UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 2
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
MULTIMEDIA PERMITS AND COMPLIANCE BRANCH

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM COMPLIANCE EVALUATION AND SAMPLING INSPECTION INDUSTRIAL FACILITY

FACILITY OWNER / OPERATOR

PORT HAMILTON REFINERY AND TRANSPORTATION, LLLP
1 Estate Hope, Christiansted, Virgin Islands 00820-5652
Telephone Number: (340) 643-2265

FACILITY

PETROLEUM REFINING & BULK FUELS STORAGE TERMINAL
1 Estate Hope, Christiansted, St. Croix, Virgin Islands Virgin Islands 00820
Coordinates: Latitude 17°42'53.24" N; Longitude 64°45'26.30" W

Statute: Sections 301(a) and 308(b) of the Clean Water Act

NPDES Regulations: 40 C.F.R. Parts 122, 124 and 419

TPDES ID Number: VIU005563

Inspection Dates: June 10 to 14, 2024

Key Participating Personnel:

Environmental Protection Agency:

Jim C. Casey, Senior Environmental Engineer
Clean Water Act Team

Molly Hillenbrand, Life Scientist
Monitoring Operations Section

Robert Morrell, Senior Geologist
Monitoring Operations Section

José A. Rivera, Lead Environmental Engineer
Clean Water Act Team

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Inspection Report Prepared by:

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D. On-Site and Off-Site Field Activities

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a. Reconnaissance on the Influent Waste Streams flow path (Jim, Bob in morning)
1. Tank#7418, Bundle Wash Bay, DGF Unit
2. Track waste stream into WWTP

b. Walkthrough of Sections/Industrial Activities (Industrial Process) (Jim)
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2. Walkthrough of Industrial Stormwater areas: (Jose)

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c. Sampling Activities (Bob)

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e. Sampling Activities (Bob)

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1. Sandblasting Operations, Spent Waste storage, Scrap Metal Opers
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3. Waste Management Area (Haz & Non-Haz Wastes)
4. Machine & Maintenance Shop

Thursday, June 13, 2024

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c. Action Items

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1. EXECUTIVE SUMMARY

2. PRE-INSPECTION ACTIVITIES

a. Announcement of Inspection (to PHRT)

b. Post-Announcement Discussions (EPA with PHRT)

3. PRE-FIELD ACTIVITIES

a. Credentials and Access Clearance (for site)

b. Safety Briefing (morning on Monday by OPT)

c. Entry Meeting & Escort Coordination (afternoon on Monday)

4. FIELD ACTIVITIES

a. Monday, June 10, 2024

1) Wastewater Treatment Plant

2) Sampling Points

3) Other Observations

b. Tuesday, June 11, 2024 (Sampling Team Activities)

1) Description of Areas Visited (afternoon)

2) Sampling Activities

The EPA Sampling Team began sampling operations on the morning of June11, 2024. An automatic composite sampler was set up at Outfall 401. The sampler was programmed to collect an aliquot of the wastewater every 15 minutes for 24 hours. The composite sample container was packed in ice. Temperature, total residual chlorine, pH, and conductivity were analyzed in the field and recorded in the field notebook. Three grab samples (Grab #1 through Grab #3) were collected from a tap on the discharge line for the analysis of Skinner List volatile organics. An additional grab sample (Grab #5) was collected for oil and grease. A manual grab composite sample for total phenolics and Skinner List non-volatile organics was also collected at Outfall 401 by collecting four aliquots during the 24-hour sampling period (three aliquots were collected on June 11).

At the Influent to the dissolved gas floatation (DGF) unit, a manual grab composite sample was collected by collecting four aliquots from a sample tap during the 24-hour sampling period (three aliquots were collected on June 11). The Influent DGF Grab Composite sample was analyzed for 5-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), total organic carbon (TOC), ammonia, chemical oxygen demand (COD), total phosphorus, sulfide (with undissociated hydrogen sulfide), Skinner List metals, total phenolics, Skinner List non-volatile organics, and MBAS (surfactants). Temperature, total residual chlorine, pH, and conductivity were analyzed in the field and recorded in the field notebook. Three grab samples (Grab #1 through Grab #3) were collected from the sample tap for the analysis of Skinner List volatile organics. An additional grab sample (Grab #5) was collected for oil and grease.

At Outfall 001, temperature, total residual chlorine, conductivity, pH, and dissolved oxygen were analyzed in the field and recorded in the field notebook.

3) Other Observations

c. Wednesday, June 12, 2024

1) Review of Records (morning)

2) Sampling Activities

The EPA sampling team continued sampling activities on the morning of June 12, 2024. Using a rod and bottle clamp, a grab sample was collected at Outfall 001. This sample was analyzed for oil and grease, sulfide (with undissociated hydrogen sulfide), Skinner List volatile organics, Skinner List non-volatile organics, Skinner List metals, total phosphorus, COD, total kjeldahl nitrogen (TKN), ammonia, TOC, MBAS (surfactants), BOD_5, TSS, and total phenolics.

At Outfall 401, the 24-hour composite sample was collected from the composite sample container. This sample was analyzed for BOD_5, TSS, TOC, ammonia, COD, total phosphorus, sulfide (with undissociated hydrogen sulfide), Skinner List metals, and MBAS (surfactants). Grab #4 was collected from a tap on the discharge line for the analysis of Skinner List volatile organics. The fourth aliquot for the manual grab composite was also collected at the tap on the discharge line for Outfall 401. The 24-hour flow reading was provided by a representative of Ocean Point Terminals.

At the Influent DGF location, the fourth aliquot for the manual grab composite sample was collected from the sample tap. Grab #4 was collected from the sample tap for the analysis of Skinner List volatile organics.

The four grab samples for volatile organics that were collected at each location were composited at the EPA Region 2 Laboratory. All sample containers, preservatives, and holding times were in accordance with U.S. EPA requirements specified in 40 CFR Part 136. All samples were placed in coolers with wet ice and shipped overnight to the U.S. EPA Region 2 Laboratory in Edison, New Jersey. Split samples were given to representatives of Ocean Point Terminals.

3) Description of Areas Visited (afternoon)

d. Thursday, June 13, 2024

1) Description of Areas Visited

2) Sampling Activities

The EPA sampling team continued sampling activities on the morning of June 13, 2024. Using a rod and bottle clamp, a grab sample was collected at the seawater intake for the reverse osmosis unit and fire water system. The intake sample was analyzed for BOD_5, TSS, TOC, ammonia, COD, total phosphorus, TKN, Skinner List metals, oil and grease, and MBAS (surfactants). All sample containers, preservatives, and holding times were in accordance with U.S. EPA requirements specified in 40 CFR Part 136. All sample containers were placed in a cooler with wet ice and shipped overnight to the U.S. EPA Region 2 Laboratory in Edison, New Jersey. Split samples were given to representatives of Ocean Point Terminals and Port Hamilton Refining and Transportation.

5. EXIT MEETING (MORNING)

a. General Brief of Inspection Activities

b. Areas of Concern and Observations

c. Action Items

d. Inspection Report

6. POST-INSPECTION ACTIVITIES

a. Electronic Mails

b. Post-Inspection Discussions

c. Review of Sample Results and Findings

Analytical results indicate that there were no exceedances of parameters for the expired TPDES permit with respect to Outfall 401 and Outfall 001 during the 24-hour sampling survey. Skinner List constituents (benzene, toluene, and ethylbenzene) were detected in the effluent for Outfall 401.

7. OTHERS

a. Equipment (cameras)

b. Photo Log

End of Report

Attachment 10(C) - Photo Album (RM)

Photo #1: Sample location for Outfall 401 where 24-hour composite sample was collected.

Photo #2: Sample tap for Outfall 401 where grab samples were collected.

Photo #3: Sample location for Influent DGF.

Photo #4: Outfall 001.

Photo #5: Seawater Intake.

Attachment 14 - Sampling Results for Influent, Outfall 401, Outfall 001, and Seawater Intake

Parameter	Influent – DGF	Outfall 401	Permit Limit Daily Max.	Outfall 001	Permit Limit Daily Max	Intake
Oil & Grease (mg/l)	12.2	ND	2130.7 lbs/day	ND	NISP	ND
Benzene (ug/l)	ND	2890	--	ND	--	--
Toluene (ug/l)	ND	3340	--	ND	--	--
Ethylbenzene (ug/l)	ND	1480	--	ND	--	--
Fluorene (ug/l)	8.31	ND	--	ND	--	--
Napthalene (ug/l)	95.5 L	ND	--	ND	--	--
Phenanthrene (ug/l)	16.6 L	ND	--	ND	--	--
2,4-Dimethylphenol (ug/l)	31.7 J	ND	--	ND	--	--
Phenol (ug/l)	163 L	ND	--	ND	--	--
Pyrene (ug/l)	ND	ND	--	ND	--	--
Antimony (ug/l)	ND	ND	--	ND	--	ND
Arsenic (ug/l)	ND	ND	--	ND	--	ND
Barium (ug/l)	ND	ND	--	ND	--	ND
Beryllium (ug/l)	ND	ND	--	ND	--	ND
Cadmium (ug/l)	ND	ND	--	ND	--	ND
Chromium (ug/l)	5.38	ND	64.52 lbs/day	ND	--	ND
Lead (ug/l)	ND	ND	--	ND	--	ND
Cobalt (ug/l)	ND	ND	--	ND	--	ND
Nickel (ug/l)	22.5	ND	--	ND	--	ND
Selenium (ug/l)	ND	ND	--	ND	--	ND
Silver (ug/l)	ND	ND	--	ND	--	ND
Vanadium (ug/l)	52.7	24.9	--	29.7	--	ND
Zinc (ug/l)	74.5	50.9	--	ND	--	ND
Mercury (ug/l)	0.349	0.151	--	ND	--	ND
Ammonia (mg/l)	7.16	ND	5582 lbs/day	0.154	--	ND J
TKN (mg/l)	--	--	--	ND	--	ND J
BOD_5 (mg/l)	69.3 J	12.2 J,L (15 lbs/day)	7091 lbs/day	2.08 J	--	ND J
COD (mg/l)	172	74	--	ND K	--	ND J
TOC (mg/l)	22.1	11.9 (14 lbs/day)	15601 lbs/day	4.37	--	2.05 J
Total Phenolics (ug/l)	1760	24.3 (0.03 lbs/day)	52.59 lbs/day	24.1	--	--
Phosphorus (mg/l)	0.306	0.167	--	ND	--	ND J
Sulfide (mg/l)	70.3	0.0206 (0.02 lbs/day)	46.22 lbs/day	0.0102 L	--	--
Hydrogen Sulfide, Unionized (mg/l)	3.16	0.00189	--	0.000936	--	--
MBAS (mg/l)	0.659 J	ND J	--	ND J	--	ND J
TSS (mg/l)	55.0	19 (23 lbs/day)	4929 lbs/day	16	--	ND J
Flow (g/day)	--	144,000	Monitor only	--	Monitor only	--
Temperature (°C)	34	33	--	36	38.83	--
Total Residual Chlorine (mg/l)	0.0	0.06	--	0.0	--	--
Conductivity (us/cm)	4548	10009	--	54705	--	--
pH (su)	6.96	8.37	6.0 – 9.0	8.34	6.7 – 8.5	--
Dissolved Oxygen (mg/l)	--	--	--	7.9	5.0 min.	--

NISP – No indication of substance present.
ND – Not detected.
K – The reported value may be biased high.
L – The reported value may be biased low.
J – Estimated value.

*Only those analytes which were detected at or above the reporting limit are listed in the above table. A complete list of analytes can be found in the attached laboratory report.

**Permit limits were obtained from expired TPDES Permit No. VI0000019.

Attachment 15 - EPA Region 2 Laboratory Final Report

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory
2890 Woodbridge Avenue
Edison , New Jersey 08837
732-906-6886 Phone
732-906-6165 Fax

July 08, 2024

Philip Cocuzza
Monitoring & Assessment Branch
LSASD/MAB
Edison, NJ 08837

RE: Port Hamilton Refining-Ocean Point Tml - 2406018

Enclosed are the results of analyses for samples received by the laboratory between 6/14/2024 and 6/19/2024. The signature below reflects the laboratory's approval of the reported results. If you have any questions concerning this report, please refer to Project Number 2406018 and contact the laboratory.

Sincerely,

John R. Bourbon
Chief, LSASD/LB

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Project Narrative:

The National Environmental Laboratory Accreditation Conference Institute (TNI) is a voluntary environmental laboratory accreditation association of State and Federal agencies. TNI established and promoted a National Environmental Laboratory Accreditation Program (NELAP) that provides a uniform set of standards for the generation of environmental data that are of known and defensible quality. The EPA Region 2 Laboratory is NELAP accredited. The Laboratory tests that are accredited have met all the requirements established under the TNI Standards.

Condition Comments

Biochemical Oxygen Demand (BOD) Analysis:- All samples were received past holding time. Samples were qualified with a "J" as an estimated value.

Biochemical Oxygen Demand (BOD) Analysis: Sample 2406018-15 exhibited toxicity toward the seed organisms used for BOD. This is demonstrated by increasing BOD values as sample dilution increases. Only the result for the largest sample dilution is being reported instead of the average of all acceptable dilutions; the average is used when the sample does not exhibit toxicity. Since an even higher sample dilution may have produced a higher BOD result, this sample was qualified with an “L” to indicate the result is biased low.

MBAS- All samples were received past holding times. All samples were qualified with a J" as an estimated value. Samples showed high chloride values which is a known interference. As per method requirement, samples were diluted prior to extraction and reporting limits were raised to reflect the dilutions.

Total Suspended Solids (TSS) Analysis: Sample 2406025-01 temperature upon receipt was outside acceptable range (18.4°C); sample was qualified with "J" as an estimated value.

Ammonia, Total Phosphorous, TKN, COD and TOC- Sample 2406025-01 was received outside the acceptable temperature range. The sample was qualified with a "J" as an estimated value.

Chemical Oxygen Demand- All samples showed high chloride values which is a known interference. As per method requirement, samples were diluted prior to digestion and reporting limits were raised to reflect the dilutions.

Comment(s):

The "Sample Analysis Date and Time" is included in the results section for any analyte with a prescribed holding time of 72 hours or less.

Data Qualifier(s):

U- The analyte was not detected at or above the Reporting Limit.
J- The identification of the analyte is acceptable; the reported value is an estimate.
K- The identification of the analyte is acceptable; the reported value may be biased high.
L- The identification of the analyte is acceptable; the reported value may be biased low.
NJ- There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate.

Reporting Limit(s):

The Laboratory was able to achieve the appropriate limit for each analyte requested.

