Joint Base Pearl Harbor Hickam
March 2022 Results

Test Method	Analyte	CAS No.	NPDES Permit Requirement	NPDES Effluent Limit (Freshwater)	DWDSRP Action Level	Units	Trip Blank	NPDES Effluent Grab	Influent Grab	NPDES Effluent Composite	NPDES Effluent Composite (DUP)
Location							Red Hill Shaft	Red Hill Shaft	Red Hill Shaft	Red Hill Shaft	Red Hill Shaft
Receiving Water Body							–	Halawa Stream	Halawa Stream	Halawa Stream	Halawa Stream
Field Observations							–	No odor, no sheen, clear water observed.	No odor, no sheen, clear water observed.	No odor, no sheen, clear water observed.	No odor, no sheen, clear water observed.
Sample ID							RHS-FB-TRAIN-03-030122-N	RHS-EF-TRAIN-03-030122-N	RHS-IF-TRAIN-03-030122-N	RHS-EF-TRAIN-02-030722-N; RHS-EF-TRAIN-02-030922-N (renewal); RHS-EF-TRAIN-02-031122-N (renewal)	RHS-EF-TRAIN-02-030722-(01)-N; RHS-EF-TRAIN-02-030922-(01)-N (renewal); RHS-EF-TRAIN-02-031122-(01)-N (renewal)
Sample Date							3/1/22	3/1/22	3/1/22	3/7/22 to 3/11/22	3/7/22 to 3/11/22
Sample Time							10:30	10:35	11:20	3:15 to 23:45	3:15 to 23:45
Type							Trip Blank	Normal	Normal	Normal	FD
Lab							Eurofins Seattle	Weck + Eurofins	Weck + Eurofins	BioAquatics	BioAquatics
SDG							110893-1	110893-1,2, 2C02016	110893-1, 2C02016	82499	82501
							Result	Result	Result	Result	Result
8260	TPH-g (C6-C12)	Gas	X	Report	500	µg/L	31 U	31 U	31 U	–	–
8015	TPH-d (C9-C25)	Diesel	X	Report	500	µg/L	–	91 U	92 U	–	–
8015	TPH-o (C24-C40)	Oil		–	500	µg/L	–	180 U	180 U	–	–
–	Total TPH[3]	–		–	500	µg/L	–	180 U	180 U	–	–
8260	Benzene	71-43-2	X	1800	71	µg/L	0.24 U	0.24 U	0.24 U	–	–
8260	Ethylbenzene	100-41-4	X	11000	7.3	µg/L	0.5 U	0.5 U	0.5 U	–	–
8260	Toluene	108-88-3	X	5800	9.8	µg/L	0.39 U	0.39 U	0.39 U	–	–
8260	m,p-Xylene	179601-23-1		–	–	µg/L	0.53 U	0.53 U	0.53 U	–	–
8260	o-Xylene	95-47-6		–	–	µg/L	0.39 U	0.39 U	0.39 U	–	–
8260	Xylenes, Total[4]	1330-20-7	X	Report	13	µg/L	0.53 U	0.53 U	0.53 U	–	–
6010	Total lead	7439-92-1	X	29	–	µg/L	–	**8.1 J**	–	–	–
939M	Organic lead[1]	78-00-2/ 75-74-1	X	Report	–	µg/L	–	0.81 U	–	–	–
EPA 821 / R-02-013	Whole effluent toxicity	–	X	Pass[2]	–	–	–	–	–	Pass	Pass
–	Residual chlorine	7782-50-5		–	–	mg/L	–	–	–	<0.1	<0.1
8270	1-methylnaphthalene	90-12-0		–	2.1	µg/L	–	0.019 U	–	–	–
8270	2-methylnaphthalene	91-57-6		–	4.7	µg/L	–	0.039 U	–	–	–
8270	Naphthalene	91-20-3		–	12	µg/L	–	0.031 U	–	–	–
1666	2-(2-Methoxyethoxy)ethanol	111-77-3		–	–	µg/L	–	43 U	43 U		
Field	Flow	–	X	Report	–	gal/ day	–	1658592	4515840	–	–
Field	pH	–	X	5.5-8.0	–	std unit	–	7.8	7.68	–	–
Field	Temperature	–		–	Report	degC	–	16.8	19.1	–	–
Field	Conductivity	–		–	Report	µS/cm	–	596	609	–	–
Field	Turbidity	–		–	Report	NTU	–	0.58	0.29	–	–

