days)	75%	SP* = Weekend, Holiday	CALL
		STAT* = Less than 48 hours	CALL

* Please call, expedited service not available for all testing

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.

06-LC-F0435 Issue 4.0 Effective Date: 2014-05-01

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agree to in writing by EEA.

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Navy Facilities Engineering Command, Hawaii, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 178014602018	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Brandon Maeda	Copy To:	
NAVFAC HI OPBP6		NAVFAC HI EVI		
kyle.teraoka@navy.mil		brandon.j.maeda@navy.mil		

Sample ID	Sample Description	Matrix Code	Sampling Date	Sampling Time	Container Vol	Container Type	Analysis Required	Preservative / Res. Cl (ppm)	pH	FOR LAB USE ONLY Lab Number	Ext.	Ltrs.	Cond. A	Cond. U
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Tap outside the Cl2 Bldg	DW	9/18/2018	0815	3x40mL	Glass	Volatiles (524.2)	Ascorbic, HCl		18-08707	1-3	C	✓	
					2x1L	Glass	Semi-Volatiles (525.2)	Sulfite, HCl / 0.5		18-08707 9/18/18	4-5	C	✓	
					3x40mL	Glass	TPH as Diesel (JP-8) (8015)				6-8	C	✓	
					125mL	Plastic	Lead (200.8)	HNO_3 pH<2			9	C	✓	
Trip Blank			8/28/2018		2x40mL	Glass	Volatiles	Ascorbic, HCl		18-08708	1-2	C	✓	

Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	Transported/Stored in: Cooler with ice	Cooler Temp: °C	[ ] Return to customer	[X] Received with CoC
Sampler(s): (Print names clearly) K. Miyaki	Air bill/Carrier ID#:		[X] Dispose at 60 Days	[ ] Received with Custody Seals
			[ ] Archive for ____ Days	[ ] Seals Required [ ] Seals Intact
			[ ] Contact before disposal	[X] Labels and CoC agree

Remarks: Any EPA approved drinking water method for organic chemicals, 40 CFR 141.24, may be used.
Laboratory must certified by the Hawaii State DOH Drinking Water Program.

Relinquished By: (Print clearly & Sign)	Date	Time	Received By: (Print clearly & Sign)	Date	Time
K. Miyaki	9/18/18	1310		9/18/18	1310

PH-NAVFAC HI 6280/5 (Rev. 04-05)

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Run Log
Run ID: **249072** Method: **200.8**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
QCS	4065854		RW	FQ	09/25/2018 14:11	
ICV	4065855		RW	FQ	09/25/2018 14:14	
ICB	4065942		RW	FQ	09/25/2018 14:16	
LRB	4066465		RW	FQ	09/25/2018 14:21	
LFB	4066446		RW	FQ	09/25/2018 14:26	
CCV	4065967		RW	FQ	09/25/2018 14:58	
CCB	4065968		RW	FQ	09/25/2018 15:00	
FS	4062775	18-08707, JBPHH Red Hill	DW	FQ	09/25/2018 15:18	
CCV	4066449		RW	FQ	09/25/2018 15:20	
CCB	4066450		RW	FQ	09/25/2018 15:23	