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

SUMMARY REPORT FOR SAMPLES

Field ID	Laboratory ID	Matrix	Date Sampled	Date Received
Trip Blank	2406018-01	Aqueous	06/11/2024 11:05	06/14/2024 13:00
Outfall 401- Grab#5	2406018-06	Aqueous	06/11/2024 11:56	06/14/2024 13:00
Outfall 401-Grab#1-4(Lab Composite)	2406018-07	Aqueous	06/14/2024 00:01	06/14/2024 13:00
Influent-DGF-Grab#5	2406018-12	Aqueous	06/11/2024 13:02	06/14/2024 13:00
Influent-DGF-Grab Comp.DL	2406018-13	Aqueous	06/12/2024 11:42	06/14/2024 13:00
Outfall 401-Grab Comp.	2406018-14	Aqueous	06/12/2024 11:29	06/14/2024 13:00
Outfall 401-24Hr. Comp.	2406018-15	Aqueous	06/12/2024 10:40	06/14/2024 13:00
Outfall 001-Grab	2406018-16	Aqueous	06/12/2024 10:12	06/14/2024 13:00
Influent-DGF-Grab#1-4(Lab Composit	2406018-17	Aqueous	06/14/2024 00:01	06/14/2024 13:00
Intake	2406025-01	Aqueous	06/13/2024 11:20	06/19/2024 10:15

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 2 Laboratory

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

SUMMARY REPORT FOR METHODS

Analysis	Method	Certification	Matrix
624.1 VOA EPA-NPDES	EPA 624.1 SOP C-89 Rev 3.7	NELAP	Aqueous
625.1 SVOA NPDES	EPA 625.1 SOP C-90 Rev 3.9	NELAP	Aqueous
Ammonia [As N]	EPA 350.1 SOP C-80 Rev 2.8	NELAP	Aqueous
Biochemical Oxygen Demand	SM 5210B SOP C-21 Rev 2.8	NELAP	Aqueous
Chemical Oxygen Demand	EPA 410.4 SOP C-53 Rev 2.8	NELAP	Aqueous
Mercury	EPA 245.1 SOP C-110 Rev 2.8	NELAP	Aqueous
Metals ICP TAL NPDES/DW	EPA 200.7 SOP C-109 Rev 3.7	NELAP	Aqueous
Nitrogen, Total Kjeldahl	EPA 351.2 SOP C-40 Rev2.8	NELAP	Aqueous
Oil & Grease	EPA 1664A SOP C-126 Rev 1.7	NELAP	Aqueous
Organic Carbon	SM 5310 B SOP C-83 Rev 2.9	NELAP	Aqueous
Phenolics, Total	EPA 420.4 SOP C-29 Rev 2.8	NELAP	Aqueous
Phosphorus	EPA 365.1 SOP C-68 Rev 2.8	NELAP	Aqueous
Hydrogen Sulfide, Unionized	SM 4500 S2 D SOP C-115 Rev 2.8	NELAP	Aqueous
MBAS, calculated as LAS, mol wt 320	SM 5540C SOP C-61 Rev 2.8	NELAP	Aqueous
Residue, Non-Filterable	SM 2540D SOP C-33 Rev 3.8	NELAP	Aqueous

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Trip Blank				**Sample ID: 2406018-01**		
VOA GCMS						
Chloromethane	---	U	5.00	ug/L	B406075	
Vinyl Chloride	---	U	5.00	ug/L	B406075	
Bromomethane	---	U L	5.00	ug/L	B406075	
Chloroethane	---	U	5.00	ug/L	B406075	
Trichlorofluoromethane	---	U	5.00	ug/L	B406075	
1,1-Dichloroethene	---	U	5.00	ug/L	B406075	
Methylene Chloride	---	U	5.00	ug/L	B406075	
Acrylonitrile	---	U	5.00	ug/L	B406075	
trans-1,2-Dichloroethene	---	U	5.00	ug/L	B406075	
1,1-Dichloroethane	---	U	5.00	ug/L	B406075	
Chloroform	---	U	5.00	ug/L	B406075	
1,1,1-Trichloroethane	---	U	5.00	ug/L	B406075	
Carbon Tetrachloride	---	U	5.00	ug/L	B406075	
1,2-Dichloroethane	---	U	5.00	ug/L	B406075	
Benzene	---	U	5.00	ug/L	B406075	
Trichloroethene	---	U	5.00	ug/L	B406075	
1,2-Dichloropropane	---	U	5.00	ug/L	B406075	
Bromodichloromethane	---	U	5.00	ug/L	B406075	
cis-1,3-Dichloropropene	---	U	5.00	ug/L	B406075	
Toluene	---	U	5.00	ug/L	B406075	
trans-1,3-Dichloropropene	---	U	5.00	ug/L	B406075	
1,1,2-Trichloroethane	---	U	5.00	ug/L	B406075	
Tetrachloroethene	---	U	5.00	ug/L	B406075	
Dibromochloromethane	---	U	5.00	ug/L	B406075	
Chlorobenzene	---	U	5.00	ug/L	B406075	
Ethylbenzene	---	U	5.00	ug/L	B406075	
Bromoform	---	U	5.00	ug/L	B406075	
1,1,2,2-Tetrachloroethane	---	U	5.00	ug/L	B406075	
1,3-Dichlorobenzene	---	U	5.00	ug/L	B406075	

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Trip Blank			**Sample ID: 2406018-01**			
VOA GCMS						
1,4-Dichlorobenzene	---	U	5.00	ug/L	B406075	
1,2-Dichlorobenzene	---	U	5.00	ug/L	B406075	
Field ID: Outfall 401- Grab#5			**Sample ID: 2406018-06**			
GC						
Oil & Grease	---	U	5.68	mg/L	B407009	
Field ID: Outfall 401-Grab#1-4(Lab Composite)			**Sample ID: 2406018-07**			
VOA GCMS						
Chloromethane	---	U	5.00	ug/L	B406075	
Vinyl Chloride	---	U	5.00	ug/L	B406075	
Bromomethane	---	U L	5.00	ug/L	B406075	
Chloroethane	---	U	5.00	ug/L	B406075	
Trichlorofluoromethane	---	U	5.00	ug/L	B406075	
1,1-Dichloroethene	---	U	5.00	ug/L	B406075	
Methylene Chloride	---	U	5.00	ug/L	B406075	
Acrylonitrile	---	U	5.00	ug/L	B406075	
trans-1,2-Dichloroethene	---	U	5.00	ug/L	B406075	
1,1-Dichloroethane	---	U	5.00	ug/L	B406075	
Chloroform	---	U	5.00	ug/L	B406075	
1,1,1-Trichloroethane	---	U	5.00	ug/L	B406075	
Carbon Tetrachloride	---	U	5.00	ug/L	B406075	
1,2-Dichloroethane	---	U	5.00	ug/L	B406075	
Benzene	2890		500	ug/L	B406075	
Trichloroethene	---	U	5.00	ug/L	B406075	
1,2-Dichloropropane	---	U	5.00	ug/L	B406075	
Bromodichloromethane	---	U	5.00	ug/L	B406075	
cis-1,3-Dichloropropene	---	U	5.00	ug/L	B406075	
Toluene	3340		500	ug/L	B406075	
trans-1,3-Dichloropropene	---	U	5.00	ug/L	B406075	

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Outfall 401-Grab#1-4(Lab Composite)				**Sample ID: 2406018-07**		
VOA GCMS						
1,1,2-Trichloroethane	---	U	5.00	ug/L	B406075	
Tetrachloroethene	---	U	5.00	ug/L	B406075	
Dibromochloromethane	---	U	5.00	ug/L	B406075	
Chlorobenzene	---	U	5.00	ug/L	B406075	
Ethylbenzene	1480		500	ug/L	B406075	
Bromoform	---	U	5.00	ug/L	B406075	
1,1,2,2-Tetrachloroethane	---	U	5.00	ug/L	B406075	
1,3-Dichlorobenzene	---	U	5.00	ug/L	B406075	
1,4-Dichlorobenzene	---	U	5.00	ug/L	B406075	
1,2-Dichlorobenzene	---	U	5.00	ug/L	B406075	
Field ID: Influent-DGF-Grab#5				**Sample ID: 2406018-12**		
GC						
Oil & Grease	12.2		5.81	mg/L	B407009	
Field ID: Influent-DGF-Grab Comp.				**Sample ID: 2406018-13**		
NVOA GCMS						
Acenaphthene	---	U L	4.95	ug/L	B406074	
Acenaphthylene	---	U L	4.95	ug/L	B406074	
Anthracene	---	U	4.95	ug/L	B406074	
Benzo(A)Anthracene	---	U L	4.95	ug/L	B406074	
Benzo(A)Pyrene	---	U L	4.95	ug/L	B406074	
Benzo(B)Fluoranthene	---	U L	4.95	ug/L	B406074	
Benzo(G,H,I)Perylene	---	U L	4.95	ug/L	B406074	
Benzo(K)Fluoranthene	---	U L	4.95	ug/L	B406074	
Chrysene	---	U L	4.95	ug/L	B406074	
Dibenzo(A,H)Anthracene	---	U L	4.95	ug/L	B406074	
Fluoranthene	---	U	4.95	ug/L	B406074	
Fluorene	8.31		4.95	ug/L	B406074	
Indeno(1,2,3-Cd)Pyrene	---	U L	4.95	ug/L	B406074	

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Influent-DGF-Grab Comp.DL				**Sample ID: 2406018-13**		
NVOA GCMS						
Naphthalene	95.5	L	3.96	ug/L	B406074	
Phenanthrene	16.6	L	4.95	ug/L	B406074	
1,2,4-Trichlorobenzene	---	U L	4.95	ug/L	B406074	
2,4,6-Trichlorophenol	---	U L	4.95	ug/L	B406074	
2,4-Dichlorophenol	---	U L	4.95	ug/L	B406074	
2,4-Dimethylphenol	31.7	J	4.95	ug/L	B406074	
2,4-Dinitrotoluene	---	U	4.95	ug/L	B406074	
2,6-Dinitrotoluene	---	U L	4.95	ug/L	B406074	
2,4-Dinitrophenol	---	U L	29.7	ug/L	B406074	
2-Chloronaphthalene	---	U L	4.95	ug/L	B406074	
2-Chlorophenol	---	U L	4.95	ug/L	B406074	
2-Nitrophenol	---	U L	29.7	ug/L	B406074	
3,3'- Dichlorobenzidine	---	U J	4.95	ug/L	B406074	
4,6-Dinitro-2-Methylphenol	---	U L	29.7	ug/L	B406074	
4-Bromophenyl-Phenylether	---	U	4.95	ug/L	B406074	
4-Chloro-3-Methylphenol	---	U L	4.95	ug/L	B406074	
4-Chlorophenyl-Phenylether	---	U	4.95	ug/L	B406074	
4-Nitrophenol	---	U L	29.7	ug/L	B406074	
Bis(-2-Chloroethoxy)Methane	---	U L	4.95	ug/L	B406074	
Bis(2-Chloroethyl)Ether	---	U L	4.95	ug/L	B406074	
Bis(2-Chloroisopropyl)Ether	---	U L	4.95	ug/L	B406074	
Bis(2-Ethylhexyl)Phthalate	---	U L	4.95	ug/L	B406074	
Butylbenzylphthalate	---	U	4.95	ug/L	B406074	
Azobenzene	---	U	4.95	ug/L	B406074	
Diethylphthalate	---	U	4.95	ug/L	B406074	
Dimethyl Phthalate	---	U L	1.98	ug/L	B406074	
Di-N-Butyl Phthalate	---	U	4.95	ug/L	B406074	
Di-N-Octyl Phthalate	---	U L	4.95	ug/L	B406074	
Hexachlorobenzene	---	U	4.95	ug/L	B406074	

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Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Influent-DGF-Grab Comp.					**Sample ID: 2406018-13**	
NVOA GCMS						
Hexachlorobutadiene	---	U L	1.98	ug/L	B406074	
Hexachlorocyclopentadiene	---	U L	29.7	ug/L	B406074	
Hexachloroethane	---	U L	1.98	ug/L	B406074	
Isophorone	---	U L	4.95	ug/L	B406074	
Nitrobenzene	---	U L	4.95	ug/L	B406074	
N-Nitrosodimethylamine	---	U L	4.95	ug/L	B406074	
N-Nitroso-Di-N-Propylamine	---	U L	4.95	ug/L	B406074	
N-Nitrosodiphenylamine	---	U J	4.95	ug/L	B406074	
Pentachlorophenol	---	U L	29.7	ug/L	B406074	
Phenol	163	L	59.4	ug/L	B406074	
Pyrene	---	U	4.95	ug/L	B406074	
Metals ICP						
Antimony	---	U	20.0	ug/L	B406102	
Arsenic	---	U	8.00	ug/L	B406102	
Barium	---	U	100	ug/L	B406102	
Beryllium	---	U	3.00	ug/L	B406102	
Cadmium	---	U	3.00	ug/L	B406102	
Chromium	5.38		5.00	ug/L	B406102	
Cobalt	---	U	20.0	ug/L	B406102	
Lead	---	U	8.00	ug/L	B406102	
Nickel	22.5		20.0	ug/L	B406102	
Selenium	---	U	20.0	ug/L	B406102	
Silver	---	U	5.00	ug/L	B406102	
Vanadium	52.7		20.0	ug/L	B406102	
Zinc	74.5		20.0	ug/L	B406102	

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Influent-DGF-Grab Comp.			**Sample ID: 2406018-13**			
Mercury CVAA						
Mercury	0.349		0.050	ug/L	B406124	
Sanitary						
Ammonia [As N]	7.16		0.100	mg/L	B406103	
Biochemical Oxygen Demand	69.3	J	2.00	mg/L	B406071	06/19/2024 11:19
Chemical Oxygen Demand	172		40.0	mg/L	B407001	
Total Organic Carbon	22.1		2.00	mg/L	B406080	
Phenolics, Total	1760		200	ug/L	B406072	
Phosphorus	0.306		0.0500	mg/L	B406104	
Sulfide	70.3		1.00	mg/L	B406073	
Hydrogen Sulfide, Unionized	3.16			mg/L	B406073	
MBAS, calculated as LAS, mol wt 320	0.659	J	0.500	mg/L	B406070	06/14/2024 15:41
Total Suspended Solids	55.0		10.0	mg/L	B406093	
Field ID: Outfall 401-Grab Comp.			**Sample ID: 2406018-14**			
NVOA GCMS						
Acenaphthene	---	U L	5.00	ug/L	B406074	
Acenaphthylene	---	U L	5.00	ug/L	B406074	
Anthracene	---	U	5.00	ug/L	B406074	
Benzo(A)Anthracene	---	U L	5.00	ug/L	B406074	
Benzo(A)Pyrene	---	U L	5.00	ug/L	B406074	
Benzo(B)Fluoranthene	---	U L	5.00	ug/L	B406074	
Benzo(G,H,I)Perylene	---	U L	5.00	ug/L	B406074	
Benzo(K)Fluoranthene	---	U L	5.00	ug/L	B406074	
Chrysene	---	U L	5.00	ug/L	B406074	
Dibenzo(A,H)Anthracene	---	U L	5.00	ug/L	B406074	
Fluoranthene	---	U	5.00	ug/L	B406074	
Fluorene	---	U	5.00	ug/L	B406074	
Indeno(1,2,3-Cd)Pyrene	---	U L	5.00	ug/L	B406074	
Naphthalene	---	U L	2.00	ug/L	B406074	
Phenanthrene	---	U L	5.00	ug/L	B406074	

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Outfall 401-Grab Comp.				**Sample ID: 2406018-14**		
NVOA GCMS						
1,2,4-Trichlorobenzene	---	U L	5.00	ug/L	B406074	
2,4,6-Trichlorophenol	---	U L	5.00	ug/L	B406074	
2,4-Dichlorophenol	---	U L	5.00	ug/L	B406074	
2,4-Dimethylphenol	---	U J	5.00	ug/L	B406074	
2,4-Dinitrotoluene	---	U	5.00	ug/L	B406074	
2,6-Dinitrotoluene	---	U L	5.00	ug/L	B406074	
2,4-Dinitrophenol	---	U L	30.0	ug/L	B406074	
2-Chloronaphthalene	---	U L	5.00	ug/L	B406074	
2-Chlorophenol	---	U L	5.00	ug/L	B406074	
2-Nitrophenol	---	U L	30.0	ug/L	B406074	
3,3'- Dichlorobenzidine	---	U J	5.00	ug/L	B406074	
4,6-Dinitro-2-Methylphenol	---	U L	30.0	ug/L	B406074	
4-Bromophenyl-Phenylether	---	U	5.00	ug/L	B406074	
4-Chloro-3-Methylphenol	---	U L	5.00	ug/L	B406074	
4-Chlorophenyl-Phenylether	---	U	5.00	ug/L	B406074	
4-Nitrophenol	---	U L	30.0	ug/L	B406074	
Bis(-2-Chloroethoxy)Methane	---	U L	5.00	ug/L	B406074	
Bis(2-Chloroethyl)Ether	---	U L	5.00	ug/L	B406074	
Bis(2-Chloroisopropyl)Ether	---	U L	5.00	ug/L	B406074	
Bis(2-Ethylhexyl)Phthalate	---	U L	5.00	ug/L	B406074	
Butylbenzylphthalate	---	U	5.00	ug/L	B406074	
Azobenzene	---	U	5.00	ug/L	B406074	
Diethylphthalate	---	U	5.00	ug/L	B406074	
Dimethyl Phthalate	---	U L	2.00	ug/L	B406074	
Di-N-Butyl Phthalate	---	U	5.00	ug/L	B406074	
Di-N-Octyl Phthalate	---	U L	5.00	ug/L	B406074	
Hexachlorobenzene	---	U	5.00	ug/L	B406074	
Hexachlorobutadiene	---	U L	2.00	ug/L	B406074	
Hexachlorocyclopentadiene	---	U L	30.0	ug/L	B406074	

