



February 20, 2024

Chelsea Fazzino, PG
Licensed Professional Geologist
Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

sent via email to cfazzino@pa.gov

**Subject: Tank Group 07A Closure Report
Former Philadelphia Energy Solutions Refinery
3144 West Passyunk Avenue, Philadelphia, PA**

Dear Ms. Fazzino:

Terraphase Engineering Inc. (Terraphase) has prepared this *Tank Group 07A Closure Report* (Tank Closure Report), on behalf of Philadelphia Energy Solutions Refining and Marketing LLC (PESRM). This Tank Closure Report presents the alternate Site Assessment analytical results associated with Tank Group 07A (the “Site”). The results of the alternate Site Assessment activities support obtaining regulatory closure of aboveground storage tanks (ASTs) GP R 250 (PADEP No. 019A) and GP R 251 (PADEP No. 020A), known as Tank Group 07A, at the former Philadelphia Energy Solutions (PES) Refinery property located at 3144 West Passyunk Avenue in Philadelphia, Pennsylvania (**Figure 1**). The presence of standing water, determined to be shallow groundwater emergent at the ground surface, is present within the containment berm for former ASTs GP R 250 and GP R 251. This has prevented PESRM from being able to complete Site Assessment sampling in accordance with Terraphase’s (2021) *AST Closure Work Plan*. Terraphase shared an alternative approach to complete Site Assessment sampling with the Pennsylvania Department of Environmental Protection (PADEP) on December 1, 2023. PADEP approved the alternate Site Assessment scope of work for Tank Group 07A in its correspondence dated December 6, 2023.

Background

The demolition and decommissioning of the subject ASTs began and was completed in September 2021. Prior to demolition, the primary products held within these tanks were Light Cycle Oil (GP R 250) and Untreated Distillate (GP R 251). Additional details regarding the size, contents, and construction of the tanks are provided in **Table 1**. On behalf of PESRM, JD2 Environmental, Inc. and ACI submitted to PADEP the required tank registration amendments, copies of which are provided as **Appendix A**. In addition, the Aboveground Storage Tank System Closure Report form (2630-FM-BECB0514) is included in **Appendix B**.

Alternate Site Assessment Sampling

Standing water has been observed within the containment berm for former ASTs GP R 250 and GP R 251 for several months. NorthStar Contracting Group, Inc. (NorthStar) conducted dewatering activities in the area but was unsuccessful. Additionally, Terraphase conducted a comparison of recent groundwater elevations to the surface elevation in the area and it indicated that groundwater is at an elevation similar to or greater than the ground surface elevation in the area of the two tanks. Terraphase also installed piezometers and measured groundwater levels between July 2023 and August 2023. The results of this monitoring indicated the groundwater elevation in the piezometers are greater than or equal to the elevation of the surface water during the majority of the gauging events and are provided in **Appendix C**. The PADEP agreed with this assessment.

Based on the preceding evidence demonstrating that the standing water in Tank Group 07A is in connection with groundwater, Site Assessment sampling could not be completed in accordance with the PADEP-approved *AST Closure Work Plan* (Terraphase 2021). As such, PESRM presented an alternative Site Assessment scope of work to PADEP representatives and submitted the scope on December 1, 2023, which PADEP approved on December 6, 2023.

Soil and groundwater sampling was completed by Terraphase and their subcontractor MB Drilling, LLC on December 15, 2023. Prior to the initiation of the sampling activities, a review of available information provided by Facility representatives regarding the presence/absence of underground utilities was used in the proposed sampling locations. In addition, a private locate was performed using geophysical and electromagnetic techniques to identify potential utilities or subsurface structures at proposed drilling locations.

Soil borings were completed using direct-push (i.e., Geoprobe) drilling methods and advanced to 5 feet below ground surface (ft bgs). Continuous soil cores were collected, and field screened using a photoionization detector to identify potentially impacted zones. Soil boring logs are provided in **Appendix D**. In total, seven soil borings were installed during the Site Assessment, as close in proximity to the ASTs and standing water as possible. Terraphase collected a soil sample from one 6-inch interval in each boring, as well as a field duplicate at boring GPR250-03. In addition, groundwater samples were collected from two nearby piezometers (previously installed to evaluate groundwater elevations in the area), and two surface water samples were collected from the standing water within the TG07A secondary containment berms. A field duplicate sample was collected at piezometer TG07A-PZ01. Site Assessment sampling locations are depicted on **Figure 2**.