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
QCS	IS-Bismuth	200.8	N/A	—		0.9542	1.0	N/A	95	60 - 125	—	—	1.0	—	09/25/2018 14:11	4065854
QCS	Lead	200.8	1.0	—		52.3150	50.0	ug/L	105	90 - 110	—	—	1.0	—	09/25/2018 14:11	4065854
QCS	IS-Yttrium	200.8	N/A	—		0.9591	1.0	N/A	96	60 - 125	—	—	1.0	—	09/25/2018 14:11	4065854
ICV	IS-Bismuth	200.8	N/A	—		0.9623	1.0	N/A	96	60 - 125	—	—	1.0	—	09/25/2018 14:14	4065855
ICV	Lead	200.8	1.0	—		51.7730	50.0	ug/L	104	90 - 110	—	—	1.0	—	09/25/2018 14:14	4065855
ICV	IS-Yttrium	200.8	N/A	—		0.9559	1.0	N/A	96	60 - 125	—	—	1.0	—	09/25/2018 14:14	4065855
ICB	IS-Bismuth	200.8	N/A	—		0.9610	1.0	N/A	96	60 - 125	—	—	1.0	—	09/25/2018 14:16	4065942
ICB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	09/25/2018 14:16	4065942
ICB	IS-Yttrium	200.8	N/A	—		0.9545	1.0	N/A	95	60 - 125	—	—	1.0	—	09/25/2018 14:16	4065942
LRB	IS-Bismuth	200.8	N/A	—		1.0549	1.0	N/A	105	60 - 125	—	—	1.0	—	09/25/2018 14:21	4066465
LRB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	09/25/2018 14:21	4066465
LRB	IS-Yttrium	200.8	N/A	—		1.0468	1.0	N/A	105	60 - 125	—	—	1.0	—	09/25/2018 14:21	4066465
LFB	IS-Bismuth	200.8	N/A	—		0.9359	1.0	N/A	94	60 - 125	—	—	1.0	—	09/25/2018 14:26	4066446
LFB	Lead	200.8	1.0	—		56.4170	50.0	ug/L	113	85 - 115	—	—	1.0	—	09/25/2018 14:26	4066446
LFB	IS-Yttrium	200.8	N/A	—		0.9418	1.0	N/A	94	60 - 125	—	—	1.0	—	09/25/2018 14:26	4066446
CCV	IS-Bismuth	200.8	N/A	—		0.8784	1.0	N/A	88	60 - 125	—	—	1.0	—	09/25/2018 14:58	4065967
CCV	Lead	200.8	1.0	—		53.0480	50.0	ug/L	106	85 - 115	—	—	1.0	—	09/25/2018 14:58	4065967
CCV	IS-Yttrium	200.8	N/A	—		0.8752	1.0	N/A	88	60 - 125	—	—	1.0	—	09/25/2018 14:58	4065967
CCB	IS-Bismuth	200.8	N/A	—		0.8750	1.0	N/A	87	60 - 125	—	—	1.0	—	09/25/2018 15:00	4065968
CCB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	09/25/2018 15:00	4065968
CCB	IS-Yttrium	200.8	N/A	—		0.8665	1.0	N/A	87	60 - 125	—	—	1.0	—	09/25/2018 15:00	4065968
FS	IS-Bismuth	200.8	N/A	18-08707, JBPHH Red Hill		0.8746	1.0	N/A	87	60 - 125	—	—	1.0	—	09/25/2018 15:18	4062775
FS	Lead	200.8	1.0	18-08707, JBPHH Red Hill	<	1.0		ug/L	—	—	—	—	1.0	—	09/25/2018 15:18	4062775
FS	IS-Yttrium	200.8	N/A	18-08707, JBPHH Red Hill		0.9047	1.0	N/A	90	60 - 125	—	—	1.0	—	09/25/2018 15:18	4062775
CCV	IS-Bismuth	200.8	N/A	—		0.8556	1.0	N/A	86	60 - 125	—	—	1.0	—	09/25/2018 15:20	4066449
CCV	Lead	200.8	1.0	—		52.9570	50.0	ug/L	106	85 - 115	—	—	1.0	—	09/25/2018 15:20	4066449
CCV	IS-Yttrium	200.8	N/A	—		0.8700	1.0	N/A	87	60 - 125	—	—	1.0	—	09/25/2018 15:20	4066449
CCB	IS-Bismuth	200.8	N/A	—		0.8813	1.0	N/A	88	60 - 125	—	—	1.0	—	09/25/2018 15:23	4066450
CCB	Lead	200.8	1.0	—	<	1.0		ug/L	—	—	—	—	1.0	—	09/25/2018 15:23	4066450
CCB	IS-Yttrium	200.8	N/A	—		0.8910	1.0	N/A	89	60 - 125	—	—	1.0	—	09/25/2018 15:23	4066450

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Run Log
Run ID: **249290** Method: **524.2**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
CCC	4066555		RW	PW2	09/25/2018 09:32	524 2-083018-PW2.mth
CCL	4066556		RW	PW2	09/25/2018 10:14	524 2-083018-PW2.mth
LMB	4066557		RW	PW2	09/25/2018 10:56	524 2-083018-PW2.mth
FS	4062773	18-08707, JBPHH Red Hill	DW	PW2	09/25/2018 13:22	524 2-083018-PW2.mth
CCC	4066274		RW	PW2	09/25/2018 18:59	524 2-083018-PW2.mth
LMB	4066278		RW	PW2	09/25/2018 20:38	524 2-083018-PW2.mth