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Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Outfall 401-Grab Comp.				**Sample ID: 2406018-14**		
NVOA GCMS						
Hexachloroethane	---	U L	2.00	ug/L	B406074	
Isophorone	---	U L	5.00	ug/L	B406074	
Nitrobenzene	---	U L	5.00	ug/L	B406074	
N-Nitrosodimethylamine	---	U L	5.00	ug/L	B406074	
N-Nitroso-Di-N-Propylamine	---	U L	5.00	ug/L	B406074	
N-Nitrosodiphenylamine	---	U J	5.00	ug/L	B406074	
Pentachlorophenol	---	U L	30.0	ug/L	B406074	
Phenol	---	U L	30.0	ug/L	B406074	
Pyrene	---	U	5.00	ug/L	B406074	
Sanitary						
Phenolics, Total	24.3		20.0	ug/L	B406072	
Field ID: Outfall 401-24Hr. Comp.				**Sample ID: 2406018-15**		
Metals ICP						
Antimony	---	U	20.0	ug/L	B406102	
Arsenic	---	U	8.00	ug/L	B406102	
Barium	---	U	100	ug/L	B406102	
Beryllium	---	U	3.00	ug/L	B406102	
Cadmium	---	U	3.00	ug/L	B406102	
Chromium	---	U	5.00	ug/L	B406102	
Cobalt	---	U	20.0	ug/L	B406102	
Lead	---	U	8.00	ug/L	B406102	
Nickel	---	U	20.0	ug/L	B406102	
Selenium	---	U	20.0	ug/L	B406102	
Silver	---	U	5.00	ug/L	B406102	
Vanadium	24.9		20.0	ug/L	B406102	
Zinc	50.9		20.0	ug/L	B406102	
Mercury CVAA						
Mercury	0.151		0.050	ug/L	B406124	
Sanitary						

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Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Outfall 401-24Hr. Comp.			**Sample ID: 2406018-15**			
Sanitary						
Ammonia [As N]	---	U	0.100	mg/L	B406103	
Biochemical Oxygen Demand	12.2	J, L	2.00	mg/L	B406071	06/19/2024 11:19
Chemical Oxygen Demand	74.0		40.0	mg/L	B407001	
Total Organic Carbon	11.9		1.00	mg/L	B406080	
Phosphorus	0.167		0.0500	mg/L	B406104	
Sulfide	0.0206		0.0100	mg/L	B406073	
Hydrogen Sulfide, Unionized	0.00189			mg/L	B406073	
MBAS, calculated as LAS, mol wt 320	---	U J	0.500	mg/L	B406070	06/14/2024 15:41
Total Suspended Solids	19.0		10.0	mg/L	B406093	
Field ID: Outfall 001-Grab			**Sample ID: 2406018-16**			
VOA GCMS						
Chloromethane	---	U	5.00	ug/L	B406075	
Vinyl Chloride	---	U	5.00	ug/L	B406075	
Bromomethane	---	U L	5.00	ug/L	B406075	
Chloroethane	---	U	5.00	ug/L	B406075	
Trichlorofluoromethane	---	U	5.00	ug/L	B406075	
1,1-Dichloroethene	---	U	5.00	ug/L	B406075	
Methylene Chloride	---	U	5.00	ug/L	B406075	
Acrylonitrile	---	U	5.00	ug/L	B406075	
trans-1,2-Dichloroethene	---	U	5.00	ug/L	B406075	
1,1-Dichloroethane	---	U	5.00	ug/L	B406075	
Chloroform	---	U	5.00	ug/L	B406075	
1,1,1-Trichloroethane	---	U	5.00	ug/L	B406075	
Carbon Tetrachloride	---	U	5.00	ug/L	B406075	
1,2-Dichloroethane	---	U	5.00	ug/L	B406075	
Benzene	---	U	5.00	ug/L	B406075	
Trichloroethene	---	U	5.00	ug/L	B406075	
1,2-Dichloropropane	---	U	5.00	ug/L	B406075	
Bromodichloromethane	---	U	5.00	ug/L	B406075	

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Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Outfall 001-Grab			**Sample ID: 2406018-16**			
VOA GCMS						
cis-1,3-Dichloropropene	---	U	5.00	ug/L	B406075	
Toluene	---	U	5.00	ug/L	B406075	
trans-1,3-Dichloropropene	---	U	5.00	ug/L	B406075	
1,1,2-Trichloroethane	---	U	5.00	ug/L	B406075	
Tetrachloroethene	---	U	5.00	ug/L	B406075	
Dibromochloromethane	---	U	5.00	ug/L	B406075	
Chlorobenzene	---	U	5.00	ug/L	B406075	
Ethylbenzene	---	U	5.00	ug/L	B406075	
Bromoform	---	U	5.00	ug/L	B406075	
1,1,2,2-Tetrachloroethane	---	U	5.00	ug/L	B406075	
1,3-Dichlorobenzene	---	U	5.00	ug/L	B406075	
1,4-Dichlorobenzene	---	U	5.00	ug/L	B406075	
1,2-Dichlorobenzene	---	U	5.00	ug/L	B406075	
NVOA GCMS						
Acenaphthene	---	U	5.00	ug/L	B406074	
Acenaphthylene	---	U	5.00	ug/L	B406074	
Anthracene	---	U	5.00	ug/L	B406074	
Benzo(A)Anthracene	---	U	5.00	ug/L	B406074	
Benzo(A)Pyrene	---	U	5.00	ug/L	B406074	
Benzo(B)Fluoranthene	---	U	5.00	ug/L	B406074	
Benzo(G,H,I)Perylene	---	U	5.00	ug/L	B406074	
Benzo(K)Fluoranthene	---	U	5.00	ug/L	B406074	
Chrysene	---	U	5.00	ug/L	B406074	
Dibenzo(A,H)Anthracene	---	U	5.00	ug/L	B406074	
Fluoranthene	---	U	5.00	ug/L	B406074	
Fluorene	---	U	5.00	ug/L	B406074	
Indeno(1,2,3-Cd)Pyrene	---	U	5.00	ug/L	B406074	
Naphthalene	---	U	2.00	ug/L	B406074	
Phenanthrene	---	U	5.00	ug/L	B406074	

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Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Outfall 001-Grab			**Sample ID: 2406018-16**			
NVOA GCMS						
1,2,4-Trichlorobenzene	---	U	5.00	ug/L	B406074	
2,4,6-Trichlorophenol	---	U L	5.00	ug/L	B406074	
2,4-Dichlorophenol	---	U L	5.00	ug/L	B406074	
2,4-Dimethylphenol	---	U J	5.00	ug/L	B406074	
2,4-Dinitrotoluene	---	U	5.00	ug/L	B406074	
2,6-Dinitrotoluene	---	U	5.00	ug/L	B406074	
2,4-Dinitrophenol	---	U J	30.0	ug/L	B406074	
2-Chloronaphthalene	---	U	5.00	ug/L	B406074	
2-Chlorophenol	---	U L	5.00	ug/L	B406074	
2-Nitrophenol	---	U L	30.0	ug/L	B406074	
3,3'- Dichlorobenzidine	---	U J	5.00	ug/L	B406074	
4,6-Dinitro-2-Methylphenol	---	U L	30.0	ug/L	B406074	
4-Bromophenyl-Phenylether	---	U	5.00	ug/L	B406074	
4-Chloro-3-Methylphenol	---	U L	5.00	ug/L	B406074	
4-Chlorophenyl-Phenylether	---	U	5.00	ug/L	B406074	
4-Nitrophenol	---	U L	30.0	ug/L	B406074	
Bis(-2-Chloroethoxy)Methane	---	U	5.00	ug/L	B406074	
Bis(2-Chloroethyl)Ether	---	U	5.00	ug/L	B406074	
Bis(2-Chloroisopropyl)Ether	---	U	5.00	ug/L	B406074	
Bis(2-Ethylhexyl)Phthalate	---	U	5.00	ug/L	B406074	
Butylbenzylphthalate	---	U	5.00	ug/L	B406074	
Azobenzene	---	U	5.00	ug/L	B406074	
Diethylphthalate	---	U	5.00	ug/L	B406074	
Dimethyl Phthalate	---	U	2.00	ug/L	B406074	
Di-N-Butyl Phthalate	---	U	5.00	ug/L	B406074	
Di-N-Octyl Phthalate	---	U	5.00	ug/L	B406074	
Hexachlorobenzene	---	U	5.00	ug/L	B406074	
Hexachlorobutadiene	---	U	2.00	ug/L	B406074	
Hexachlorocyclopentadiene	---	U	30.0	ug/L	B406074	

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Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Outfall 001-Grab			**Sample ID: 2406018-16**			
NVOA GCMS						
Hexachloroethane	---	U	2.00	ug/L	B406074	
Isophorone	---	U	5.00	ug/L	B406074	
Nitrobenzene	---	U	5.00	ug/L	B406074	
N-Nitrosodimethylamine	---	U	5.00	ug/L	B406074	
N-Nitroso-Di-N-Propylamine	---	U	5.00	ug/L	B406074	
N-Nitrosodiphenylamine	---	U J	5.00	ug/L	B406074	
Pentachlorophenol	---	U L	30.0	ug/L	B406074	
Phenol	---	U L	30.0	ug/L	B406074	
Pyrene	---	U	5.00	ug/L	B406074	
GC						
Oil & Grease	---	U	5.81	mg/L	B407009	
Metals ICP						
Antimony	---	U	40.0	ug/L	B406102	
Arsenic	---	U	16.0	ug/L	B406102	
Barium	---	U	100	ug/L	B406102	
Beryllium	---	U	3.00	ug/L	B406102	
Cadmium	---	U	6.00	ug/L	B406102	
Chromium	---	U	10.0	ug/L	B406102	
Cobalt	---	U	40.0	ug/L	B406102	
Lead	---	U	16.0	ug/L	B406102	
Nickel	---	U	40.0	ug/L	B406102	
Selenium	---	U	40.0	ug/L	B406102	
Silver	---	U J	5.00	ug/L	B406102	
Vanadium	29.7		20.0	ug/L	B406102	
Zinc	---	U	40.0	ug/L	B406102	

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Outfall 001-Grab			**Sample ID: 2406018-16**			
Mercury CVAA						
Mercury	---	U	0.050	ug/L	B406124	
Sanitary						
Ammonia [As N]	0.154		0.100	mg/L	B406103	
Biochemical Oxygen Demand	2.08	J	2.00	mg/L	B406071	06/19/2024 11:19
Chemical Oxygen Demand	---	U K	200	mg/L	B407001	
Nitrogen, Total Kjeldahl	---	U	0.100	mg/L	B406116	
Total Organic Carbon	4.37		1.00	mg/L	B406080	
Phenolics, Total	24.1		20.0	ug/L	B406072	
Phosphorus	---	U	0.0500	mg/L	B406104	
Sulfide	0.0102	L	0.0100	mg/L	B406073	
Hydrogen Sulfide, Unionized	0.000936			mg/L	B406073	
MBAS, calculated as LAS, mol wt 320	---	U J	2.00	mg/L	B406070	06/14/2024 15:41
Total Suspended Solids	16.0		10.0	mg/L	B406093	
Field ID: Influent-DGF-Grab#1-4(Lab Composite)			**Sample ID: 2406018-17**			
VOA GCMS						
Chloromethane	---	U	5.00	ug/L	B406075	
Vinyl Chloride	---	U	5.00	ug/L	B406075	
Bromomethane	---	U L	5.00	ug/L	B406075	
Chloroethane	---	U	5.00	ug/L	B406075	
Trichlorofluoromethane	---	U	5.00	ug/L	B406075	
1,1-Dichloroethene	---	U	5.00	ug/L	B406075	
Methylene Chloride	---	U	5.00	ug/L	B406075	
Acrylonitrile	---	U	5.00	ug/L	B406075	
trans-1,2-Dichloroethene	---	U	5.00	ug/L	B406075	
1,1-Dichloroethane	---	U	5.00	ug/L	B406075	
Chloroform	---	U	5.00	ug/L	B406075	
1,1,1-Trichloroethane	---	U	5.00	ug/L	B406075	
Carbon Tetrachloride	---	U	5.00	ug/L	B406075	
1,2-Dichloroethane	---	U	5.00	ug/L	B406075	

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Influent-DGF-Grab#1-4(Lab Composite)				**Sample ID: 2406018-17**		
VOA GCMS						
Benzene	---	U	5.00	ug/L	B406075	
Trichloroethene	---	U	5.00	ug/L	B406075	
1,2-Dichloropropane	---	U	5.00	ug/L	B406075	
Bromodichloromethane	---	U	5.00	ug/L	B406075	
cis-1,3-Dichloropropene	---	U	5.00	ug/L	B406075	
Toluene	---	U	5.00	ug/L	B406075	
trans-1,3-Dichloropropene	---	U	5.00	ug/L	B406075	
1,1,2-Trichloroethane	---	U	5.00	ug/L	B406075	
Tetrachloroethene	---	U	5.00	ug/L	B406075	
Dibromochloromethane	---	U	5.00	ug/L	B406075	
Chlorobenzene	---	U	5.00	ug/L	B406075	
Ethylbenzene	---	U	5.00	ug/L	B406075	
Bromoform	---	U	5.00	ug/L	B406075	
1,1,2,2-Tetrachloroethane	---	U	5.00	ug/L	B406075	
1,3-Dichlorobenzene	---	U	5.00	ug/L	B406075	
1,4-Dichlorobenzene	---	U	5.00	ug/L	B406075	
1,2-Dichlorobenzene	---	U	5.00	ug/L	B406075	
Field ID: Intake				**Sample ID: 2406025-01**		
GC						
Oil & Grease	---	U	5.75	mg/L	B407009	
Metals ICP						
Antimony	---	U	40.0	ug/L	B406102	
Arsenic	---	U	16.0	ug/L	B406102	
Barium	---	U	100	ug/L	B406102	
Beryllium	---	U	3.00	ug/L	B406102	
Cadmium	---	U	6.00	ug/L	B406102	
Chromium	---	U	10.0	ug/L	B406102	
Cobalt	---	U	40.0	ug/L	B406102	
Lead	---	U	16.0	ug/L	B406102	

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Analyte	Result	Qualifier	Reporting Limit	Units	Batch	Date and Time of Analysis*
Field ID: Intake			**Sample ID: 2406025-01**			
Metals ICP						
Nickel	---	U	40.0	ug/L	B406102	
Selenium	---	U	40.0	ug/L	B406102	
Silver	---	U	5.00	ug/L	B406102	
Vanadium	---	U	20.0	ug/L	B406102	
Zinc	---	U	40.0	ug/L	B406102	
Mercury CVAA						
Mercury	---	U	0.050	ug/L	B406124	
Sanitary						
Ammonia [As N]	---	U J	0.100	mg/L	B406103	
Biochemical Oxygen Demand	---	U J	2.00	mg/L	B406095	06/24/2024 07:15
Chemical Oxygen Demand	---	U J	200	mg/L	B407001	
Nitrogen, Total Kjeldahl	---	U J	0.100	mg/L	B406116	
Total Organic Carbon	2.05	J	1.00	mg/L	B406117	
Phosphorus	---	U J	0.0500	mg/L	B406104	
MBAS, calculated as LAS, mol wt 320	---	U J	2.00	mg/L	B406096	06/19/2024 13:55
Total Suspended Solids	---	U J	10.0	mg/L	B406099	

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

VOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406075									
Blank (B406075-BLK1)									
Chloromethane	--- U	5.00	ug/L						
Vinyl Chloride	--- U	5.00	ug/L						
Bromomethane	--- U	5.00	ug/L						
Chloroethane	--- U	5.00	ug/L						
Trichlorofluoromethane	--- U	5.00	ug/L						
1,1-Dichloroethene	--- U	5.00	ug/L						
Methylene Chloride	--- U	5.00	ug/L						
Acrylonitrile	--- U	5.00	ug/L						
trans-1,2-Dichloroethene	--- U	5.00	ug/L						
1,1-Dichloroethane	--- U	5.00	ug/L						
Chloroform	--- U	5.00	ug/L						
1,1,1-Trichloroethane	--- U	5.00	ug/L						
Carbon Tetrachloride	--- U	5.00	ug/L						
1,2-Dichloroethane	--- U	5.00	ug/L						
Benzene	--- U	5.00	ug/L						
Trichloroethene	--- U	5.00	ug/L						
1,2-Dichloropropane	--- U	5.00	ug/L						
Bromodichloromethane	--- U	5.00	ug/L						
cis-1,3-Dichloropropene	--- U	5.00	ug/L						
Toluene	--- U	5.00	ug/L						
trans-1,3-Dichloropropene	--- U	5.00	ug/L						
1,1,2-Trichloroethane	--- U	5.00	ug/L						
Tetrachloroethene	--- U	5.00	ug/L						
Dibromochloromethane	--- U	5.00	ug/L						
Chlorobenzene	--- U	5.00	ug/L						
Ethylbenzene	--- U	5.00	ug/L						
Bromoform	--- U	5.00	ug/L						
1,1,2,2-Tetrachloroethane	--- U	5.00	ug/L						
1,3-Dichlorobenzene	--- U	5.00	ug/L						
1,4-Dichlorobenzene	--- U	5.00	ug/L						
1,2-Dichlorobenzene	--- U	5.00	ug/L						
Surrogate: 1,4-Difluorobenzene	*100*		ug/L	*100.0*		*100*	*60-140*		
Surrogate: 2-Bromo-1-Chloropropane	*97.5*		ug/L	*100.0*		*97.5*	*60-140*		
Surrogate: 1,4-Dichlorobutane	*104*		ug/L	*100.0*		*104*	*60-140*		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

VOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406075									
LCS (B406075-BS1)									
Chloromethane	60.7	5.00	ug/L	50.00		121	19-205		
Vinyl Chloride	50.0	5.00	ug/L	50.00		100	5-195		
Bromomethane	35.1	5.00	ug/L	50.00		70.1	15-185		
Chloroethane	50.9	5.00	ug/L	50.00		102	40-160		
Trichlorofluoromethane	55.0	5.00	ug/L	50.00		110	50-150		
1,1-Dichloroethene	42.6	5.00	ug/L	50.00		85.2	50-150		
Methylene Chloride	51.5	5.00	ug/L	50.00		103	60-140		
Acrylonitrile	56.1	5.00	ug/L	50.00		112	60-140		
trans-1,2-Dichloroethene	47.0	5.00	ug/L	50.00		94.0	70-130		
1,1-Dichloroethane	50.8	5.00	ug/L	50.00		102	70-130		
Chloroform	51.0	5.00	ug/L	50.00		102	70-135		
1,1,1-Trichloroethane	48.4	5.00	ug/L	50.00		96.9	70-130		
Carbon Tetrachloride	46.4	5.00	ug/L	50.00		92.8	70-130		
1,2-Dichloroethane	51.9	5.00	ug/L	50.00		104	70-130		
Benzene	51.9	5.00	ug/L	50.00		104	65-135		
Trichloroethene	50.7	5.00	ug/L	50.00		101	65-135		
1,2-Dichloropropane	54.2	5.00	ug/L	50.00		108	35-165		
Bromodichloromethane	50.0	5.00	ug/L	50.00		100	65-135		
cis-1,3-Dichloropropene	50.7	5.00	ug/L	50.00		101	25-175		
Toluene	52.4	5.00	ug/L	50.00		105	70-130		
trans-1,3-Dichloropropene	52.8	5.00	ug/L	50.00		106	50-150		
1,1,2-Trichloroethane	55.3	5.00	ug/L	50.00		111	70-130		
Tetrachloroethene	51.5	5.00	ug/L	50.00		103	70-130		
Dibromochloromethane	53.4	5.00	ug/L	50.00		107	70-135		
Chlorobenzene	53.2	5.00	ug/L	50.00		106	65-135		
Ethylbenzene	53.9	5.00	ug/L	50.00		108	60-140		
Bromoform	47.1	5.00	ug/L	50.00		94.1	70-130		
1,1,2,2-Tetrachloroethane	58.6	5.00	ug/L	50.00		117	60-140		
1,3-Dichlorobenzene	52.5	5.00	ug/L	50.00		105	70-130		
1,4-Dichlorobenzene	51.2	5.00	ug/L	50.00		102	65-135		
1,2-Dichlorobenzene	52.0	5.00	ug/L	50.00		104	65-135		
Surrogate: 1,4-Difluorobenzene	*99.9*		ug/L	*100.0*		*99.9*	*60-140*		
Surrogate: 2-Bromo-1-Chloropropane	*100*		ug/L	*100.0*		*100*	*60-140*		
Surrogate: 1,4-Dichlorobutane	*106*		ug/L	*100.0*		*106*	*60-140*		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

VOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406075									
LCS Dup (B406075-BSD1)									
Chloromethane	55.8	5.00	ug/L	50.00		112	19-205	8.52	20
Vinyl Chloride	44.5	5.00	ug/L	50.00		89.1	5-195	11.6	20
Bromomethane	35.0	5.00	ug/L	50.00		70.1	15-185	0.0285	20
Chloroethane	45.9	5.00	ug/L	50.00		91.8	40-160	10.4	20
Trichlorofluoromethane	50.2	5.00	ug/L	50.00		100	50-150	9.24	20
1,1-Dichloroethene	39.5	5.00	ug/L	50.00		79.0	50-150	7.55	20
Methylene Chloride	48.8	5.00	ug/L	50.00		97.5	60-140	5.46	20
Acrylonitrile	54.0	5.00	ug/L	50.00		108	60-140	3.69	20
trans-1,2-Dichloroethene	43.8	5.00	ug/L	50.00		87.6	70-130	7.05	20
1,1-Dichloroethane	46.9	5.00	ug/L	50.00		93.7	70-130	8.11	20
Chloroform	47.8	5.00	ug/L	50.00		95.6	70-135	6.40	20
1,1,1-Trichloroethane	45.2	5.00	ug/L	50.00		90.5	70-130	6.81	20
Carbon Tetrachloride	44.1	5.00	ug/L	50.00		88.2	70-130	5.04	20
1,2-Dichloroethane	49.7	5.00	ug/L	50.00		99.4	70-130	4.33	20
Benzene	49.1	5.00	ug/L	50.00		98.2	65-135	5.45	20
Trichloroethene	48.3	5.00	ug/L	50.00		96.7	65-135	4.71	20
1,2-Dichloropropane	51.3	5.00	ug/L	50.00		103	35-165	5.42	20
Bromodichloromethane	48.0	5.00	ug/L	50.00		95.9	65-135	4.23	20
cis-1,3-Dichloropropene	49.0	5.00	ug/L	50.00		98.0	25-175	3.51	20
Toluene	49.5	5.00	ug/L	50.00		99.0	70-130	5.75	20
trans-1,3-Dichloropropene	50.6	5.00	ug/L	50.00		101	50-150	4.30	20
1,1,2-Trichloroethane	53.2	5.00	ug/L	50.00		106	70-130	3.84	20
Tetrachloroethene	47.9	5.00	ug/L	50.00		95.8	70-130	7.24	20
Dibromochloromethane	51.2	5.00	ug/L	50.00		102	70-135	4.09	20
Chlorobenzene	51.2	5.00	ug/L	50.00		102	65-135	3.85	20
Ethylbenzene	51.1	5.00	ug/L	50.00		102	60-140	5.30	20
Bromoform	46.4	5.00	ug/L	50.00		92.8	70-130	1.37	20
1,1,2,2-Tetrachloroethane	57.7	5.00	ug/L	50.00		115	60-140	1.51	20
1,3-Dichlorobenzene	49.9	5.00	ug/L	50.00		99.8	70-130	5.12	20
1,4-Dichlorobenzene	49.7	5.00	ug/L	50.00		99.4	65-135	3.01	20
1,2-Dichlorobenzene	50.8	5.00	ug/L	50.00		102	65-135	2.43	20
Surrogate: 1,4-Difluorobenzene	*98.4*		ug/L	*100.0*		*98.4*	*60-140*		
Surrogate: 2-Bromo-1-Chloropropane	*101*		ug/L	*100.0*		*101*	*60-140*		
Surrogate: 1,4-Dichlorobutane	*107*		ug/L	*100.0*		*107*	*60-140*		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

VOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406075									
Matrix Spike (B406075-MS1)	**Source: 2406018-16**								
Chloromethane	56.8	5.00	ug/L	50.00	ND	114	19-273		
Vinyl Chloride	48.1	5.00	ug/L	50.00	ND	96.2	49-251		
Bromomethane	40.8	5.00	ug/L	50.00	ND	81.6	21-242		
Chloroethane	51.6	5.00	ug/L	50.00	ND	103	14-230		
Trichlorofluoromethane	48.6	5.00	ug/L	50.00	ND	97.3	17-181		
1,1-Dichloroethene	47.5	5.00	ug/L	50.00	ND	95.1	52-234		
Methylene Chloride	52.3	5.00	ug/L	50.00	ND	105	69-221		
Acrylonitrile	63.6	5.00	ug/L	50.00	ND	127	40-160		
trans-1,2-Dichloroethene	49.3	5.00	ug/L	50.00	ND	98.7	54-156		
1,1-Dichloroethane	50.0	5.00	ug/L	50.00	ND	100	59-155		
Chloroform	49.3	5.00	ug/L	50.00	ND	98.5	51-138		
1,1,1-Trichloroethane	47.4	5.00	ug/L	50.00	ND	94.9	52-162		
Carbon Tetrachloride	45.4	5.00	ug/L	50.00	ND	90.8	70-140		
1,2-Dichloroethane	50.2	5.00	ug/L	50.00	ND	100	49-155		
Benzene	53.8	5.00	ug/L	50.00	ND	108	37-151		
Trichloroethene	51.6	5.00	ug/L	50.00	ND	103	70-157		
1,2-Dichloropropane	53.6	5.00	ug/L	50.00	ND	107	74-210		
Bromodichloromethane	50.8	5.00	ug/L	50.00	ND	102	35-155		
cis-1,3-Dichloropropene	49.9	5.00	ug/L	50.00	ND	99.8	80-227		
Toluene	51.9	5.00	ug/L	50.00	ND	104	47-150		
trans-1,3-Dichloropropene	50.0	5.00	ug/L	50.00	ND	100	17-183		
1,1,2-Trichloroethane	55.0	5.00	ug/L	50.00	ND	110	52-150		
Tetrachloroethene	50.9	5.00	ug/L	50.00	ND	102	64-148		
Dibromochloromethane	50.8	5.00	ug/L	50.00	ND	102	53-149		
Chlorobenzene	51.0	5.00	ug/L	50.00	ND	102	37-160		
Ethylbenzene	52.1	5.00	ug/L	50.00	ND	104	37-162		
Bromoform	50.0	5.00	ug/L	50.00	ND	100	45-169		
1,1,2,2-Tetrachloroethane	59.9	5.00	ug/L	50.00	ND	120	46-157		
1,3-Dichlorobenzene	49.8	5.00	ug/L	50.00	ND	99.6	59-156		
1,4-Dichlorobenzene	49.8	5.00	ug/L	50.00	ND	99.6	18-190		
1,2-Dichlorobenzene	49.8	5.00	ug/L	50.00	ND	99.6	18-190		
Surrogate: 1,4-Difluorobenzene	*100*		ug/L	*100.0*		*100*	*60-140*		
Surrogate: 2-Bromo-1-Chloropropane	*103*		ug/L	*100.0*		*103*	*60-140*		
Surrogate: 1,4-Dichlorobutane	*112*		ug/L	*100.0*		*112*	*60-140*		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

VOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406075									
Matrix Spike Dup (B406075-MSD1)	**Source: 2406018-16**								
Chloromethane	55.6	5.00	ug/L	50.00	ND	111	19-273	2.24	28
Vinyl Chloride	46.0	5.00	ug/L	50.00	ND	92.1	49-251	4.42	28
Bromomethane	42.8	5.00	ug/L	50.00	ND	85.6	21-242	4.74	28
Chloroethane	48.0	5.00	ug/L	50.00	ND	96.0	14-230	7.31	28
Trichlorofluoromethane	49.4	5.00	ug/L	50.00	ND	98.9	17-181	1.59	28
1,1-Dichloroethene	47.4	5.00	ug/L	50.00	ND	94.9	52-234	0.189	28
Methylene Chloride	53.2	5.00	ug/L	50.00	ND	106	69-221	1.71	28
Acrylonitrile	65.4	5.00	ug/L	50.00	ND	131	40-160	2.78	28
trans-1,2-Dichloroethene	48.8	5.00	ug/L	50.00	ND	97.6	54-156	1.04	28
1,1-Dichloroethane	49.8	5.00	ug/L	50.00	ND	99.7	59-155	0.280	28
Chloroform	49.8	5.00	ug/L	50.00	ND	99.5	51-138	1.01	28
1,1,1-Trichloroethane	48.4	5.00	ug/L	50.00	ND	96.7	52-162	1.92	28
Carbon Tetrachloride	46.2	5.00	ug/L	50.00	ND	92.4	70-140	1.68	28
1,2-Dichloroethane	51.4	5.00	ug/L	50.00	ND	103	49-155	2.22	28
Benzene	51.4	5.00	ug/L	50.00	ND	103	37-151	4.54	28
Trichloroethene	50.2	5.00	ug/L	50.00	ND	100	70-157	2.75	28
1,2-Dichloropropane	51.0	5.00	ug/L	50.00	ND	102	74-210	4.99	28
Bromodichloromethane	50.3	5.00	ug/L	50.00	ND	101	35-155	1.03	28
cis-1,3-Dichloropropene	49.2	5.00	ug/L	50.00	ND	98.3	80-227	1.49	28
Toluene	49.7	5.00	ug/L	50.00	ND	99.5	47-150	4.31	28
trans-1,3-Dichloropropene	48.9	5.00	ug/L	50.00	ND	97.8	17-183	2.26	28
1,1,2-Trichloroethane	54.3	5.00	ug/L	50.00	ND	109	52-150	1.26	28
Tetrachloroethene	50.5	5.00	ug/L	50.00	ND	101	64-148	0.868	28
Dibromochloromethane	50.4	5.00	ug/L	50.00	ND	101	53-149	0.909	28
Chlorobenzene	50.9	5.00	ug/L	50.00	ND	102	37-160	0.294	28
Ethylbenzene	50.4	5.00	ug/L	50.00	ND	101	37-162	3.34	28
Bromoform	49.8	5.00	ug/L	50.00	ND	99.6	45-169	0.441	28
1,1,2,2-Tetrachloroethane	60.6	5.00	ug/L	50.00	ND	121	46-157	1.29	28
1,3-Dichlorobenzene	49.8	5.00	ug/L	50.00	ND	99.6	59-156	0.0201	28
1,4-Dichlorobenzene	49.7	5.00	ug/L	50.00	ND	99.3	18-190	0.261	28
1,2-Dichlorobenzene	49.8	5.00	ug/L	50.00	ND	99.5	18-190	0.0402	28
Surrogate: 1,4-Difluorobenzene	*99.1*		ug/L	*100.0*		*99.1*	*60-140*		
Surrogate: 2-Bromo-1-Chloropropane	*100*		ug/L	*100.0*		*100*	*60-140*		
Surrogate: 1,4-Dichlorobutane	*110*		ug/L	*100.0*		*110*	*60-140*		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406074									
Blank (B406074-BLK1)									
Acenaphthene	--- U	5.00	ug/L						
Acenaphthylene	--- U	5.00	ug/L						
Anthracene	--- U	5.00	ug/L						
Benzo(A)Anthracene	--- U	5.00	ug/L						
Benzo(A)Pyrene	--- U	5.00	ug/L						
Benzo(B)Fluoranthene	--- U	5.00	ug/L						
Benzo(G,H,I)Perylene	--- U	5.00	ug/L						
Benzo(K)Fluoranthene	--- U	5.00	ug/L						
Chrysene	--- U	5.00	ug/L						
Dibenzo(A,H)Anthracene	--- U	5.00	ug/L						
Fluoranthene	--- U	5.00	ug/L						
Fluorene	--- U	5.00	ug/L						
Indeno(1,2,3-Cd)Pyrene	--- U	5.00	ug/L						
Naphthalene	--- U	2.00	ug/L						
Phenanthrene	--- U	5.00	ug/L						
1,2,4-Trichlorobenzene	--- U	5.00	ug/L						
2,4,6-Trichlorophenol	--- U	5.00	ug/L						
2,4-Dichlorophenol	--- U	5.00	ug/L						
2,4-Dimethylphenol	--- U	5.00	ug/L						
2,4-Dinitrotoluene	--- U	5.00	ug/L						
2,6-Dinitrotoluene	--- U	5.00	ug/L						
2,4-Dinitrophenol	--- U	30.0	ug/L						
2-Chloronaphthalene	--- U	5.00	ug/L						
2-Chlorophenol	--- U	5.00	ug/L						
2-Nitrophenol	--- U	30.0	ug/L						
3,3'- Dichlorobenzidine	--- U	5.00	ug/L						
4,6-Dinitro-2-Methylphenol	--- U	30.0	ug/L						
4-Bromophenyl-Phenylether	--- U	5.00	ug/L						
4-Chloro-3-Methylphenol	--- U	5.00	ug/L						
4-Chlorophenyl-Phenylether	--- U	5.00	ug/L						
4-Nitrophenol	--- U	30.0	ug/L						
Bis(-2-Chloroethoxy)Methane	--- U	5.00	ug/L						
Bis(2-Chloroethyl)Ether	--- U	5.00	ug/L						
Bis(2-Chloroisopropyl)Ether	--- U	5.00	ug/L						
Bis(2-Ethylhexyl)Phthalate	--- U	5.00	ug/L						