Soil, groundwater, and surface water samples were analyzed for Short List 1-5¹. Laboratory analytical services were provided by Alpha Analytical, Inc. of Westborough, Massachusetts, which is a PADEP-certified laboratory. Samples submitted for analyses were placed directly into laboratory provided glassware and stored on ice in a cooler under appropriate chain of custody protocol.

¹ Short List 1-5 includes analytes benzene, cumene, 1,2-dibromoethane, 1,2-dichloroethane, ethyl benzene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, methyl tert-butyl ether, xylenes, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, chrysene, fluorene, naphthalene, phenanthrene, pyrene, and lead.



Sampling Results

Soil sampling results were compared to the following Non-Residential (Non-Res) Medium Specific Concentrations (MSCs) to help identify potential releases to the environment from the ASTs and their associated piping:

- Non-Res Direct Contact (DC) Numeric Values for Surface Soil (0-2 ft bgs)
- Non-Res DC Numeric Value for Subsurface Soil (2-15 ft bgs)
- Non-Res Soil-to-Groundwater (SGW) Numeric Values for Used Aquifers (Total Dissolved Solids [TDS] \leq 2,500)

As presented in **Table 2a**, none of the Site Assessment soil samples collected in proximity to GP R 250 or GP R 251 exhibited concentrations greater than the applicable MSCs. **Figure 2** presents the spatial distribution of the soil sampling locations. **Appendix E** provides copies of the laboratory data packages.

Groundwater and surface water² sampling results were compared to the following Non-Res MSCs to help identify potential releases to the environment from the ASTs and their associated piping:

- Non-Res Groundwater Numeric Values for Used Aquifers (TDS \leq 2,500)

As presented in **Table 2b**, none of the Site Assessment groundwater or surface water samples collected in proximity to GP R 250 or GP R 251 exhibited concentrations greater than the applicable MSCs.

Figure 2 presents the spatial distribution of the groundwater sampling locations. **Appendix E** provides copies of the laboratory data packages.

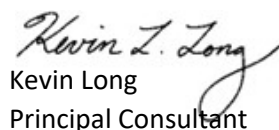
Conclusion

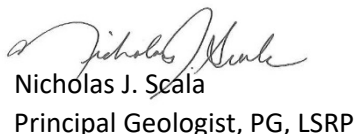
Terraphase has prepared this Tank Closure Report, on behalf of PESRM, to detail the results of the alternate Site Assessment activities in Tank Group 07A. The specific ASTs addressed in this Tank Closure Report include GP R 250 (PADEP No. 019A) and GP R 251 (PADEP No. 020A).

Visual observations of the ASTs in Tank Group 07A revealed no indications of release. Based on the soil, groundwater, and surface water results, no evidence of a release from GP R 250 or GP R 251 was identified. The Site Assessment outcome for the two tanks was “No Obvious Contamination – Sample Results Meet Action Levels.” Based on the information presented, PESRM has overcome the presumption of liability under Act 32 as detailed in 25 PA Code §245.303(d) and respectfully requests closure of tanks GP R 250 and GP R 251 in Tank Group 07A.

Sincerely,

for Terraphase Engineering Inc.


Kevin Long
Principal Consultant


Nicholas J. Scala
Principal Geologist, PG, LSRP

² Based on the evidence demonstrating that the standing water in Tank Group 07A is in connection with groundwater, the surface water results were compared to the applicable groundwater MSCs.



Attachments (10):

- Table 1 Aboveground Storage Tank Details
- Table 2a Summary of Soil Analytical Results
- Table 2b Summary of Groundwater and Surface Water Analytical Results
- Figure 1 Facility Location
- Figure 2 Soil, Groundwater, and Surface Water Sampling Locations
- Appendix A Tank Registration Amendment Forms
- Appendix B Aboveground Storage Tank System Closure Report Forms
- Appendix C October 4, 2023 *Technical Memorandum – Tank Group 07A Gauging Summary* prepared by Terraphase Engineering on behalf of PESRM
- Appendix D Soil Boring Logs and Piezometer Completion Records
- Appendix E Laboratory Data Package

cc: Julianna Connolly, LSP, PESRM
Amy Piccone, PESRM
Richard Staron, PADEP



Tables

- 1 Aboveground Storage Tank Details
- 2a Summary of Soil Analytical Results
- 2b Summary of Groundwater and Surface Water Analytical Result