Test Method	Analyte	Trip Blank	NPDES Effluent Grab	NPDES Effluent Grab	Influent Grab	Influent Grab	Trip Blank	NPDES Effluent Grab
Location		Red Hill Shaft	Red Hill Shaft	Red Hill Shaft	Red Hill Shaft	Red Hill Shaft	Red Hill Shaft	Red Hill Shaft
Receiving Water Body		–	Halawa Stream	Halawa Stream	Halawa Stream	Halawa Stream	–	Halawa Stream
Field Observations		–	No odor, no sheen, clear water observed.	No odor, no sheen, clear water observed.	No odor, no sheen, clear water observed.	No odor, no sheen, clear water observed.	–	No odor, no sheen, clear water observed.
Sample ID		RHS-FB-TRAIN-01-030922-N	RHS-EF-TRAIN-01-030922-N	RHS-EF-TRAIN-01-030922-(01)-N	RHS-IF-TRAIN-01-030922-N	RHS-IF-TRAIN-01-030922-(01)-N	RHS-FB-TRAIN-02-031622-N	RHS-EF-TRAIN-02-031622-N
Sample Date		3/9/22	3/9/22	3/9/22	3/9/22	3/9/22	3/16/22	3/16/22
Sample Time		9:25	9:30	9:30	10:30	10:30	8:30	9:05
Type		Trip Blank	Normal	FD	Normal	FD	Trip Blank	Normal
Lab		Eurofins	Weck + Eurofins	Weck + Eurofins	Weck + Eurofins	Weck + Eurofins	Eurofins	Weck + Eurofins
SDG		111284-1	111284-1,2, 2C11029	111284-2, 2C11029	111284-1, 2C11029	111284-1, 2C11029	111522-1	111-522-1, 2C17030
		Result	Result	Result	Result	Result	Result	Result
8260	TPH-g (C6-C12)	31 U *+	31 U *+	31 U *+	31 U *+	31 U *+	31 U	31 U
8015	TPH-d (C9-C25)	–	91 U	91 U	**110**	95 U	–	92 U H
8015	TPH-o (C24-C40)	–	180 U	180 U	180 U	190 U	–	180 U
–	Total TPH[3]	–	180 U	180 U	**110**	190 U	–	180 U
8260	Benzene	0.24 U *+	0.24 U *+	0.24 U *+	0.24 U *+	0.24 U *+	0.24 U	0.24 U
8260	Ethylbenzene	0.5 U *+	0.5 U *+	0.5 U *+	0.5 U *+	0.5 U *+	0.5 U	0.5 U
8260	Toluene	0.39 U *+ *1	0.39 U *+ *1	0.39 U *+ *1	0.39 U *+ *1	0.39 U *+ *1	0.39 U	0.39 U
8260	m,p-Xylene	0.53 U *+	0.53 U *+	0.53 U *+	0.53 U *+	0.53 U *+	0.53 U	0.53 U
8260	o-Xylene	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
8260	Xylenes, Total[4]	0.53 U *+	0.53 U *+	0.53 U *+	0.53 U *+	0.53 U *+	0.53 U	0.53 U
6010	Total lead	–	**2.9 J**	**2.7 J**	–	–	–	**8.7 J**
939M	Organic lead[1]	–	0.81 U	0.81 U	–	–	–	0.81 U
EPA 821 / R-02-013	Whole effluent toxicity	–	–	–	–	–	–	–
–	Residual chlorine	–	–	–	–	–	–	–
8270	1-methylnaphthalene	–	0.019 U H	0.019 U H	–	–	–	0.019 U
8270	2-methylnaphthalene	–	0.04 U H	0.039 U H	–	–	–	0.039 U
8270	Naphthalene	–	0.032 U H	0.031 U H	–	–	–	0.031 U
1666	2-(2-Methoxyethoxy)ethanol	–	43 U	43 U	43 U	43 U	–	43 U
Field	Flow	–	1699200	1699200	4320000	4320000	–	1368000
Field	pH	–	7.42	7.42	7.55	7.55	–	7.50
Field	Temperature	–	21.6	21.6	18.6	18.6	–	21.6
Field	Conductivity	–	601	601	525	525	–	544
Field	Turbidity	–	0.3	0.3	1.02	1.02	–	0.15