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCC	IS-1,4-Difluorobenzene	524.2	N/A	---		280835	280835	ug/L	100	50 - 150	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	SS-Bromofluorobenzene	524.2	N/A	---		5.2060	5.0	ug/L	104	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	SS-1,2-Dichlorobenzene-d4	524.2	N/A	---		10.3730	10.0	ug/L	104	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	SS-1,2-Dichloroethane-d4	524.2	N/A	---		9.6480	10.0	ug/L	96	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	SS-Toluene-d8	524.2	N/A	---		10.2990	10.0	ug/L	103	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Benzene	524.2	0.5	---		4.9860	5.0	ug/L	100	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Carbon tetrachloride	524.2	0.5	---		4.8310	5.0	ug/L	97	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Chlorobenzene	524.2	0.5	---		4.8760	5.0	ug/L	98	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	1,2-Dichlorobenzene	524.2	0.5	---		4.8190	5.0	ug/L	96	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	1,4-Dichlorobenzene	524.2	0.5	---		4.9150	5.0	ug/L	98	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	1,2-Dichloroethane	524.2	0.5	---		5.1240	5.0	ug/L	102	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	1,1-Dichloroethylene	524.2	0.5	---		4.8110	5.0	ug/L	96	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	cis-1,2-Dichloroethylene	524.2	0.5	---		4.9830	5.0	ug/L	100	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	trans-1,2-Dichloroethylene	524.2	0.5	---		4.9100	5.0	ug/L	98	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Dichloromethane	524.2	0.5	---		5.1870	5.0	ug/L	104	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	1,2-Dichloropropane	524.2	0.5	---		5.0160	5.0	ug/L	100	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Ethylbenzene	524.2	0.5	---		4.8930	5.0	ug/L	98	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Naphthalene	524.2	0.5	---		4.7180	5.0	ug/L	94	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Styrene	524.2	0.5	---		4.8730	5.0	ug/L	97	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Tetrachloroethylene	524.2	0.5	---		4.8180	5.0	ug/L	96	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Toluene	524.2	0.5	---		4.9750	5.0	ug/L	100	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	1,2,4-Trichlorobenzene	524.2	0.5	---		4.6910	5.0	ug/L	94	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	1,1,1-Trichloroethane	524.2	0.5	---		4.9570	5.0	ug/L	99	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	1,1,2-Trichloroethane	524.2	0.5	---		5.0000	5.0	ug/L	100	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Trichloroethylene	524.2	0.5	---		5.0050	5.0	ug/L	100	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	Vinyl chloride	524.2	0.2	---		4.8990	5.0	ug/L	98	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	1,2-Xylene	524.2	0.5	---		5.0330	5.0	ug/L	101	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCC	1,3 + 1,4-Xylene	524.2	0.5	---		9.7890	10.0	ug/L	98	70 - 130	---	---	1.0	---	09/25/2018 09:32	4066555
CCL	IS-1,4-Difluorobenzene	524.2	N/A	---		279264	279264	ug/L	100	50 - 150	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	SS-Bromofluorobenzene	524.2	N/A	---		5.1980	5.0	ug/L	104	70 - 130	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	SS-1,2-Dichlorobenzene-d4	524.2	N/A	---		10.1810	10.0	ug/L	102	70 - 130	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	SS-1,2-Dichloroethane-d4	524.2	N/A	---		9.5730	10.0	ug/L	96	70 - 130	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	SS-Toluene-d8	524.2	N/A	---		9.9610	10.0	ug/L	100	70 - 130	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	Benzene	524.2	0.5	---		0.5020	0.5	ug/L	100	68 - 118	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	Carbon tetrachloride	524.2	0.5	---		0.5000	0.5	ug/L	100	61 - 118	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	Chlorobenzene	524.2	0.5	---		0.5280	0.5	ug/L	106	66 - 122	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	1,2-Dichlorobenzene	524.2	0.5	---		0.5300	0.5	ug/L	106	67 - 126	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	1,4-Dichlorobenzene	524.2	0.5	---		0.4950	0.5	ug/L	99	61 - 126	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	1,2-Dichloroethane	524.2	0.5	---		0.5200	0.5	ug/L	104	69 - 119	---	---	1.0	---	09/25/2018 10:14	4066556
CCL	1,1-Dichloroethylene	524.2	0.5	---		0.5270	0.5	ug/L	105	62 - 121	---	---	1.0	---	09/25/2018 10:14	4066556