Table 1
Aboveground Storage Tank Details
Tank Group 07A

Philadelphia Energy Solutions Refining and Marketing LLC, Philadelphia, PA

| Facility | State Regulation Number | Tank Number | Design Capacity (gal) | Primary Product | Proposed Analyte List ^x | Regulatory Status | Facility ID | Status Modification Date | Tank Type | Double Bottom | Diameter (ft) | Height (ft) | Remaining Liquid (gal) | GPS Survey Complete | Demo Complete | Storage Tanks Reg./Permit App Form Submitted | Release Notification | Incident No. | Int. Remedial/Corrective Action Required |
|--------------|-------------------------|-------------|-----------------------|-----------------------|------------------------------------|-------------------|-------------|--------------------------|-----------|---------------|---------------|-------------|------------------------|---------------------|---------------|--|----------------------|--------------|--|
| Girard Point | 019A | GP R 250 | 3,045,000 | Light Cycle Oil | Short List 1-5 | R | 51-33624 | 9/29/2021 | IFR | Y | 120 | 40 | | Y | Y* | 11/1/2021 | | | |
| Girard Point | 020A | GP R 251 | 3,045,000 | Distillate, Untreated | Short List 1-5 | R | 51-33624 | 9/29/2021 | IFR | Y | 120 | 40 | | Y | Y* | 11/1/2021 | | | |

Notes

* - Double bottom still to be removed.