Test Method	Analyte	Influent Grab	Trip Blank	NPDES Effluent Grab	Influent Grab	Trip Blank	NPDES Effluent Grab	Influent Grab
Location		Red Hill Shaft	Red Hill Shaft	Red Hill Shaft	Red Hill Shaft	Red Hill Shaft	Red Hill Shaft	Red Hill Shaft
Receiving Water Body		Halawa Stream	–	Halawa Stream	Halawa Stream	–	Halawa Stream	Halawa Stream
Field Observations		No odor, no sheen, clear water observed.	–	No odor, no sheen, clear water observed.	No odor, no sheen, clear water observed.	–	No odor, no sheen, clear water observed.	No odor, no sheen, clear water observed.
Sample ID		RHS-IF-TRAIN-02-031622-N	RHS-FB-TRAIN-03-032322-N	RHS-EF-TRAIN-03-032322-N	RHS-IF-TRAIN-03-032322-N	RHS-FB-TRAIN-01-033022-N	RHS-EF-TRAIN-01-033022-N	RHS-IF-TRAIN-03-033022-N
Sample Date		3/16/22	3/23/22	3/23/22	3/23/22	3/30/22	3/30/22	3/30/22
Sample Time		8:35	9:00	9:05	9:30	9:00	9:15	9:45
Type		Normal	Trip Blank	Normal	Normal	Trip Blank	Normal	Normal
Lab		Weck + Eurofins	Eurofins	Weck + Eurofins	Weck + Eurofins	Eurofins	Eurofins	Eurofins
SDG		111-522-1, 2C17030	111798-1	111798-1, 2C25047	111798-1, 2C25047	112028-1	112028-1	112028-2
		Result	Result	Result	Result	Result	Result	Result
8260	TPH-g (C6-C12)	31 U	31 U	31 U	31 U	31 U	31 U	31 U
8015	TPH-d (C9-C25)	**150 H**	–	92 U	91 U	–	91 U	93 U
8015	TPH-o (C24-C40)	180 U H	–	180 U	180 U	–	180 U	190 U
–	Total TPH[3]	**150 H**	–	180 U	180 U	–	180 U	190 U
8260	Benzene	0.24 U	0.24 U	0.24 U	0.24 U	**0.27 J B**	**0.27 J B**	**0.26 J B**
8260	Ethylbenzene	0.5 U	0.5 U	0.5 U	**0.5 J**	0.5 U	0.5 U	0.5 U
8260	Toluene	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
8260	m,p-Xylene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
8260	o-Xylene	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
8260	Xylenes, Total[4]	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
6010	Total lead	–	–	**4.8 J**	–	–	**7.6 J**	–
939M	Organic lead[1]	–	–	0.81 U	–	–	0.81 U	–
EPA 821 / R-02-013	Whole effluent toxicity	–	–	–	–	–	–	–
–	Residual chlorine	–	–	–	–	–	–	–
8270	1-methylnaphthalene	–	–	0.019 U	–	–	**0.079 J**	–
8270	2-methylnaphthalene	–	–	0.04 U	–	–	**0.14 J**	–
8270	Naphthalene	–	–	0.032 U	–	–	**0.062 J**	–
1666	2-(2-Methoxyethoxy)ethanol	43 U	–	43 U	43 U	–	–	–
Field	Flow	4104000	–	1418400	3960000	–	1382400	3960000
Field	pH	7.58	–	7.33	7.54	–	7.38	6.36
Field	Temperature	22.7	–	21.1	20.6	–	22.0	22.4
Field	Conductivity	556	–	552	591	–	631	602
Field	Turbidity	0.10	–	0.14	0.16	–	0.15	0.12