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406074									
Blank (B406074-BLK1)									
Butylbenzylphthalate	--- U	5.00	ug/L						
Azobenzene	--- U	5.00	ug/L						
Diethylphthalate	--- U	5.00	ug/L						
Dimethyl Phthalate	--- U	2.00	ug/L						
Di-N-Butyl Phthalate	--- U	5.00	ug/L						
Di-N-Octyl Phthalate	--- U	5.00	ug/L						
Hexachlorobenzene	--- U	5.00	ug/L						
Hexachlorobutadiene	--- U	2.00	ug/L						
Hexachlorocyclopentadiene	--- U	30.0	ug/L						
Hexachloroethane	--- U	2.00	ug/L						
Isophorone	--- U	5.00	ug/L						
Nitrobenzene	--- U	5.00	ug/L						
N-Nitrosodimethylamine	--- U	5.00	ug/L						
N-Nitroso-Di-N-Propylamine	--- U	5.00	ug/L						
N-Nitrosodiphenylamine	--- U	5.00	ug/L						
Pentachlorophenol	--- U	30.0	ug/L						
Phenol	--- U	30.0	ug/L						
Pyrene	--- U	5.00	ug/L						
1,4-Dioxane	--- U	2.00	ug/L						
Surrogate: 2-Fluoroaniline	*38.8*		ug/L	*50.00*		*77.6*	*60-140*		
Surrogate: Phenol-D6	*ND*		ug/L	*50.00*		*34.3*	*60-140*		
Surrogate: Naphthalene-D8	*37.1*		ug/L	*50.00*		*74.3*	*60-140*		
Surrogate: 1-Fluoronaphthalene	*36.3*		ug/L	*50.00*		*72.6*	*60-140*		
Surrogate: 2,4-Dibromophenol	*34.7*		ug/L	*50.00*		*69.3*	*60-140*		
Surrogate: Anthracene-D10	*49.2*		ug/L	*50.00*		*98.4*	*60-140*		
Surrogate: Chrysene-D12	*41.4*		ug/L	*50.00*		*82.7*	*60-140*		
LCS (B406074-BS1)									
Acenaphthene	46.2	5.00	ug/L	50.00		92.4	47-145		
Acenaphthylene	43.4	5.00	ug/L	50.00		86.7	33-145		
Anthracene	44.3	5.00	ug/L	50.00		88.6	27-133		
Benzo(A)Anthracene	48.5	5.00	ug/L	50.00		97.1	33-143		
Benzo(A)Pyrene	48.2	5.00	ug/L	50.00		96.4	17-163		
Benzo(B)Fluoranthene	46.1	5.00	ug/L	50.00		92.1	24-159		
Benzo(G,H,I)Perylene	46.2	5.00	ug/L	50.00		92.4	35-219		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406074									
LCS (B406074-BS1)									
Benzo(K)Fluoranthene	46.4	5.00	ug/L	50.00		92.7	11-162		
Chrysene	46.3	5.00	ug/L	50.00		92.7	17-168		
Dibenzo(A,H)Anthracene	49.8	5.00	ug/L	50.00		99.6	33-227		
Fluoranthene	43.0	5.00	ug/L	50.00		86.0	26-137		
Fluorene	42.2	5.00	ug/L	50.00		84.4	59-121		
Indeno(1,2,3-Cd)Pyrene	49.0	5.00	ug/L	50.00		97.9	39-171		
Naphthalene	37.7	2.00	ug/L	50.00		75.3	21-133		
Phenanthrene	43.7	5.00	ug/L	50.00		87.4	54-120		
1,2,4-Trichlorobenzene	33.1	5.00	ug/L	50.00		66.2	44-142		
2,4,6-Trichlorophenol	45.0	5.00	ug/L	50.00		90.1	37-144		
2,4-Dichlorophenol	42.4	5.00	ug/L	50.00		84.7	39-135		
2,4-Dimethylphenol	20.7	5.00	ug/L	50.00		41.3	32-120		
2,4-Dinitrotoluene	46.3	5.00	ug/L	50.00		92.6	39-139		
2,6-Dinitrotoluene	48.5	5.00	ug/L	50.00		96.9	50-158		
2,4-Dinitrophenol	31.2	30.0	ug/L	50.00		62.4	21-191		
2-Chloronaphthalene	42.6	5.00	ug/L	50.00		85.2	60-120		
2-Chlorophenol	36.8	5.00	ug/L	50.00		73.5	23-134		
2-Nitrophenol	45.6	30.0	ug/L	50.00		91.2	29-182		
3,3'- Dichlorobenzidine	77.4	5.00	ug/L	50.00		155	38-262		
4,6-Dinitro-2-Methylphenol	48.0	30.0	ug/L	50.00		96.0	17-181		
4-Bromophenyl-Phenylether	44.0	5.00	ug/L	50.00		87.9	53-127		
4-Chloro-3-Methylphenol	42.5	5.00	ug/L	50.00		85.0	22-147		
4-Chlorophenyl-Phenylether	43.5	5.00	ug/L	50.00		86.9	25-158		
4-Nitrophenol	20.9	30.0	ug/L	50.00		41.8	9-132		
Bis(-2-Chloroethoxy)Methane	41.7	5.00	ug/L	50.00		83.3	33-184		
Bis(2-Chloroethyl)Ether	38.3	5.00	ug/L	50.00		76.6	12-158		
Bis(2-Chloroisopropyl)Ether	39.8	5.00	ug/L	50.00		79.6	36-166		
Bis(2-Ethylhexyl)Phthalate	50.2	5.00	ug/L	50.00		100	8-158		
Butylbenzylphthalate	44.9	5.00	ug/L	50.00		89.8	38-152		
Azobenzene	44.4	5.00	ug/L	50.00		88.9	60-115		
Diethylphthalate	43.4	5.00	ug/L	50.00		86.9	31-114		
Dimethyl Phthalate	43.8	2.00	ug/L	50.00		87.5	28-120		
Di-N-Butyl Phthalate	45.4	5.00	ug/L	50.00		90.8	1-120		
Di-N-Octyl Phthalate	50.0	5.00	ug/L	50.00		100	4-146		
Hexachlorobenzene	42.3	5.00	ug/L	50.00		84.6	35-152		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406074									
LCS (B406074-BS1)									
Hexachlorobutadiene	31.7	2.00	ug/L	50.00		63.4	24-120		
Hexachlorocyclopentadiene	39.5	30.0	ug/L	50.00		79.0	15-76		
Hexachloroethane	28.4	2.00	ug/L	50.00		56.8	40-120		
Isophorone	49.9	5.00	ug/L	50.00		99.9	21-196		
Nitrobenzene	41.0	5.00	ug/L	50.00		81.9	35-180		
N-Nitrosodimethylamine	25.0	5.00	ug/L	50.00		49.9	17-127		
N-Nitroso-Di-N-Propylamine	41.0	5.00	ug/L	50.00		82.0	43-230		
N-Nitrosodiphenylamine	73.7	5.00	ug/L	50.00		147	79-139		
Pentachlorophenol	35.6	30.0	ug/L	50.00		71.3	14-176		
Phenol	16.3	30.0	ug/L	50.00		32.6	5-120		
Pyrene	44.4	5.00	ug/L	50.00		88.7	52-120		
1,4-Dioxane	22.0	2.00	ug/L	50.00		43.9	7-106		
Surrogate: 2-Fluoroaniline	*41.9*		ug/L	*50.00*		*83.8*	*60-140*		
Surrogate: Phenol-D6	*15.7*		ug/L	*50.00*		*31.4*	*60-140*		
Surrogate: Naphthalene-D8	*42.5*		ug/L	*50.00*		*85.0*	*60-140*		
Surrogate: 1-Fluoronaphthalene	*41.8*		ug/L	*50.00*		*83.6*	*60-140*		
Surrogate: 2,4-Dibromophenol	*45.8*		ug/L	*50.00*		*91.7*	*60-140*		
Surrogate: Anthracene-D10	*52.9*		ug/L	*50.00*		*106*	*60-140*		
Surrogate: Chrysene-D12	*46.7*		ug/L	*50.00*		*93.4*	*60-140*		
LCS Dup (B406074-BSD1)									
Acenaphthene	39.7	5.00	ug/L	50.00		79.4	47-145	15.2	30
Acenaphthylene	37.8	5.00	ug/L	50.00		75.6	33-145	13.7	30
Anthracene	42.0	5.00	ug/L	50.00		84.1	27-133	5.26	30
Benzo(A)Anthracene	45.2	5.00	ug/L	50.00		90.5	33-143	7.02	30
Benzo(A)Pyrene	45.2	5.00	ug/L	50.00		90.5	17-163	6.36	30
Benzo(B)Fluoranthene	43.7	5.00	ug/L	50.00		87.3	24-159	5.35	30
Benzo(G,H,I)Perylene	43.5	5.00	ug/L	50.00		87.1	35-219	5.93	30
Benzo(K)Fluoranthene	43.7	5.00	ug/L	50.00		87.3	11-162	5.98	30
Chrysene	43.3	5.00	ug/L	50.00		86.6	17-168	6.81	30
Dibenzo(A,H)Anthracene	46.3	5.00	ug/L	50.00		92.6	33-227	7.29	30
Fluoranthene	40.8	5.00	ug/L	50.00		81.6	26-137	5.27	30
Fluorene	40.1	5.00	ug/L	50.00		80.2	59-121	5.05	30
Indeno(1,2,3-Cd)Pyrene	46.0	5.00	ug/L	50.00		92.1	39-171	6.11	30
Naphthalene	34.2	2.00	ug/L	50.00		68.5	21-133	9.54	30

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406074									
LCS Dup (B406074-BSD1)									
Phenanthrene	41.3	5.00	ug/L	50.00		82.6	54-120	5.63	30
1,2,4-Trichlorobenzene	29.8	5.00	ug/L	50.00		59.7	44-142	10.3	30
2,4,6-Trichlorophenol	40.8	5.00	ug/L	50.00		81.6	37-144	9.83	30
2,4-Dichlorophenol	39.3	5.00	ug/L	50.00		78.7	39-135	7.39	30
2,4-Dimethylphenol	13.4	5.00	ug/L	50.00		26.7	32-120	43.0	30
2,4-Dinitrotoluene	45.0	5.00	ug/L	50.00		90.1	39-139	2.74	30
2,6-Dinitrotoluene	42.5	5.00	ug/L	50.00		85.0	50-158	13.1	30
2,4-Dinitrophenol	29.1	30.0	ug/L	50.00		58.1	21-191	7.07	30
2-Chloronaphthalene	37.0	5.00	ug/L	50.00		73.9	60-120	14.1	30
2-Chlorophenol	37.4	5.00	ug/L	50.00		74.7	23-134	1.59	30
2-Nitrophenol	44.1	30.0	ug/L	50.00		88.2	29-182	3.32	30
3,3'- Dichlorobenzidine	67.6	5.00	ug/L	50.00		135	38-262	13.5	30
4,6-Dinitro-2-Methylphenol	48.8	30.0	ug/L	50.00		97.7	17-181	1.76	30
4-Bromophenyl-Phenylether	41.4	5.00	ug/L	50.00		82.7	53-127	6.10	30
4-Chloro-3-Methylphenol	38.2	5.00	ug/L	50.00		76.4	22-147	10.7	30
4-Chlorophenyl-Phenylether	41.0	5.00	ug/L	50.00		82.1	25-158	5.78	30
4-Nitrophenol	17.6	30.0	ug/L	50.00		35.3	9-132	16.9	30
Bis(-2-Chloroethoxy)Methane	39.9	5.00	ug/L	50.00		79.9	33-184	4.24	30
Bis(2-Chloroethyl)Ether	40.0	5.00	ug/L	50.00		80.0	12-158	4.27	30
Bis(2-Chloroisopropyl)Ether	37.2	5.00	ug/L	50.00		74.3	36-166	6.86	30
Bis(2-Ethylhexyl)Phthalate	46.8	5.00	ug/L	50.00		93.6	8-158	7.03	30
Butylbenzylphthalate	43.0	5.00	ug/L	50.00		86.0	38-152	4.32	30
Azobenzene	41.7	5.00	ug/L	50.00		83.4	60-115	6.34	30
Diethylphthalate	41.6	5.00	ug/L	50.00		83.2	31-114	4.35	30
Dimethyl Phthalate	38.4	2.00	ug/L	50.00		76.7	28-120	13.2	30
Di-N-Butyl Phthalate	43.0	5.00	ug/L	50.00		86.1	1-120	5.31	30
Di-N-Octyl Phthalate	46.7	5.00	ug/L	50.00		93.3	4-146	6.93	30
Hexachlorobenzene	39.8	5.00	ug/L	50.00		79.7	35-152	5.96	30
Hexachlorobutadiene	26.1	2.00	ug/L	50.00		52.1	24-120	19.6	30
Hexachlorocyclopentadiene	32.2	30.0	ug/L	50.00		64.5	15-76	20.2	30
Hexachloroethane	25.0	2.00	ug/L	50.00		50.0	40-120	12.7	30
Isophorone	46.9	5.00	ug/L	50.00		93.9	21-196	6.17	30
Nitrobenzene	39.2	5.00	ug/L	50.00		78.4	35-180	4.36	30
N-Nitrosodimethylamine	26.2	5.00	ug/L	50.00		52.3	17-127	4.69	30
N-Nitroso-Di-N-Propylamine	39.5	5.00	ug/L	50.00		79.1	43-230	3.60	30