Abbreviations

IFR -- Internal Floating Roof

No -- No

R -- Removed

Y -- Yes

Table 2a
Summary of Soil Analytical Results
Tank Group 07A

Philadelphia Energy Solutions Refining and Marketing LLC, Philadelphia, PA

| Location | | | GPR250-01 | GPR250-02 | GPR250-03 | GPR250-03 | GPR251-01 | GPR251-02 | GPR251-03 | GPR251-04 |
|---------------------------------------|-------------------|--------------|---------------------|----------------|----------------|-----------------|----------------|----------------|-----------------|----------------|
| Field Sample ID | Non-Res Direct | Non-Res Used | GPR250-01-SS01 | GPR250-02-SS01 | GPR250-03-SS01 | GPR250-03-SS01D | GPR251-01-SS01 | GPR251-02-SS01 | GPR251-03-SS01 | GPR251-04-SS01 |
| Collection Depth (ft bgs) | Contact with Soil | Aquifer | 2.5 - 3.0 | 1.5 - 2.0 | 2.0 - 2.5 | 2.0 - 2.5 | 0.0 - 0.5 | 3.0 - 3.5 | 2.5 - 3.0 | 1.0 - 1.5 |
| Sample Method | MSC | (TDS ≤ 2500) | Grab | Grab | Grab | Grab | Grab | Grab | Grab | Grab |
| Sample Date | Soil-to-GW MSC | | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| Comments | | | | | | Field Duplicate | | | | |
| Volatile Organic Compounds | | | | | | | | | | |
| Benzene | 280 | 0.5 | 0.00028 J (0.00042) | ND (0.00046) | ND (0.00046) | ND (0.00048) | ND (0.00042) | ND (0.00045) | ND (0.00047) | ND (0.00054) |
| Cumene | 10000 | 2500 | ND (0.00084) | ND (0.00091) | ND (0.00093) | ND (0.00097) | ND (0.00085) | ND (0.00091) | ND (0.00094) | ND (0.0011) |
| 1,2-Dibromoethane | 3.7 | 0.005 | ND (0.00042) | ND (0.00046) | ND (0.00046) | ND (0.00048) | ND (0.00042) | ND (0.00045) | ND (0.00047) | ND (0.00054) |
| 1,2-Dichloroethane | 85 | 0.5 | ND (0.00084) | ND (0.00091) | ND (0.00093) | ND (0.00097) | ND (0.00085) | ND (0.00091) | ND (0.00094) | ND (0.0011) |
| Ethyl Benzene | 880 | 70 | ND (0.00084) | ND (0.00091) | ND (0.00093) | ND (0.00097) | ND (0.00085) | ND (0.00091) | ND (0.00094) | ND (0.0011) |
| Methyl tert-butyl ether | 8500 | 2 | ND (0.0017) | ND (0.0018) | ND (0.0018) | ND (0.0019) | ND (0.0017) | ND (0.0018) | ND (0.0019) | ND (0.0022) |
| Toluene | 10000 | 100 | ND (0.00084) | ND (0.00091) | ND (0.00093) | ND (0.00097) | ND (0.00085) | ND (0.00091) | ND (0.00094) | ND (0.0011) |
| 1,2,4-Trimethylbenzene | 4700 | 300 | 0.00038 J (0.0017) | ND (0.0018) | ND (0.0018) | ND (0.0019) | ND (0.0017) | ND (0.0018) | ND (0.0019) | ND (0.0022) |
| 1,3,5-Trimethylbenzene | 4700 | 93 | ND (0.0017) | ND (0.0018) | ND (0.0018) | ND (0.0019) | ND (0.0017) | ND (0.0018) | ND (0.0019) | ND (0.0022) |
| Xylenes (total) | 7900 | 1000 | ND (0.00084) | ND (0.00091) | ND (0.00093) | ND (0.00097) | ND (0.00085) | ND (0.00091) | ND (0.00094) | ND (0.0011) |
| Semivolatile Organic Compounds | | | | | | | | | | |
| Anthracene | 190000 | 350 | 0.11 J (0.12) | ND (0.12) | 0.057 J (0.12) | ND (0.12) | ND (0.12) | ND (0.11) | ND (0.12) | ND (0.13) |
| Benzo(a)anthracene | 130 | 340 | 0.37 (0.12) | 0.032 J (0.12) | 0.28 (0.12) | 0.035 J (0.12) | 0.078 J (0.12) | 0.022 J (0.11) | 0.06 J (0.12) | 0.15 (0.13) |
| Benzo(a)pyrene | 91 | 46 | 0.45 (0.16) | ND (0.16) | 0.27 (0.16) | ND (0.16) | 0.081 J (0.16) | ND (0.15) | 0.076 J (0.16) | 0.21 (0.17) |
| Benzo(b)fluoranthene | 76 | 170 | 0.58 (0.12) | 0.058 J (0.12) | 0.31 (0.12) | 0.042 J (0.12) | 0.093 J (0.12) | ND (0.11) | 0.084 J (0.12) | 0.23 (0.13) |
| Benzo(g,h,i)perylene | 190000 | 180 | 0.3 (0.16) | 0.038 J (0.16) | 0.14 J (0.16) | ND (0.16) | 0.043 J (0.16) | ND (0.15) | 0.044 J (0.16) | 0.13 J (0.17) |
| Chrysene | 760 | 230 | 0.42 (0.12) | 0.039 J (0.12) | 0.28 (0.12) | 0.038 J (0.12) | 0.077 J (0.12) | 0.022 J (0.11) | 0.063 J (0.12) | 0.17 (0.13) |
| Fluorene | 130000 | 3800 | 0.021 J (0.2) | ND (0.2) | ND (0.2) | ND (0.2) | ND (0.19) | ND (0.19) | ND (0.2) | ND (0.22) |
| Naphthalene | 66 | 25 | 0.19 (0.04) | ND (0.039) | ND (0.04) | ND (0.039) | ND (0.039) | ND (0.037) | 0.035 J (0.039) | 0.18 (0.043) |
| Phenanthrene | 190000 | 10000 | 0.24 (0.12) | 0.028 J (0.12) | 0.28 (0.12) | 0.056 J (0.12) | 0.092 J (0.12) | ND (0.11) | 0.046 J (0.12) | 0.12 J (0.13) |
| Pyrene | 96000 | 2200 | 0.55 (0.12) | 0.045 J (0.12) | 0.48 (0.12) | 0.069 J (0.12) | 0.13 (0.12) | 0.033 J (0.11) | 0.077 J (0.12) | 0.2 (0.13) |
| Metals | | | | | | | | | | |
| Lead | 1000 | 450 | 350 (2.35) | 36.3 (2.24) | 19.8 (2.36) | 17.2 (2.31) | 38 (2.29) | 21.8 (2.28) | 40.1 (2.32) | 66.7 (2.63) |

Notes:

- 1 All concentrations reported in mg/kg (ppm); detection limits in parentheses.
- 2 No concentrations exceed the Non-Res Direct Contact with Soil MSC.
- 3 No concentrations exceed the Non-Res Used Aquifer (TDS ≤ 2500) Soil-to-GW MSC.