March 2022 NPDES DMR Summary[5]

Test Method	Analyte	NPDES Effluent Limit (Freshwater)	Units	Min	Average	Max
8260	TPH-g (C6-C12)	Report	mg/L	0.031 U	0.031 U	0.031 U
8015	TPH-d (C9-C25)	Report	mg/L	0.091 U	0.091 U	0.092 U
8015	TPH-o (C24-C40)					
–	Total TPH[3]					
8260	Benzene	1.8	mg/L	0.00024 U	0.00025 J	0.00027 J
8260	Ethylbenzene	11	mg/L	0.0005 U	0.0005 U	0.0005 U
8260	Toluene	5.8	mg/L	0.00039 U	0.00039 U	0.00039 U
8260	m,p-Xylene					
8260	o-Xylene					
8260	Xylenes, Total[4]	Report	mg/L	0.00053 U	0.00053 U	0.00053 U
6010	Total lead	0.029	mg/L	0.0029 J	0.0064 J	0.0087 J
939M	Organic lead[1]	Report	mg/L	0.00081 U	0.00081 U	0.00081 U
EPA 821 / R-02-013	Whole effluent toxicity	Pass[2]	–	Pass	Pass	Pass
–	Residual chlorine					
8270	1-methylnaphthalene					
8270	2-methylnaphthalene					
8270	Naphthalene					
1666	2-(2-Methoxyethoxy)ethanol					
Field	Flow	Report	gal/ day		4,171,968	4,515,840
Field	pH	5.5-8.0	std unit	7.33	7.49	7.80
Field	Temperature					
Field	Conductivity					
Field	Turbidity					

Blue highlighted cells = NPDES permit requirements

Notes:

1 - tetraethyl lead/tetramethyl lead
2 - Reported as "pass" or "fail" in accordance with HAR 11-55, Appendix D, Section 7.
3 - Total TPH is the manual calculation of the total detected concentrations of TPH-g, TPH-d, and TPH-o. If all values are non-detect, the total value is the highest limit of detection of TPH-g, TPH-d, and TPH-o.
4 - Total xylenes is the manual calculation of the total detected concentrations of m,p-Xylene and o-Xylene. If all values are non-detect, the total value is the highest limit of detection of m,p-Xylene and o-Xylene.
5 - The mg/L units in the DMR Summary reflect the effluent limitations specified in the NPDES permit. Average values were calculated using detected concentrations. For analytes in which all samples were non-detect, the average was calculated based on the limits of detection.
Bold text indicates indicates a detected concentration above the laboratory limit of detection.
Bold and italicized text indicates detection exceeds the NPDES permit limitation or the Drinking Water Distribution System Recovery Plan screening criteria.
— = not analyzed or not applicable
CAS = Chemical Abstracts Service
B = compound was found in the blank and sample
J = estimated value
U = nondetect value
*+ = LCS and/or LCSD is outside acceptance limits, high biased
*1 = LCS/LCSD RPD exceeds control limits
H = sample was prepped or analyzed beyond the specified hold time
µg/L = microgram per liter (same as parts per billion)
mg/L = milligram per liter
µS/cm = microsiemens per centimeter
NTU = nephelometric turbidity unit