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406074									
LCS Dup (B406074-BSD1)									
N-Nitrosodiphenylamine	70.0	5.00	ug/L	50.00		140	79-139	5.23	30
Pentachlorophenol	36.4	30.0	ug/L	50.00		72.8	14-176	2.17	30
Phenol	17.0	30.0	ug/L	50.00		34.1	5-120	4.38	30
Pyrene	41.9	5.00	ug/L	50.00		83.9	52-120	5.61	30
1,4-Dioxane	22.5	2.00	ug/L	50.00		45.0	7-106	2.43	30
Surrogate: 2-Fluoroaniline	*41.6*		ug/L	*50.00*		*83.3*	*60-140*		
Surrogate: Phenol-D6	*15.9*		ug/L	*50.00*		*31.9*	*60-140*		
Surrogate: Naphthalene-D8	*38.4*		ug/L	*50.00*		*76.8*	*60-140*		
Surrogate: 1-Fluoronaphthalene	*37.7*		ug/L	*50.00*		*75.3*	*60-140*		
Surrogate: 2,4-Dibromophenol	*39.1*		ug/L	*50.00*		*78.1*	*60-140*		
Surrogate: Anthracene-D10	*48.3*		ug/L	*50.00*		*96.6*	*60-140*		
Surrogate: Chrysene-D12	*42.2*		ug/L	*50.00*		*84.3*	*60-140*		
Matrix Spike (B406074-MS1)	**Source: 2406018-16**								
Acenaphthene	35.3	5.05	ug/L	50.51	ND	69.9	47-145		
Acenaphthylene	35.8	5.05	ug/L	50.51	ND	70.9	33-145		
Anthracene	38.9	5.05	ug/L	50.51	ND	77.1	27-133		
Benzo(A)Anthracene	41.0	5.05	ug/L	50.51	ND	81.2	33-143		
Benzo(A)Pyrene	40.5	5.05	ug/L	50.51	ND	80.3	17-163		
Benzo(B)Fluoranthene	40.2	5.05	ug/L	50.51	ND	79.5	24-159		
Benzo(G,H,I)Perylene	42.5	5.05	ug/L	50.51	ND	84.1	35-219		
Benzo(K)Fluoranthene	40.2	5.05	ug/L	50.51	ND	79.7	11-162		
Chrysene	40.2	5.05	ug/L	50.51	ND	79.6	17-168		
Dibenzo(A,H)Anthracene	45.1	5.05	ug/L	50.51	ND	89.2	33-227		
Fluoranthene	38.6	5.05	ug/L	50.51	ND	76.4	26-137		
Fluorene	38.2	5.05	ug/L	50.51	ND	75.6	59-121		
Indeno(1,2,3-Cd)Pyrene	48.2	5.05	ug/L	50.51	ND	95.4	39-171		
Naphthalene	35.4	2.02	ug/L	50.51	ND	70.1	21-133		
Phenanthrene	38.6	5.05	ug/L	50.51	ND	76.4	54-120		
1,2,4-Trichlorobenzene	35.1	5.05	ug/L	50.51	ND	69.4	44-142		
2,4,6-Trichlorophenol	30.8	5.05	ug/L	50.51	ND	61.0	37-144		
2,4-Dichlorophenol	32.5	5.05	ug/L	50.51	ND	64.3	39-135		
2,4-Dimethylphenol	31.1	5.05	ug/L	50.51	ND	61.6	32-120		
2,4-Dinitrotoluene	42.5	5.05	ug/L	50.51	ND	84.1	39-139		
2,6-Dinitrotoluene	37.2	5.05	ug/L	50.51	ND	73.7	50-158		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406074									
Matrix Spike (B406074-MS1)	**Source: 2406018-16**								
2,4-Dinitrophenol	19.3	30.3	ug/L	50.51	ND	38.2	21-191		
2-Chloronaphthalene	35.4	5.05	ug/L	50.51	ND	70.0	60-120		
2-Chlorophenol	29.9	5.05	ug/L	50.51	ND	59.3	23-134		
2-Nitrophenol	35.2	30.3	ug/L	50.51	ND	69.8	29-182		
3,3'- Dichlorobenzidine	30.4	5.05	ug/L	50.51	ND	60.1	38-262		
4,6-Dinitro-2-Methylphenol	35.3	30.3	ug/L	50.51	ND	69.9	17-181		
4-Bromophenyl-Phenylether	38.8	5.05	ug/L	50.51	ND	76.8	53-127		
4-Chloro-3-Methylphenol	35.5	5.05	ug/L	50.51	ND	70.3	22-147		
4-Chlorophenyl-Phenylether	38.2	5.05	ug/L	50.51	ND	75.5	25-158		
4-Nitrophenol	13.7	30.3	ug/L	50.51	ND	27.2	9-132		
Bis(-2-Chloroethoxy)Methane	36.7	5.05	ug/L	50.51	ND	72.7	33-184		
Bis(2-Chloroethyl)Ether	36.6	5.05	ug/L	50.51	ND	72.5	12-158		
Bis(2-Chloroisopropyl)Ether	36.1	5.05	ug/L	50.51	ND	71.5	36-166		
Bis(2-Ethylhexyl)Phthalate	45.6	5.05	ug/L	50.51	ND	90.3	8-158		
Butylbenzylphthalate	41.9	5.05	ug/L	50.51	ND	82.9	38-152		
Azobenzene	40.1	5.05	ug/L	50.51	ND	79.4	61-106		
Diethylphthalate	40.5	5.05	ug/L	50.51	ND	80.2	31-114		
Dimethyl Phthalate	36.6	2.02	ug/L	50.51	ND	72.4	28-120		
Di-N-Butyl Phthalate	41.5	5.05	ug/L	50.51	ND	82.3	1-120		
Di-N-Octyl Phthalate	45.6	5.05	ug/L	50.51	ND	90.3	4-146		
Hexachlorobenzene	38.0	5.05	ug/L	50.51	ND	75.2	35-152		
Hexachlorobutadiene	34.2	2.02	ug/L	50.51	ND	67.7	24-120		
Hexachlorocyclopentadiene	34.7	30.3	ug/L	50.51	ND	68.8	15-76		
Hexachloroethane	34.3	2.02	ug/L	50.51	ND	67.8	40-120		
Isophorone	35.4	5.05	ug/L	50.51	ND	70.2	21-196		
Nitrobenzene	36.8	5.05	ug/L	50.51	ND	72.9	35-180		
N-Nitrosodimethylamine	23.7	5.05	ug/L	50.51	ND	47.0	17-127		
N-Nitroso-Di-N-Propylamine	37.4	5.05	ug/L	50.51	ND	74.1	43-230		
N-Nitrosodiphenylamine	37.9	5.05	ug/L	50.51	ND	75.1	79-139		
Pentachlorophenol	26.8	30.3	ug/L	50.51	ND	53.0	14-176		
Phenol	17.9	30.3	ug/L	50.51	ND	35.5	5-120		
Pyrene	38.7	5.05	ug/L	50.51	ND	76.5	52-120		
1,4-Dioxane	19.9	2.02	ug/L	50.51	ND	39.3	7-106		
Surrogate: 2-Fluoroaniline	*41.6*		ug/L	*50.51*		*82.5*	*60-140*		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406074									
Matrix Spike (B406074-MS1)	**Source: 2406018-16**								
Surrogate: Phenol-D6	*18.0*		ug/L	*50.51*		*35.6*	*60-140*		
Surrogate: Naphthalene-D8	*37.5*		ug/L	*50.51*		*74.2*	*60-140*		
Surrogate: 1-Fluoronaphthalene	*36.9*		ug/L	*50.51*		*73.1*	*60-140*		
Surrogate: 2,4-Dibromophenol	*34.1*		ug/L	*50.51*		*67.6*	*60-140*		
Surrogate: Anthracene-D10	*49.1*		ug/L	*50.51*		*97.1*	*60-140*		
Surrogate: Chrysene-D12	*36.6*		ug/L	*50.51*		*72.4*	*60-140*		
Matrix Spike Dup (B406074-MSD1)	**Source: 2406018-16**								
Acenaphthene	32.5	5.15	ug/L	51.55	ND	63.0	47-145	8.26	24
Acenaphthylene	32.8	5.15	ug/L	51.55	ND	63.7	33-145	8.72	24
Anthracene	36.9	5.15	ug/L	51.55	ND	71.5	27-133	5.42	24
Benzo(A)Anthracene	39.0	5.15	ug/L	51.55	ND	75.7	33-143	4.90	24
Benzo(A)Pyrene	39.1	5.15	ug/L	51.55	ND	75.8	17-163	3.62	24
Benzo(B)Fluoranthene	39.0	5.15	ug/L	51.55	ND	75.7	24-159	2.91	24
Benzo(G,H,I)Perylene	43.5	5.15	ug/L	51.55	ND	84.3	35-219	2.35	24
Benzo(K)Fluoranthene	38.5	5.15	ug/L	51.55	ND	74.6	11-162	4.52	24
Chrysene	38.9	5.15	ug/L	51.55	ND	75.5	17-168	3.14	24
Dibenzo(A,H)Anthracene	46.1	5.15	ug/L	51.55	ND	89.5	33-227	2.38	24
Fluoranthene	36.8	5.15	ug/L	51.55	ND	71.5	26-137	4.67	24
Fluorene	37.1	5.15	ug/L	51.55	ND	72.0	59-121	2.78	24
Indeno(1,2,3-Cd)Pyrene	44.2	5.15	ug/L	51.55	ND	85.7	39-171	8.74	24
Naphthalene	35.2	2.06	ug/L	51.55	ND	68.4	21-133	0.386	24
Phenanthrene	37.1	5.15	ug/L	51.55	ND	72.0	54-120	4.00	24
1,2,4-Trichlorobenzene	34.5	5.15	ug/L	51.55	ND	67.0	44-142	1.51	24
2,4,6-Trichlorophenol	31.0	5.15	ug/L	51.55	ND	60.1	37-144	0.489	24
2,4-Dichlorophenol	33.3	5.15	ug/L	51.55	ND	64.6	39-135	2.38	24
2,4-Dimethylphenol	18.9	5.15	ug/L	51.55	ND	36.8	32-120	48.6	24
2,4-Dinitrotoluene	41.2	5.15	ug/L	51.55	ND	79.9	39-139	3.03	24
2,6-Dinitrotoluene	34.2	5.15	ug/L	51.55	ND	66.3	50-158	8.57	24
2,4-Dinitrophenol	26.6	30.9	ug/L	51.55	ND	51.6	21-191	32.0	24
2-Chloronaphthalene	33.1	5.15	ug/L	51.55	ND	64.2	60-120	6.57	24
2-Chlorophenol	31.2	5.15	ug/L	51.55	ND	60.5	23-134	4.01	24
2-Nitrophenol	37.2	30.9	ug/L	51.55	ND	72.1	29-182	5.34	24
3,3'- Dichlorobenzidine	26.7	5.15	ug/L	51.55	ND	51.8	38-262	12.8	24
4,6-Dinitro-2-Methylphenol	40.0	30.9	ug/L	51.55	ND	77.5	17-181	12.4	24

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

NVOA GCMS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406074									
Matrix Spike Dup (B406074-MSD1)	**Source: 2406018-16**								
4-Bromophenyl-Phenylether	37.2	5.15	ug/L	51.55	ND	72.1	53-127	4.27	24
4-Chloro-3-Methylphenol	33.0	5.15	ug/L	51.55	ND	64.1	22-147	7.22	24
4-Chlorophenyl-Phenylether	37.2	5.15	ug/L	51.55	ND	72.2	25-158	2.54	24
4-Nitrophenol	13.0	30.9	ug/L	51.55	ND	25.2	9-132	5.51	24
Bis(-2-Chloroethoxy)Methane	36.3	5.15	ug/L	51.55	ND	70.3	33-184	1.31	24
Bis(2-Chloroethyl)Ether	36.5	5.15	ug/L	51.55	ND	70.9	12-158	0.247	24
Bis(2-Chloroisopropyl)Ether	36.4	5.15	ug/L	51.55	ND	70.7	36-166	0.887	24
Bis(2-Ethylhexyl)Phthalate	44.4	5.15	ug/L	51.55	ND	86.2	8-158	2.61	24
Butylbenzylphthalate	40.2	5.15	ug/L	51.55	ND	78.0	38-152	4.08	24
Azobenzene	39.0	5.15	ug/L	51.55	ND	75.7	61-106	2.73	24
Diethylphthalate	39.2	5.15	ug/L	51.55	ND	76.1	31-114	3.21	24
Dimethyl Phthalate	33.4	2.06	ug/L	51.55	ND	64.7	28-120	9.22	24
Di-N-Butyl Phthalate	40.5	5.15	ug/L	51.55	ND	78.5	1-120	2.64	24
Di-N-Octyl Phthalate	44.2	5.15	ug/L	51.55	ND	85.7	4-146	3.23	24
Hexachlorobenzene	36.2	5.15	ug/L	51.55	ND	70.2	35-152	4.81	24
Hexachlorobutadiene	33.6	2.06	ug/L	51.55	ND	65.1	24-120	1.84	24
Hexachlorocyclopentadiene	32.4	30.9	ug/L	51.55	ND	62.9	15-76	6.83	24
Hexachloroethane	34.0	2.06	ug/L	51.55	ND	65.9	40-120	0.831	24
Isophorone	34.1	5.15	ug/L	51.55	ND	66.2	21-196	3.80	24
Nitrobenzene	36.1	5.15	ug/L	51.55	ND	70.1	35-180	1.96	24
N-Nitrosodimethylamine	24.8	5.15	ug/L	51.55	ND	48.1	17-127	4.48	24
N-Nitroso-Di-N-Propylamine	36.1	5.15	ug/L	51.55	ND	70.0	43-230	3.62	24
N-Nitrosodiphenylamine	36.8	5.15	ug/L	51.55	ND	71.5	79-139	2.95	24
Pentachlorophenol	29.7	30.9	ug/L	51.55	ND	57.6	14-176	10.4	24
Phenol	19.4	30.9	ug/L	51.55	ND	37.6	5-120	7.89	24
Pyrene	36.7	5.15	ug/L	51.55	ND	71.2	52-120	5.16	24
1,4-Dioxane	20.3	2.06	ug/L	51.55	ND	39.3	7-106	2.09	24
Surrogate: 2-Fluoroaniline	*40.6*		ug/L	*51.55*		*78.8*	*60-140*		
Surrogate: Phenol-D6	*18.0*		ug/L	*51.55*		*34.8*	*60-140*		
Surrogate: Naphthalene-D8	*36.1*		ug/L	*51.55*		*70.1*	*60-140*		
Surrogate: 1-Fluoronaphthalene	*36.2*		ug/L	*51.55*		*70.3*	*60-140*		
Surrogate: 2,4-Dibromophenol	*32.4*		ug/L	*51.55*		*62.8*	*60-140*		
Surrogate: Anthracene-D10	*46.6*		ug/L	*51.55*		*90.3*	*60-140*		
Surrogate: Chrysene-D12	*37.2*		ug/L	*51.55*		*72.1*	*60-140*		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

GC - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B407009									
Blank (B407009-BLK1)									
Oil & Grease	--- U	5.00	mg/L						
LCS (B407009-BS1)									
Oil & Grease	35.7	5.00	mg/L	40.00		89.2	78-114		
LCS Dup (B407009-BSD1)									
Oil & Grease	37.6	5.00	mg/L	40.00		94.0	78-114	5.18	20
Matrix Spike (B407009-MS1)	**Source: 2406018-16**								
Oil & Grease	42.8	5.68	mg/L	45.45	ND	94.2	78-114		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Metals ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406102									
Blank (B406102-BLK1)									
Antimony	--- U	20.0	ug/L						
Arsenic	--- U	8.00	ug/L						
Barium	--- U	100	ug/L						
Beryllium	--- U	3.00	ug/L						
Cadmium	--- U	3.00	ug/L						
Chromium	--- U	5.00	ug/L						
Cobalt	--- U	20.0	ug/L						
Lead	--- U	8.00	ug/L						
Nickel	--- U	20.0	ug/L						
Selenium	--- U	20.0	ug/L						
Silver	--- U	5.00	ug/L						
Vanadium	--- U	20.0	ug/L						
Zinc	--- U	20.0	ug/L						
LCS (B406102-BS1)									
Antimony	198	20.0	ug/L	200.0		98.8	85-115		
Arsenic	198	8.00	ug/L	200.0		99.2	85-115		
Barium	205	100	ug/L	200.0		102	85-115		
Beryllium	200	3.00	ug/L	200.0		99.9	85-115		
Cadmium	200	3.00	ug/L	200.0		99.8	85-115		
Chromium	201	5.00	ug/L	200.0		101	85-115		
Cobalt	204	20.0	ug/L	200.0		102	85-115		
Lead	201	8.00	ug/L	200.0		100	85-115		
Nickel	200	20.0	ug/L	200.0		100	85-115		
Selenium	194	20.0	ug/L	200.0		97.1	85-115		
Silver	201	5.00	ug/L	200.0		101	85-115		
Vanadium	205	20.0	ug/L	200.0		102	85-115		
Zinc	201	20.0	ug/L	200.0		101	85-115		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Metals ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406102									
LCS Dup (B406102-BSD1)									
Antimony	206	20.0	ug/L	200.0		103	85-115	4.20	20
Arsenic	203	8.00	ug/L	200.0		102	85-115	2.34	20
Barium	210	100	ug/L	200.0		105	85-115	2.56	20
Beryllium	205	3.00	ug/L	200.0		103	85-115	2.73	20
Cadmium	207	3.00	ug/L	200.0		104	85-115	3.81	20
Chromium	209	5.00	ug/L	200.0		104	85-115	3.63	20
Cobalt	211	20.0	ug/L	200.0		106	85-115	3.52	20
Lead	210	8.00	ug/L	200.0		105	85-115	4.23	20
Nickel	207	20.0	ug/L	200.0		104	85-115	3.48	20
Selenium	203	20.0	ug/L	200.0		101	85-115	4.19	20
Silver	208	5.00	ug/L	200.0		104	85-115	3.58	20
Vanadium	212	20.0	ug/L	200.0		106	85-115	3.55	20
Zinc	209	20.0	ug/L	200.0		104	85-115	3.77	20
Matrix Spike (B406102-MS1)	**Source: 2406018-16**								
Antimony	242	40.0	ug/L	200.0	ND	121	80-120		
Arsenic	239	16.0	ug/L	200.0	ND	119	80-120		
Barium	253	100	ug/L	200.0	33.9	110	80-120		
Beryllium	186	3.00	ug/L	200.0	ND	93.0	80-120		
Cadmium	185	6.00	ug/L	200.0	ND	92.6	80-120		
Chromium	208	10.0	ug/L	200.0	ND	104	80-120		
Cobalt	199	40.0	ug/L	200.0	ND	99.5	80-120		
Lead	192	16.0	ug/L	200.0	ND	95.9	80-120		
Nickel	202	40.0	ug/L	200.0	11.7	95.2	80-120		
Selenium	232	40.0	ug/L	200.0	ND	116	80-120		
Silver	277	5.00	ug/L	200.0	1.61	138	80-120		
Vanadium	235	20.0	ug/L	200.0	29.7	102	80-120		
Zinc	187	40.0	ug/L	200.0	8.38	89.5	80-120		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Metals ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406102									
Matrix Spike Dup (B406102-MSD1)	**Source: 2406018-16**								
Antimony	227	100	ug/L	200.0	ND	114	80-120	6.39	10
Arsenic	234	40.0	ug/L	200.0	ND	117	80-120	1.80	10
Barium	243	500	ug/L	200.0	33.9	105	80-120	3.92	10
Beryllium	202	15.0	ug/L	200.0	ND	101	80-120	8.26	10
Cadmium	197	15.0	ug/L	200.0	ND	98.4	80-120	6.01	10
Chromium	207	25.0	ug/L	200.0	ND	104	80-120	0.472	10
Cobalt	206	100	ug/L	200.0	ND	103	80-120	3.58	10
Lead	198	40.0	ug/L	200.0	ND	98.9	80-120	3.08	10
Nickel	219	100	ug/L	200.0	ND	110	80-120	8.18	10
Selenium	217	100	ug/L	200.0	ND	108	80-120	6.56	10
Silver	237	25.0	ug/L	200.0	ND	119	80-120	15.4	10
Vanadium	251	100	ug/L	200.0	29.7	111	80-120	6.70	10
Zinc	203	100	ug/L	200.0	ND	102	80-120	8.04	10