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCL	cis-1,2-Dichloroethylene	524.2	0.5	—		0.5100	0.5	ug/L	102	67 - 117	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	trans-1,2-Dichloroethylene	524.2	0.5	—		0.5090	0.5	ug/L	102	63 - 119	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	Dichloromethane	524.2	0.5	—		0.3600	0.5	ug/L	72	38 - 154	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	1,2-Dichloropropane	524.2	0.5	—		0.5090	0.5	ug/L	102	65 - 121	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	Ethylbenzene	524.2	0.5	—		0.4870	0.5	ug/L	97	63 - 119	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	Styrene	524.2	0.5	—		0.4810	0.5	ug/L	96	54 - 133	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	Tetrachloroethylene	524.2	0.5	—		0.4940	0.5	ug/L	99	59 - 124	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	Toluene	524.2	0.5	—		0.4980	0.5	ug/L	100	65 - 119	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	1,2,4-Trichlorobenzene	524.2	0.5	—		0.4930	0.5	ug/L	99	57 - 150	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	1,1,1-Trichloroethane	524.2	0.5	—		0.5170	0.5	ug/L	103	61 - 116	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	1,1,2-Trichloroethane	524.2	0.5	—		0.4990	0.5	ug/L	100	66 - 118	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	Trichloroethylene	524.2	0.5	—		0.5160	0.5	ug/L	103	64 - 119	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	Vinyl chloride	524.2	0.2	—		0.4460	0.5	ug/L	89	52 - 130	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	1,2-Xylene	524.2	0.5	—		0.4920	0.5	ug/L	98	67 - 119	—	—	1.0	—	09/25/2018 10:14	4066556
CCL	1,3 + 1,4-Xylene	524.2	0.5	—		0.9600	1.0	ug/L	96	65 - 119	—	—	1.0	—	09/25/2018 10:14	4066556
LMB	IS-1,4-Difluorobenzene	524.2	N/A	—		269441	279264	ug/L	96	70 - 130	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	SS-Bromofluorobenzene	524.2	N/A	—		5.1030	5.0	ug/L	102	70 - 130	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	SS-1,2-Dichlorobenzene-d4	524.2	N/A	—		10.2990	10.0	ug/L	103	70 - 130	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	SS-1,2-Dichloroethane-d4	524.2	N/A	—		9.7820	10.0	ug/L	98	70 - 130	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	SS-Toluene-d8	524.2	N/A	—		10.1300	10.0	ug/L	101	70 - 130	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Benzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Carbon tetrachloride	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Chlorobenzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	1,2-Dichlorobenzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	1,4-Dichlorobenzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	1,2-Dichloroethane	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	1,1-Dichloroethylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	cis-1,2-Dichloroethylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	trans-1,2-Dichloroethylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Dichloromethane	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	1,2-Dichloropropane	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Ethylbenzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Naphthalene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Styrene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Tetrachloroethylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Toluene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	1,2,4-Trichlorobenzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	1,1,1-Trichloroethane	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	1,1,2-Trichloroethane	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Trichloroethylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	Vinyl chloride	524.2	0.2	—	<	0.2		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
LMB	1,2-Xylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
LMB	1,3 + 1,4-Xylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 10:56	4066557
FS	IS-1,4-Difluorobenzene	524.2	N/A	18-08707 JBPHH Red Hill		287696	279264	ug/L	103	70 - 130	—	—	1.0	—	09/25/2018 13:22	4062773
FS	SS-Bromofluorobenzene	524.2	N/A	18-08707 JBPHH Red Hill		4.9850	5.0	ug/L	100	70 - 130	—	—	1.0	—	09/25/2018 13:22	4062773
FS	SS-1,2-Dichlorobenzene-d4	524.2	N/A	18-08707 JBPHH Red Hill		10.2850	10.0	ug/L	103	70 - 130	—	—	1.0	—	09/25/2018 13:22	4062773
FS	SS-1,2-Dichloroethane-d4	524.2	N/A	18-08707 JBPHH Red Hill		9.8810	10.0	ug/L	99	70 - 130	—	—	1.0	—	09/25/2018 13:22	4062773
FS	SS-Toluene-d8	524.2	N/A	18-08707 JBPHH Red Hill		10.0580	10.0	ug/L	101	70 - 130	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Benzene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Carbon tetrachloride	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Chlorobenzene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	1,2-Dichlorobenzene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	1,4-Dichlorobenzene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	1,2-Dichloroethane	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	1,1-Dichloroethylene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	cis-1,2-Dichloroethylene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	trans-1,2-Dichloroethylene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Dichloromethane	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	1,2-Dichloropropane	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Ethylbenzene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Naphthalene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Styrene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Tetrachloroethylene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Toluene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	1,2,4-Trichlorobenzene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	1,1,1-Trichloroethane	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	1,1,2-Trichloroethane	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Trichloroethylene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Vinyl chloride	524.2	0.2	18-08707 JBPHH Red Hill	<	0.2		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	1,2-Xylene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	1,3 + 1,4-Xylene	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
FS	Xylenes, Total	524.2	0.5	18-08707 JBPHH Red Hill	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 13:22	4062773
CCC	IS-1,4-Difluorobenzene	524.2	N/A	—		257578	257578	ug/L	100	50 - 150	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	SS-Bromofluorobenzene	524.2	N/A	—		5.3070	5.0	ug/L	106	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	SS-1,2-Dichlorobenzene-d4	524.2	N/A	—		10.8370	10.0	ug/L	108	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	SS-1,2-Dichloroethane-d4	524.2	N/A	—		10.0140	10.0	ug/L	100	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	SS-Toluene-d8	524.2	N/A	—		10.2590	10.0	ug/L	103	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Benzene	524.2	0.5	—		10.1080	10.0	ug/L	101	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Carbon tetrachloride	524.2	0.5	—		9.8310	10.0	ug/L	98	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Chlorobenzene	524.2	0.5	—		10.0220	10.0	ug/L	100	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	1,2-Dichlorobenzene	524.2	0.5	—		9.9300	10.0	ug/L	99	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	1,4-Dichlorobenzene	524.2	0.5	—		9.9690	10.0	ug/L	100	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCC	1,2-Dichloroethane	524.2	0.5	—		10.2390	10.0	ug/L	102	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	1,1-Dichloroethylene	524.2	0.5	—		9.9650	10.0	ug/L	100	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	cis-1,2-Dichloroethylene	524.2	0.5	—		10.0100	10.0	ug/L	100	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	trans-1,2-Dichloroethylene	524.2	0.5	—		10.1180	10.0	ug/L	101	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Dichloromethane	524.2	0.5	—		10.4770	10.0	ug/L	105	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	1,2-Dichloropropane	524.2	0.5	—		10.3080	10.0	ug/L	103	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Ethylbenzene	524.2	0.5	—		9.9380	10.0	ug/L	99	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Naphthalene	524.2	0.5	—		10.5190	10.0	ug/L	105	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Styrene	524.2	0.5	—		10.1640	10.0	ug/L	102	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Tetrachloroethylene	524.2	0.5	—		10.0390	10.0	ug/L	100	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Toluene	524.2	0.5	—		10.1030	10.0	ug/L	101	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	1,2,4-Trichlorobenzene	524.2	0.5	—		9.6360	10.0	ug/L	96	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	1,1,1-Trichloroethane	524.2	0.5	—		10.1440	10.0	ug/L	101	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	1,1,2-Trichloroethane	524.2	0.5	—		10.3770	10.0	ug/L	104	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Trichloroethylene	524.2	0.5	—		10.0040	10.0	ug/L	100	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	Vinyl chloride	524.2	0.2	—		8.0330	10.0	ug/L	80	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	1,2-Xylene	524.2	0.5	—		10.1160	10.0	ug/L	101	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
CCC	1,3 + 1,4-Xylene	524.2	0.5	—		20.0930	20.0	ug/L	100	70 - 130	—	—	1.0	—	09/25/2018 18:59	4066274
LMB	IS-1,4-Difluorobenzene	524.2	N/A	—		282253	257578	ug/L	110	70 - 130	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	SS-Bromofluorobenzene	524.2	N/A	—		4.9380	5.0	ug/L	99	70 - 130	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	SS-1,2-Dichlorobenzene-d4	524.2	N/A	—		9.7680	10.0	ug/L	98	70 - 130	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	SS-1,2-Dichloroethane-d4	524.2	N/A	—		9.7220	10.0	ug/L	97	70 - 130	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	SS-Toluene-d8	524.2	N/A	—		10.0350	10.0	ug/L	100	70 - 130	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Benzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Carbon tetrachloride	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Chlorobenzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	1,2-Dichlorobenzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	1,4-Dichlorobenzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	1,2-Dichloroethane	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	1,1-Dichloroethylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	cis-1,2-Dichloroethylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	trans-1,2-Dichloroethylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Dichloromethane	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	1,2-Dichloropropane	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Ethylbenzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Naphthalene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Styrene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Tetrachloroethylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Toluene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	1,2,4-Trichlorobenzene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	1,1,1-Trichloroethane	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
LMB	1,1,2-Trichloroethane	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Trichloroethylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	Vinyl chloride	524.2	0.2	—	<	0.2		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	1,2-Xylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278
LMB	1,3 + 1,4-Xylene	524.2	0.5	—	<	0.5		ug/L	—	—	—	—	1.0	—	09/25/2018 20:38	4066278