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Mercury CVAA - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406124									
Blank (B406124-BLK1)									
Mercury	--- U	0.050	ug/L						
LCS (B406124-BS1)									
Mercury	0.940	0.050	ug/L	1.000		94.0	85-115		
LCS Dup (B406124-BSD1)									
Mercury	0.964	0.050	ug/L	1.000		96.4	85-115	2.52	20
Matrix Spike (B406124-MS1)	**Source: 2406018-16**								
Mercury	0.960	0.050	ug/L	1.000	0.042	91.8	80-120		

NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406070									
Blank (B406070-BLK1)									
MBAS, calculated as LAS, mol wt 320	--- U	0.100	mg/L						
Blank (B406070-BLK2)									
MBAS, calculated as LAS, mol wt 320	--- U	0.100	mg/L						
LCS (B406070-BS1)									
MBAS, calculated as LAS, mol wt 320	0.705	0.100	mg/L	0.7080		100	85-115		
LCS Dup (B406070-BSD1)									
MBAS, calculated as LAS, mol wt 320	0.728	0.100	mg/L	0.7080		103	85-115	3	20
Matrix Spike (B406070-MS1)	**Source: 2406018-13**								
MBAS, calculated as LAS, mol wt 320	1.14	0.500	mg/L	0.5000	0.659	95	80-120		
Reference (B406070-SRM1)									
MBAS, calculated as LAS, mol wt 320	0.102	0.100	mg/L	0.1000		102	0-200		
Batch B406071									
Blank (B406071-BLK1)									
Biochemical Oxygen Demand	--- U	2.00	mg/L						
LCS (B406071-BS1)									
Biochemical Oxygen Demand	175		mg/L	198.0		88.4	84.6-115.4		
LCS (B406071-BS2)									
Biochemical Oxygen Demand	168		mg/L	198.0		84.9	84.6-115.4		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406071									
LCS (B406071-BS3)									
Biochemical Oxygen Demand	182		mg/L	198.0		91.7	84.6-115.4		
Duplicate (B406071-DUP1)		**Source: 2406018-16**							
Biochemical Oxygen Demand	2.24	2.00	mg/L		2.08			7.41	25
Matrix Spike (B406071-MS1)		**Source: 2406018-16**							
Biochemical Oxygen Demand	66.8	2.00	mg/L	79.20	2.08	81.7	75-125		
Matrix Spike Dup (B406071-MSD1)		**Source: 2406018-16**							
Biochemical Oxygen Demand	49.8	2.00	mg/L	59.40	2.08	80.3	75-125	29.3	200
Batch B406072									
Blank (B406072-BLK1)									
Phenolics, Total	--- U	20.0	ug/L						
LCS (B406072-BS1)									
Phenolics, Total	1700	40.0	ug/L	1670		102	90-110		
LCS Dup (B406072-BSD1)									
Phenolics, Total	1600	40.0	ug/L	1670		96	90-110	6	20
Matrix Spike (B406072-MS1)		**Source: 2406018-16**							
Phenolics, Total	519	20.0	ug/L	500.0	24.1	99	90-110		
Matrix Spike (B406072-MS2)		**Source: 2406003-01**							
Phenolics, Total	475	20.0	ug/L	500.0	29.1	89	90-110		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406073									
Blank (B406073-BLK1)									
Sulfide	--- U	0.0100	mg/L						
Hydrogen Sulfide, Unionized	0.00340		mg/L						
Blank (B406073-BLK2)									
Sulfide	--- U	0.0100	mg/L						
Hydrogen Sulfide, Unionized	0.00400		mg/L						
LCS (B406073-BS1)									
Sulfide	0.426	0.0100	mg/L	0.4610		92	85-115		
LCS Dup (B406073-BSD1)									
Sulfide	0.433	0.0100	mg/L	0.4610		94	85-115	2	20
Matrix Spike (B406073-MS1)	**Source: 2406018-16**								
Sulfide	0.0737	0.0100	mg/L	0.2000	0.0102	32	80-120		
Batch B406080									
Blank (B406080-BLK1)									
Organic Carbon	--- U	1.00	mg/L						
Blank (B406080-BLK2)									
Organic Carbon	--- U	1.00	mg/L						
LCS (B406080-BS1)									
Organic Carbon	74.6	5.00	mg/L	76.70		97	85-115		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406080									
LCS Dup (B406080-BSD1)									
Organic Carbon	74.8	5.00	mg/L	76.70		98	85-115	0.3	20
Matrix Spike (B406080-MS1)	**Source: 2406018-16**								
Organic Carbon	24.0	1.00	mg/L	20.00	4.37	98	80-120		
Batch B406093									
Blank (B406093-BLK1)									
Residue, Non-Filterable	--- U	10.0	mg/L						
LCS (B406093-BS1)									
Residue, Non-Filterable	46.0	10.0	mg/L	46.40		99.1	85-115		
LCS Dup (B406093-BSD1)									
Residue, Non-Filterable	48.0	10.0	mg/L	46.40		103	85-115	4.26	20
Duplicate (B406093-DUP1)	**Source: 2406018-16**								
Residue, Non-Filterable	15.0	10.0	mg/L		16.0			6.45	20
Batch B406095									
Blank (B406095-BLK1)									
Biochemical Oxygen Demand	--- U	2.00	mg/L						
LCS (B406095-BS1)									
Biochemical Oxygen Demand	165		mg/L	198.0		83.2	84.6-115.4		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406095									
LCS (B406095-BS2)									
Biochemical Oxygen Demand	171		mg/L	198.0		86.5	84.6-115.4		
LCS (B406095-BS3)									
Biochemical Oxygen Demand	176		mg/L	198.0		89.0	84.6-115.4		
Duplicate (B406095-DUP1)		**Source: 2406025-01**							
Biochemical Oxygen Demand	--- U	2.00	mg/L		ND				25
Matrix Spike (B406095-MS1)		**Source: 2406025-01**							
Biochemical Oxygen Demand	60.9	2.00	mg/L	79.20	ND	76.9	75-125		
Matrix Spike Dup (B406095-MSD1)		**Source: 2406025-01**							
Biochemical Oxygen Demand	45.7	2.00	mg/L	59.40	ND	76.9	75-125	28.6	200
Batch B406096									
Blank (B406096-BLK1)									
MBAS, calculated as LAS, mol wt 320	--- U	0.100	mg/L						
Blank (B406096-BLK2)									
MBAS, calculated as LAS, mol wt 320	--- U	0.100	mg/L						
LCS (B406096-BS1)									
MBAS, calculated as LAS, mol wt 320	0.701	0.100	mg/L	0.7080		99	85-115		
LCS Dup (B406096-BSD1)									
MBAS, calculated as LAS, mol wt 320	0.711	0.100	mg/L	0.7080		100	85-115	1	20

NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406096									
Matrix Spike (B406096-MS1)		**Source: 2406025-01**							
MBAS, calculated as LAS, mol wt 320	1.25	2.00	mg/L	0.5000	0.529	145	80-120		
Reference (B406096-SRM1)									
MBAS, calculated as LAS, mol wt 320	0.0989	0.100	mg/L	0.1000		99	0-200		
Batch B406099									
Blank (B406099-BLK1)									
Residue, Non-Filterable	--- U	10.0	mg/L						
LCS (B406099-BS1)									
Residue, Non-Filterable	48.0	10.0	mg/L	46.40		103	85-115		
LCS Dup (B406099-BSD1)									
Residue, Non-Filterable	47.0	10.0	mg/L	46.40		101	85-115	2.11	20
Duplicate (B406099-DUP1)		**Source: 2406025-01**							
Residue, Non-Filterable	9.00	10.0	mg/L		7.00			25.0	20
Batch B406103									
Blank (B406103-BLK1)									
Ammonia [As N]	--- U	0.100	mg/L						
LCS (B406103-BS1)									
Ammonia [As N]	2.08	0.100	mg/L	2.060		101	90-110		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406103									
LCS Dup (B406103-BSD1)									
Ammonia [As N]	2.15	0.100	mg/L	2.060		104	90-110	3	20
Matrix Spike (B406103-MS1)	**Source: 2406018-16**								
Ammonia [As N]	5.13	0.100	mg/L	5.000	0.154	100	90-110		
Batch B406104									
Blank (B406104-BLK1)									
Phosphorus	--- U	0.0500	mg/L						
Blank (B406104-BLK2)									
Phosphorus	--- U	0.0500	mg/L						
LCS (B406104-BS1)									
Phosphorus	9.26	0.250	mg/L	8.450		110	90-110		
LCS (B406104-BS2)									
Phosphorus	9.21	0.250	mg/L	8.450		109	90-110		
LCS Dup (B406104-BSD1)									
Phosphorus	9.11	0.250	mg/L	8.450		108	90-110	2	20
LCS Dup (B406104-BSD2)									
Phosphorus	9.14	0.250	mg/L	8.450		108	90-110	0.8	20
Matrix Spike (B406104-MS1)	**Source: 2406018-16**								
Phosphorus	1.04	0.0500	mg/L	1.000	0.0370	101	90-110		

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

Project Number: 2406018

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406116									
Blank (B406116-BLK1)									
Nitrogen, Total Kjeldahl	--- U	0.100	mg/L						
Blank (B406116-BLK2)									
Nitrogen, Total Kjeldahl	--- U	0.100	mg/L						
LCS (B406116-BS1)									
Nitrogen, Total Kjeldahl	12.8	0.200	mg/L	12.40		103	90-110		
LCS Dup (B406116-BSD1)									
Nitrogen, Total Kjeldahl	12.8	0.200	mg/L	12.40		103	90-110	0	20
Matrix Spike (B406116-MS1)		**Source: 2406018-16**							
Nitrogen, Total Kjeldahl	3.80	0.100	mg/L	4.000	ND	95	90-110		
Batch B406117									
Blank (B406117-BLK1)									
Organic Carbon	--- U	1.00	mg/L						
Blank (B406117-BLK2)									
Organic Carbon	--- U	1.00	mg/L						
LCS (B406117-BS1)									
Organic Carbon	75.8	5.00	mg/L	76.70		99	85-115		
LCS Dup (B406117-BSD1)									
Organic Carbon	75.5	5.00	mg/L	76.70		98	85-115	0.4	20

Final Report

Project: Port Hamilton Refining-Ocean Point Tml - 2406018

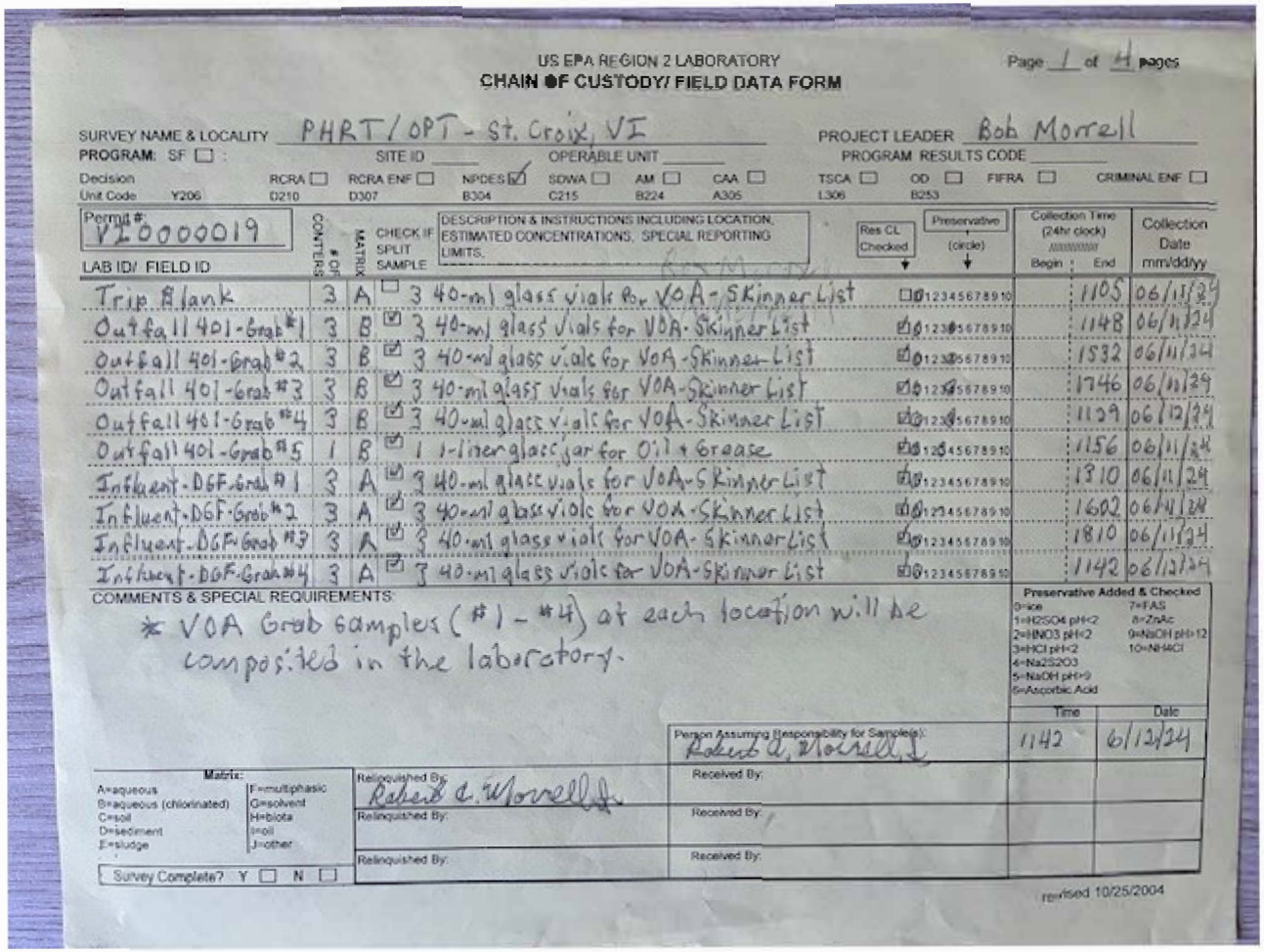
Project Number: 2406018

Sanitary - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B406117									
Matrix Spike (B406117-MS1)		**Source: 2406025-01**							
Organic Carbon	22.4	1.00	mg/L	20.00	2.05	102	80-120		
Batch B407001									
Blank (B407001-BLK1)									
Chemical Oxygen Demand	--- U	20.0	mg/L						
Blank (B407001-BLK2)									
Chemical Oxygen Demand	--- U	20.0	mg/L						
LCS (B407001-BS1)									
Chemical Oxygen Demand	195	40.0	mg/L	194.0		101	90-110		
LCS (B407001-BS2)									
Chemical Oxygen Demand	197	40.0	mg/L	194.0		102	90-110		
LCS Dup (B407001-BSD1)									
Chemical Oxygen Demand	196	40.0	mg/L	194.0		101	90-110	0.6	20
LCS Dup (B407001-BSD2)									
Chemical Oxygen Demand	191	40.0	mg/L	194.0		98	90-110	3	20
Matrix Spike (B407001-MS1)		**Source: 2406018-16**							
Chemical Oxygen Demand	315	200	mg/L	50.00	143	343	90-110		