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Run Log
Run ID: **249100** Method: **525.2**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
CCC	4064586		OS	DO	09/21/2018 19:17	525 2-DO-101216a-up2.mth
CCC	4064587		OS	DO	09/21/2018 19:59	525 2-DO-101216a-up2.mth
CCC	4064588		OS	DO	09/21/2018 20:41	525 2-DO-101216a-up2.mth
LFB	4064576		RW	DO	09/21/2018 21:23	525 2-DO-101216a-up2.mth
LFB	4064577		RW	DO	09/21/2018 22:47	525 2-DO-101216a-up2.mth
LFB	4064578		RW	DO	09/22/2018 00:11	525 2-DO-101216a-up2.mth
LMB	4064575		RW	DO	09/22/2018 01:35	525 2-DO-101216a-up2.mth
FS	4062774	18-08707, JBPHH Red Hill	DW	DO	09/22/2018 02:17	525 2-DO-101216a-up2.mth
MS	4064581	18-08707, JBPHH Red Hill	DW	DO	09/22/2018 02:58	525 2-DO-101216a-up2.mth

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCC	IS-Chrysene-d12	525.2	N/A	—		1724000	1724000	ug/L	100	50 - 150	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	IS-Phenanthrene-d10	525.2	N/A	—		2503000	2503000	ug/L	100	50 - 150	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	IS-Pyrene-d10	525.2	N/A	—		1906000	1906000	ug/L	100	50 - 150	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		4.2500	5.0	ug/L	85	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.7950	5.0	ug/L	96	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	SS-Triphenylphosphate	525.2	N/A	—		5.4370	5.0	ug/L	109	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	Acenaphthene	525.2	0.1	—		4.0840	5.0	ug/L	82	72 - 122	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	Acenaphthylene	525.2	0.1	—		4.5700	5.0	ug/L	91	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	Anthracene	525.2	0.1	—		5.3820	5.0	ug/L	108	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	Phenanthrene	525.2	0.1	—		4.6380	5.0	ug/L	93	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	Pyrene	525.2	0.1	—		4.9570	5.0	ug/L	99	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 19:17	4064586
CCC	IS-Chrysene-d12	525.2	N/A	—		1438000	1438000	ug/L	100	50 - 150	—	—	1.0	09/21/2018 07:56	09/21/2018 19:59	4064587
CCC	IS-Phenanthrene-d10	525.2	N/A	—		2174000	2174000	ug/L	100	50 - 150	—	—	1.0	09/21/2018 07:56	09/21/2018 19:59	4064587
CCC	IS-Pyrene-d10	525.2	N/A	—		1688000	1688000	ug/L	100	50 - 150	—	—	1.0	09/21/2018 07:56	09/21/2018 19:59	4064587
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		4.9370	5.0	ug/L	99	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 19:59	4064587
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.7420	5.0	ug/L	95	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 19:59	4064587
CCC	SS-Triphenylphosphate	525.2	N/A	—		5.6080	5.0	ug/L	112	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 19:59	4064587
CCC	Fluoranthene	525.2	0.1	—		5.7440	5.0	ug/L	115	73 - 122	—	—	1.0	09/21/2018 07:56	09/21/2018 19:59	4064587
CCC	IS-Chrysene-d12	525.2	N/A	—		1536000	1536000	ug/L	100	50 - 150	—	—	1.0	09/21/2018 07:56	09/21/2018 20:41	4064588
CCC	IS-Phenanthrene-d10	525.2	N/A	—		2190000	2190000	ug/L	100	50 - 150	—	—	1.0	09/21/2018 07:56	09/21/2018 20:41	4064588
CCC	IS-Pyrene-d10	525.2	N/A	—		1722000	1722000	ug/L	100	50 - 150	—	—	1.0	09/21/2018 07:56	09/21/2018 20:41	4064588
CCC	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		5.0930	5.0	ug/L	102	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 20:41	4064588
CCC	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.4190	5.0	ug/L	88	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 20:41	4064588
CCC	SS-Triphenylphosphate	525.2	N/A	—		5.4910	5.0	ug/L	110	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 20:41	4064588
CCC	Benzo(a)pyrene	525.2	0.02	—		4.5650	5.0	ug/L	91	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 20:41	4064588
CCC	Di(2-ethylhexyl)adipate	525.2	0.6	—		5.5950	5.0	ug/L	112	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 20:41	4064588
CCC	Di(2-ethylhexyl)phthalate	525.2	0.6	—		5.6090	5.0	ug/L	112	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 20:41	4064588
LFB	IS-Chrysene-d12	525.2	N/A	—		1202000	1536000	ug/L	78	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 21:23	4064576
LFB	IS-Phenanthrene-d10	525.2	N/A	—		1663000	2190000	ug/L	76	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 21:23	4064576
LFB	IS-Pyrene-d10	525.2	N/A	—		1493000	1722000	ug/L	87	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 21:23	4064576
LFB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		5.0300	5.0	ug/L	101	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 21:23	4064576
LFB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.6410	5.0	ug/L	93	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 21:23	4064576
LFB	SS-Triphenylphosphate	525.2	N/A	—		5.6730	5.0	ug/L	113	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 21:23	4064576
LFB	Fluoranthene	525.2	0.1	—		6.0360	5.0	ug/L	121	74 - 125	—	—	1.0	09/21/2018 07:56	09/21/2018 21:23	4064576
LFB	IS-Chrysene-d12	525.2	N/A	—		1541000	1536000	ug/L	100	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 22:47	4064577
LFB	IS-Phenanthrene-d10	525.2	N/A	—		2075000	2190000	ug/L	95	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 22:47	4064577
LFB	IS-Pyrene-d10	525.2	N/A	—		1793000	1722000	ug/L	104	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 22:47	4064577
LFB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		5.0410	5.0	ug/L	101	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 22:47	4064577
LFB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.1590	5.0	ug/L	83	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 22:47	4064577
LFB	SS-Triphenylphosphate	525.2	N/A	—		5.3670	5.0	ug/L	107	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 22:47	4064577