NOTE: The results recorded in this report relate only to the samples as received on the date and at the time noted

Attachment 7 - Chain of Custody Documentation



US EPA REGION 2 LABORATORY
CHAIN OF CUSTODY/ FIELD DATA FORM

Page 1 of 4 pages

SURVEY NAME & LOCALITY: PHRT/OPT - St. Croix, VI
PROJECT LEADER: Bob Morrell
PROGRAM: SF ☐ : SITE ID: OPERABLE UNIT: PROGRAM RESULTS CODE:
Decision Unit Code Y206 | RCRA ☐ D210 | RCRA ENF ☐ D307 | NPDES ☑ B304 | SDWA ☐ C215 | AM ☐ B224 | CAA ☐ A305 | TSCA ☐ L306 | OD ☐ B253 | FIFRA ☐ | CRIMINAL ENF ☐

Permit #: VI0000019

LAB ID/ FIELD ID	# OF CONTERS	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS.	Res CL Checked	Preservative (circle)	Collection Time (24hr clock) Begin	Collection Time (24hr clock) End	Collection Date mm/dd/yy
Trip Blank	3	A	☐	3 40-ml glass vials for VOA-Skinner List	☐ 1 2 3 4 5 6 7 8 9 10			1105	06/11/24
Outfall 401-Grab #1	3	B	☑	3 40-ml glass vials for VOA-Skinner List	☑ 1 2 3 4 5 6 7 8 9 10			1148	06/11/24
Outfall 401-Grab #2	3	B	☑	3 40-ml glass vials for VOA-Skinner List	☑ 1 2 3 4 5 6 7 8 9 10			1532	06/11/24
Outfall 401-Grab #3	3	B	☑	3 40-ml glass vials for VOA-Skinner List	☑ 1 2 3 4 5 6 7 8 9 10			1746	06/11/24
Outfall 401-Grab #4	3	B	☑	3 40-ml glass vials for VOA-Skinner List	☑ 1 2 3 4 5 6 7 8 9 10			1129	06/12/24
Outfall 401-Grab #5	1	B	☑	1 1-liter glass jar for Oil + Grease	☑ 1 2 3 4 5 6 7 8 9 10			1156	06/11/24
Influent-DGF-Grab #1	3	A	☑	3 40-ml glass vials for VOA-Skinner List	☑ 1 2 3 4 5 6 7 8 9 10			1310	06/11/24
Influent-DGF-Grab #2	3	A	☑	3 40-ml glass vials for VOA-Skinner List	☑ 1 2 3 4 5 6 7 8 9 10			1602	06/11/24
Influent-DGF-Grab #3	3	A	☑	3 40-ml glass vials for VOA-Skinner List	☑ 1 2 3 4 5 6 7 8 9 10			1810	06/11/24
Influent-DGF-Grab #4	3	A	☑	3 40-ml glass vials for VOA-Skinner List	☑ 1 2 3 4 5 6 7 8 9 10			1142	06/12/24

COMMENTS & SPECIAL REQUIREMENTS:
* VOA Grab samples (#1 - #4) at each location will be composited in the laboratory.

Preservative Added & Checked
0=ice 7=FAS
1=H2SO4 pH<2 8=ZnAc
2=HNO3 pH<2 9=NaOH pH>12
3=HCl pH<2 10=NH4Cl
4=Na2S2O3
5=NaOH pH>9
6=Ascorbic Acid

Person Assuming Responsibility for Sample(s):	Time	Date
Robert A. Morrell, Jr.	1142	6/12/24

Matrix:
A=aqueous F=multiphasic
B=aqueous (chlorinated) G=solvent
C=soil H=biota
D=sediment I=oil
E=sludge J=other

Survey Complete? Y ☐ N ☐

Relinquished By:	Received By:	Time	Date
Robert A. Morrell, Jr.			
Relinquished By:	Received By:		
Relinquished By:	Received By:		

revised 10/25/2004

US EPA REGION 2 LABORATORY

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CHAIN OF CUSTODY/ FIELD DATA FORM

SURVEY NAME & LOCALITY: PRRT/OPT - St. Croix, VI

PROJECT LEADER: Bob Morrell

PROGRAM: SF ☐ : SITE ID: ____ OPERABLE UNIT: ____

PROGRAM RESULTS CODE: ____

Decision Unit Code	RCRA ☐ Y206	RCRA ENF ☐ D210	NPDES ☑ D307	SDWA ☐ B304	AM ☐ C215	CAA ☐ B224	TSCA ☐ A305	OD ☐ L306	FIFRA ☐ B253	CRIMINAL ENF ☐

Permit #: VI0000019

LAB ID/ FIELD ID	CONTAINERS # OF	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS,	Res CL Checked	Preservative (circle)	Collection Time (24hr clock) Begin	Collection Time (24hr clock) End	Collection Date mm/dd/yy
Influent-DGF-Grab #5	1	A	☑	1 l-liter glass jar for Oil + Grease	☑	0 1 2 3 4 5 6 7 8 9 10		1302	06/11/24
Influent-DGF-Grab Comp	8	A	☑	1 l-liter plastic jar for BOD5	☑	0 1 2 3 4 5 6 7 8 9 10	1310		06/11/24
			☑	1 250-ml plastic jar for TSS	☑	0 1 2 3 4 5 6 7 8 9 10		1142	06/12/24
			☑	1 250-ml plastic jar for TOC, ammonia, COD, Total P	☑	0 1 2 3 4 5 6 7 8 9 10			
			☑	1 125-ml plastic jar for Sulfide w/ undissociated H_2S	☑	0 1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml plastic jar for Metals - Skinner List	☑	0 1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml amber glass jar for Total Phenolics	☑	0 1 2 3 4 5 6 7 8 9 10			
			☑	1 l-liter amber glass jar for NVOA - Skinner	☑	0 1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml plastic jar for MBAS (Surfactants)	☑	0 1 2 3 4 5 6 7 8 9 10			
			☐		☐	0 1 2 3 4 5 6 7 8 9 10			

COMMENTS & SPECIAL REQUIREMENTS:

For H_2S calculation:
Temperature 24°C
Conductivity 4548 µS/cm
pH 6.96

Preservative Added & Checked

0=ice; 1=H_2SO_4 pH<2; 2=HNO_3 pH<2; 3=HCl pH<2; 4=$Na_2S_2O_3$; 5=NaOH pH>9; 6=Ascorbic Acid; 7=FAS; 8=ZnAc; 9=NaOH pH>12; 10=NH_4Cl

	Time	Date
Person Assuming Responsibility for Sample(s): Robert A. Morrell	1142	6/12/24
Relinquished By: Robert A. Morrell	Received By:	
Relinquished By:	Received By:	
Relinquished By:	Received By:	

Matrix:

A=aqueous; B=aqueous (chlorinated); C=soil; D=sediment; E=sludge; F=multiphasic; G=solvent; H=biota; I=oil; J=other

Survey Complete? Y ☐ N ☐

revised 10/25/2004

US EPA REGION 2 LABORATORY

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CHAIN OF CUSTODY/ FIELD DATA FORM

SURVEY NAME & LOCALITY: PHRT / OPT - St. Croix, VI

PROJECT LEADER: Bob Morrell

PROGRAM: SF ☐ ; SITE ID _____ OPERABLE UNIT _____ PROGRAM RESULTS CODE _____

Decision Unit Code	Y206	RCRA ☐ D210	RCRA ENF ☐ D307	NPDES ☑ B304	SDWA ☐ C215	AM ☐ B224	CAA ☐ A305	TSCA ☐ L306	OD ☐ B253	FIFRA ☐	CRIMINAL ENF ☐

Permit #: VI0000019

LAB ID/ FIELD ID	# OF CONTERS	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS,	Res Cl Checked	Preservative (circle)	Collection Time (24hr clock) Begin	Collection Time (24hr clock) End	Collection Date mm/dd/yy
Outfall 401 4hr Grab Comp.	2	B	☑	1 250-ml amber-glass jar for Total Phenolics	☑	1 2 3 4 5 6 7 8 9 10	1148		06/11/24
			☑	1 1-liter amber-glass jar for NVOA-Skinner List	☑	1 2 3 4 5 6 7 8 9 10		1129	06/12/24
Outfall 401-24 Hr Comp	6	B	☑	1 1-liter plastic jar for BOD5	☑	1 2 3 4 5 6 7 8 9 10	1040		06/11/24
			☑	1 250-ml Plastic jar for TSS	☑	1 2 3 4 5 6 7 8 9 10		1040	06/12/24
			☑	1 250-ml Plastic jar for Toc, Ammonia, COD, Total P	☑	1 2 3 4 5 6 7 8 9 10			
			☑	1 125-ml Plastic jar for Sulfide w/ undissociated H_2S	☑	1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml Plastic jar for Metals - Skinner List	☑	1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml Plastic jar for MBAS (Surfactants)	☑	1 2 3 4 5 6 7 8 9 10			
			☐		☐	1 2 3 4 5 6 7 8 9 10			
			☐		☐	1 2 3 4 5 6 7 8 9 10			

COMMENTS & SPECIAL REQUIREMENTS:

For H_2S calculations:
Temperature 33°C
Conductivity 10009 uS/cm
pH 8.37

Preservative Added & Checked

0=ice; 1=H_2SO_4 pH<2; 2=HNO_3 pH<2; 3=HCl pH<2; 4=$Na_2S_2O_3$; 5=NaOH pH>9; 6=Ascorbic Acid; 7=FAS; 8=ZnAc; 9=NaOH pH>12; 10=NH_4Cl

	Time	Date
Person Assuming Responsibility for Sample(s): Robert A. Morrell Jr.	1142	6/12/24
Relinquished By: Robert A. Morrell Jr. / Received By:		
Relinquished By: / Received By:		
Relinquished By: / Received By:		

Matrix:

A=aqueous; B=aqueous (chlorinated); C=soil; D=sediment; E=sludge; F=multiphasic; G=solvent; H=biota; I=oil; J=other

Survey Complete? Y ☐ N ☐

revised 10/25/2004

US EPA REGION 2 LABORATORY

CHAIN OF CUSTODY/ FIELD DATA FORM

SURVEY NAME & LOCALITY: PHRT/OPT - St. Croix, VI

PROJECT LEADER: Bob Morrell

PROGRAM: SF ☐ : SITE ID: OPERABLE UNIT:

PROGRAM RESULTS CODE:

Decision Unit Code	RCRA ☐ Y206	RCRA ENF ☐ D210	NPDES ☑ D307	SDWA ☐ B304	AM ☐ C215	CAA ☐ B224	TSCA ☐ A305	OD ☐ L306	FIFRA ☐ B253	CRIMINAL ENF ☐

Permit #: VI0000019

LAB ID/ FIELD ID	# OF CONTERS	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS.	Res Cl. Checked	Preservative (circle)	Collection Time (24hr clock) Begin	Collection Time (24hr clock) End	Collection Date mm/dd/yy
Outfall 001-Grab	20	A	☑	3 1-liter glass jars for oil+grease	☑	1 2 3 4 5 6 7 8 9 10		1012	06/12/24
			☑	1 125-ml plastic jar for sulfide w/ undissoc. H_2S	☑	1 2 3 4 5 6 7 8 9 10			
			☑	6 40-ml glass vials for VOA- Skinner List	☑	1 2 3 4 5 6 7 8 9 10			
			☑	3 1-liter amber glass jars for NVOA+ Skinner L.	☑	1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml P jar for Metals - Skinner List	☑	1 2 3 4 5 6 7 8 9 10			
			☑	1 500-ml Plastic jar for Total P, COD, TKN, Ammonia, TOC	☑	1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml Plastic jar for MBAS (Surfactants)	☑	1 2 3 4 5 6 7 8 9 10			
			☑	2 1-liter plastic jars for BOD5	☑	1 2 3 4 5 6 7 8 9 10			
			☑	1 500-ml plastic jar for TSS	☑	1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml amber glass jar for Total Phenolics	☑	1 2 3 4 5 6 7 8 9 10			

COMMENTS & SPECIAL REQUIREMENTS:

For H_2S calculation:
Temperature 36°C
Conductivity 54705 us/cm
pH 8.34

Preservative Added & Checked

0=ice; 1=H_2SO_4 pH<2; 2=HNO_3 pH<2; 3=HCl pH<2; 4=$Na_2S_2O_3$; 5=NaOH pH>9; 6=Ascorbic Acid; 7=FAS; 8=Zn/Ac; 9=NaOH pH>12; 10=NI-HCl

	Time	Date
Person Assuming Responsibility for Sample(s): Robert A. Morrell	1142	6/12/24
Relinquished By: Robert A. Morrell	Received By:	
Relinquished By:	Received By:	
Relinquished By:	Received By:	

Matrix:

A=aqueous; B=aqueous (chlorinated); C=soil; D=sediment; E=sludge; F=multiphasic; G=solvent; H=biota; I=oil; J=other

Survey Complete? Y ☐ N ☐

revised 10/25/2004

US EPA REGION 2 LABORATORY

CHAIN OF CUSTODY/ FIELD DATA FORM

Page 1 of 1 pages

SURVEY NAME & LOCALITY: PHRT/OPT - St. Croix, VI

PROJECT LEADER: Bob Morrell

PROGRAM: SF ☐ : SITE ID: _____ OPERABLE UNIT: _____ PROGRAM RESULTS CODE: _____

Decision Unit Code	RCRA ☐ Y206	RCRA ENF ☐ D210	NPDES ☑ D307	SDWA ☐ B304	AM ☐ C215	CAA ☐ B224	TSCA ☐ A305	OD ☐ L306	FIFRA ☐ B253	CRIMINAL ENF ☐

Permit #: VI0000019

LAB ID/ FIELD ID	CONTAINER # OF	MATRIX	CHECK IF SPLIT SAMPLE	DESCRIPTION & INSTRUCTIONS INCLUDING LOCATION, ESTIMATED CONCENTRATIONS, SPECIAL REPORTING LIMITS.	Ras CL Checked	Preservative (circle)	Collection Time (24hr clock) Begin	Collection Time (24hr clock) End	Collection Date mm/dd/yy
Intake	6	A	☑	1 1-liter plastic jar for BOD5	☐	0 1 2 3 4 5 6 7 8 9 10		1120	06/13/24
			☑	1 250-ml plastic jar for TSS	☐	0 1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml plastic jar for TOC, Ammonia, COD, Total P, TKN	☐	0 1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml plastic jar for Metals - Skinner List	☐	0 1 2 3 4 5 6 7 8 9 10			
			☑	1 250-ml plastic jar for MBAS (surfactants)	☐	0 1 2 3 4 5 6 7 8 9 10			
			☑	1 1-liter glass jar for O&G	☐	0 1 2 3 4 5 6 7 8 9 10			
			☐		☐	0 1 2 3 4 5 6 7 8 9 10			
			☐		☐	0 1 2 3 4 5 6 7 8 9 10			
			☐		☐	0 1 2 3 4 5 6 7 8 9 10			
			☐		☐	0 1 2 3 4 5 6 7 8 9 10			

COMMENTS & SPECIAL REQUIREMENTS:

Preservative Added & Checked

0=ice; 1=H2SO4 pH<2; 2=HNO3 pH<2; 3=HCl pH<2; 4=Na2S2O3; 5=NaOH pH>9; 6=Ascorbic Acid; 7=FAS; 8=ZnAc; 9=NaOH pH>12; 10=NH4Cl

Person Assuming Responsibility for Sample(s):	Time	Date
Robert A. Morrell Jr.	1120	6/13/24

Matrix:

A=aqueous; B=aqueous (chlorinated); C=soil; D=sediment; E=sludge; F=multiphasic; G=solvent; H=biota; I=oil; J=other

Survey Complete? Y ☑ N ☐

Relinquished By:	Received By:		
Robert A. Morrell Jr.			
Relinquished By:	Received By:		
Relinquished By:	Received By:		

revised 10/25/2004