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
LFB	Benzo(a)pyrene	525.2	0.02	—		4.3110	5.0	ug/L	86	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 22:47	4064577
LFB	Di(2-ethylhexyl)adipate	525.2	0.6	—		5.5350	5.0	ug/L	111	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 22:47	4064577
LFB	Di(2-ethylhexyl)phthalate	525.2	0.6	—		5.3560	5.0	ug/L	107	70 - 130	—	—	1.0	09/21/2018 07:56	09/21/2018 22:47	4064577
LFB	IS-Chrysene-d12	525.2	N/A	—		1347000	1536000	ug/L	88	70 - 130	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LFB	IS-Phenanthrene-d10	525.2	N/A	—		1684000	2190000	ug/L	77	70 - 130	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LFB	IS-Pyrene-d10	525.2	N/A	—		1501000	1722000	ug/L	87	70 - 130	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LFB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		4.4680	5.0	ug/L	89	70 - 130	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LFB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.6020	5.0	ug/L	92	70 - 130	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LFB	SS-Triphenylphosphate	525.2	N/A	—		5.5280	5.0	ug/L	111	70 - 130	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LFB	Acenaphthene	525.2	0.1	—		3.6280	5.0	ug/L	73	58 - 116	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LFB	Acenaphthylene	525.2	0.1	—		4.3510	5.0	ug/L	87	70 - 130	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LFB	Anthracene	525.2	0.1	—		4.9250	5.0	ug/L	98	70 - 130	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LFB	Phenanthrene	525.2	0.1	—		4.6720	5.0	ug/L	93	70 - 130	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LFB	Pyrene	525.2	0.1	—		5.5970	5.0	ug/L	112	70 - 130	—	—	1.0	09/21/2018 07:56	09/22/2018 00:11	4064578
LMB	IS-Chrysene-d12	525.2	N/A	—		1447000	1536000	ug/L	94	70 - 130	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	IS-Phenanthrene-d10	525.2	N/A	—		2255000	2190000	ug/L	103	70 - 130	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	IS-Pyrene-d10	525.2	N/A	—		1682000	1722000	ug/L	98	70 - 130	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	SS-4,4'-Dichlorobiphenyl	525.2	N/A	—		4.8160	5.0	ug/L	100	70 - 130	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	—		4.5430	5.0	ug/L	95	70 - 130	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	SS-Triphenylphosphate	525.2	N/A	—		5.3330	5.0	ug/L	111	70 - 130	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	Acenaphthene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	Acenaphthylene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	Anthracene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	Benzo(a)pyrene	525.2	0.02	—	<	0.02		ug/L	—	—	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	Di(2-ethylhexyl)adipate	525.2	0.6	—	<	0.6		ug/L	—	—	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	Di(2-ethylhexyl)phthalate	525.2	0.6	—	<	0.6		ug/L	—	—	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	Fluoranthene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	Phenanthrene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
LMB	Pyrene	525.2	0.1	—	<	0.1		ug/L	—	—	—	—	0.96	09/21/2018 07:56	09/22/2018 01:35	4064575
FS	IS-Chrysene-d12	525.2	N/A	18-08707, JBPHH Red Hill		1228000	1536000	ug/L	80	70 - 130	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	IS-Phenanthrene-d10	525.2	N/A	18-08707, JBPHH Red Hill		1824000	2190000	ug/L	83	70 - 130	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	IS-Pyrene-d10	525.2	N/A	18-08707, JBPHH Red Hill		1494000	1722000	ug/L	87	70 - 130	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	SS-4,4'-Dichlorobiphenyl	525.2	N/A	18-08707, JBPHH Red Hill		4.9780	5.0	ug/L	103	70 - 130	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	18-08707, JBPHH Red Hill		4.6880	5.0	ug/L	97	70 - 130	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	SS-Triphenylphosphate	525.2	N/A	18-08707, JBPHH Red Hill		5.5150	5.0	ug/L	114	70 - 130	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	Acenaphthene	525.2	0.1	18-08707, JBPHH Red Hill	<	0.1		ug/L	—	—	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	Acenaphthylene	525.2	0.1	18-08707, JBPHH Red Hill	<	0.1		ug/L	—	—	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	Anthracene	525.2	0.1	18-08707, JBPHH Red Hill	<	0.1		ug/L	—	—	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	Benzo(a)pyrene	525.2	0.02	18-08707, JBPHH Red Hill	<	0.02		ug/L	—	—	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	Di(2-ethylhexyl)adipate	525.2	0.6	18-08707, JBPHH Red Hill	<	0.6		ug/L	—	—	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	Di(2-ethylhexyl)phthalate	525.2	0.6	18-08707, JBPHH Red Hill	<	0.6		ug/L	—	—	—	—	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FS	Fluoranthene	525.2	0.1	18-08707, JBPHH Red Hill	<	0.1		ug/L	---	---	---	---	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	Phenanthrene	525.2	0.1	18-08707, JBPHH Red Hill	<	0.1		ug/L	---	---	---	---	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
FS	Pyrene	525.2	0.1	18-08707, JBPHH Red Hill	<	0.1		ug/L	---	---	---	---	0.97	09/21/2018 07:56	09/22/2018 02:17	4062774
MS	IS-Chrysene-d12	525.2	N/A	18-08707 JBPHH Red Hill		1619000	1536000	ug/L	105	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	IS-Phenanthrene-d10	525.2	N/A	18-08707 JBPHH Red Hill		2151000	2190000	ug/L	98	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	IS-Pyrene-d10	525.2	N/A	18-08707 JBPHH Red Hill		1812000	1722000	ug/L	105	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	SS-4,4'-Dichlorobiphenyl	525.2	N/A	18-08707 JBPHH Red Hill		4.0700	5.0	ug/L	84	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	SS-2,4,5,6-Tetrachloro-m-xylene	525.2	N/A	18-08707 JBPHH Red Hill		3.7410	5.0	ug/L	77	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	SS-Triphenylphosphate	525.2	N/A	18-08707 JBPHH Red Hill		5.1270	5.0	ug/L	106	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	Acenaphthene	525.2	0.1	18-08707 JBPHH Red Hill		4.2030	5.0	ug/L	87	58 - 116	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	Acenaphthylene	525.2	0.1	18-08707 JBPHH Red Hill		4.8290	5.0	ug/L	100	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	Anthracene	525.2	0.1	18-08707 JBPHH Red Hill		4.6360	5.0	ug/L	96	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	Benzo(a)pyrene	525.2	0.02	18-08707 JBPHH Red Hill		4.7100	5.0	ug/L	97	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	Di(2-ethylhexyl)adipate	525.2	0.6	18-08707 JBPHH Red Hill		5.1780	5.0	ug/L	107	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	Di(2-ethylhexyl)phthalate	525.2	0.6	18-08707 JBPHH Red Hill		5.2690	5.0	ug/L	109	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	Fluoranthene	525.2	0.1	18-08707 JBPHH Red Hill		5.7600	5.0	ug/L	119	74 - 125	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	Phenanthrene	525.2	0.1	18-08707 JBPHH Red Hill		4.6670	5.0	ug/L	96	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581
MS	Pyrene	525.2	0.1	18-08707 JBPHH Red Hill		5.2980	5.0	ug/L	109	70 - 130	---	---	0.97	09/21/2018 07:56	09/22/2018 02:58	4064581

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCV	Continuing Cali. Verification		
CCB	Continuing Calibration Blank		
CCC	Continuing Calibration Check		
CCL	Continuing Calibration Low		
FS	Field Sample		
ICV	Initial Cali. Verification		
ICB	Initial Calibration Blank		
LFB	Laboratory Fortified Blank		
LMB	Laboratory Method Blank		
LRB	Laboratory Reagent Blank		
MS	Matrix Spike		
QCS	Quality Control Sample		

END OF REPORT

NAVFAC HAWAII ENVIRONMENTAL SERVICES LABORATORY CHAIN-OF-CUSTODY

Navy Facilities Engineering Command, Hawaii, Pearl Harbor, Hawaii Phone: (808) 474-3704, FAX: (808) 471-4534

JON: 178014602018	ESM:	POC: Kyle Teraoka	PH#: 473-3160	FAX#: 473-1545
Report To: Kyle Teraoka		Copy To: Brandon Maeda	Copy To:	
NAVFAC HI OPBP6		NAVFAC HI EV1		
kyle.teraoka@navy.mil		brandon.j.maeda@navy.mil		

Sample ID	Sample Description	Matrix Code	Sampling Date	Sampling Time	Container Vol	Container Type	Analysis Required	Preservative / Res. Cl (ppm)	pH	FOR LAB USE ONLY Lab Number	Ext.	Ltn.	Cond. A	Cond. U
Joint Base Pearl Harbor-Hickam (360-011)	Red Hill, TP001, Tap outside the Cl2 Bldg	DW	9/18/2018	0810	3x40mL	Glass	Volatiles (524.2)	Ascorbic, HCl		18-08707	1-3	C	✓	
					2x1L	Glass	Semi-Volatiles (525.2)	Sulfite, HCl 0.5		18-08707 9/18/18	4-5	C	✓	
					3x40mL	Glass	TPH as Diesel (JP-8) (8015)				6-8	C	✓	
					125mL	Plastic	Lead (200.8)	HNO_3 pH<2			9	C	✓	
Trip Blank			8/28/2018		2x40mL	Glass	Volatiles	Ascorbic, HCl		18-08708	1-2	C	✓	

Sampling Information	Transportation Information		Unused Sample Disposition	Sample Condition
Location Sampled: Red Hill	**Transported/Stored in:** Cooler with ice	**Cooler Temp:** °C	[ ] Return to customer	[X] Received with CoC
Sampler(s): (Print names clearly) K. Miyaki	**Air bill/Carrier ID#:**		[X] Dispose at 60 Days	[ ] Received with Custody Seals
			[ ] Archive for _____ Days	[ ] Seals Required [ ] Seals Intact
			[ ] Contact before disposal	[X] Labels and CoC agree

Remarks: Any EPA approved drinking water method for organic chemicals, 40 CFR 141.24, may be used.
Laboratory must certified by the Hawaii State DOH Drinking Water Program.

Relinquished By: (Print clearly & Sign)	Date	Time	Received By: (Print clearly & Sign)	Date	Time
K. Miyaki	9/18/18	1310		9/18/18	1310

PH-NAVFAC HI 6280/5 (Rev. 04-05)