Abbreviations:

- ND - Not Detected
- J - Estimated Concentration

Table 2b

Summary of Groundwater and Surface Water Analytical Results

Tank Group 07A

Philadelphia Energy Solutions Refining and Marketing LLC, Philadelphia, PA

| Location | Non-Res Used | TG07A-PZ01 | TG07A-PZ01 | TG07A-PZ02 | TG07A-SW01 | TG07A-SW02 |
|---------------------------------------|--------------|-------------------|--------------------|-------------------|-------------------|-------------------|
| Field Sample ID | Aquifer | TG07A-PZ01-231215 | TG07A-PZ01-231215D | TG07A-PZ02-231215 | TG07A-SW01-231215 | TG07A-SW02-231215 |
| Sample Method | (TDS ≤ 2500) | Grab | Grab | Grab | Grab | Grab |
| Sample Date | Groundwater | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 | 12/15/2023 |
| Comments | MSC | Field Duplicate | | | | |
| Volatile Organic Compounds | | | | | | |
| Benzene | 5 | ND (0.5) | ND (0.5) | ND (0.5) | 0.19 J (0.5) | 0.2 J (0.5) |
| Cumene | 3500 | ND (0.5) | ND (0.5) | ND (0.5) | 0.19 J (0.5) | 0.19 J (0.5) |
| 1,2-Dibromoethane | 0.05 | ND (0.01) | ND (0.01) | ND (0.01) | ND (0.01) | ND (0.01) |
| 1,2-Dichloroethane | 5 | ND (0.5) | ND (0.5) | ND (0.5) | ND (0.5) | ND (0.5) |
| Ethyl Benzene | 700 | ND (0.5) | ND (0.5) | ND (0.5) | ND (0.5) | ND (0.5) |
| Methyl tert-butyl ether | 20 | ND (1) | ND (1) | ND (1) | ND (1) | ND (1) |
| Toluene | 1000 | ND (0.75) | ND (0.75) | ND (0.75) | ND (0.75) | ND (0.75) |
| 1,2,4-Trimethylbenzene | 530 | ND (2.5) | ND (2.5) | ND (2.5) | ND (2.5) | ND (2.5) |
| 1,3,5-Trimethylbenzene | 530 | ND (2.5) | ND (2.5) | ND (2.5) | ND (2.5) | ND (2.5) |
| Xylenes (total) | 10000 | ND (1) | ND (1) | ND (1) | ND (1) | ND (1) |
| Semivolatile Organic Compounds | | | | | | |
| Anthracene | 66 | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) |
| Benzo(a)anthracene | 3.9 | ND (0.05) | ND (0.05) | ND (0.05) | ND (0.05) | ND (0.05) |
| Benzo(a)pyrene | 0.2 | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) |
| Benzo(b)fluoranthene | 1.2 | ND (0.05) | ND (0.05) | ND (0.05) | 0.01 J (0.05) | 0.02 J (0.05) |
| Benzo(g,h,i)perylene | 0.26 | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) |
| Chrysene | 1.9 | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) |
| Fluorene | 1900 | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) |
| Naphthalene | 100 | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) | ND (0.1) |
| Phenanthrene | 1100 | ND (0.05) | ND (0.05) | ND (0.05) | ND (0.05) | ND (0.05) |
| Pyrene | 130 | ND (0.1) | ND (0.1) | ND (0.1) | 0.02 J (0.1) | 0.03 J (0.1) |
| Metals | | | | | | |
| Lead | 5 | 1.609 (1) | 0.4309 J (1) | ND (1) | 0.8006 J (1) | 2.074 (1) |

Notes:

- 1 All concentrations reported in ug/L (ppb); detection limits in parentheses.
- 2 No concentrations exceed the Non-Res Used Aquifer (TDS ≤ 2500) Groundwater MSC.
- 3 Based on the evidence demonstrating that the standing water in Tank Group 07A is in connection with groundwater, the surface water results were compared to the applicable groundwater MSCs.

Abbreviations:

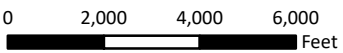
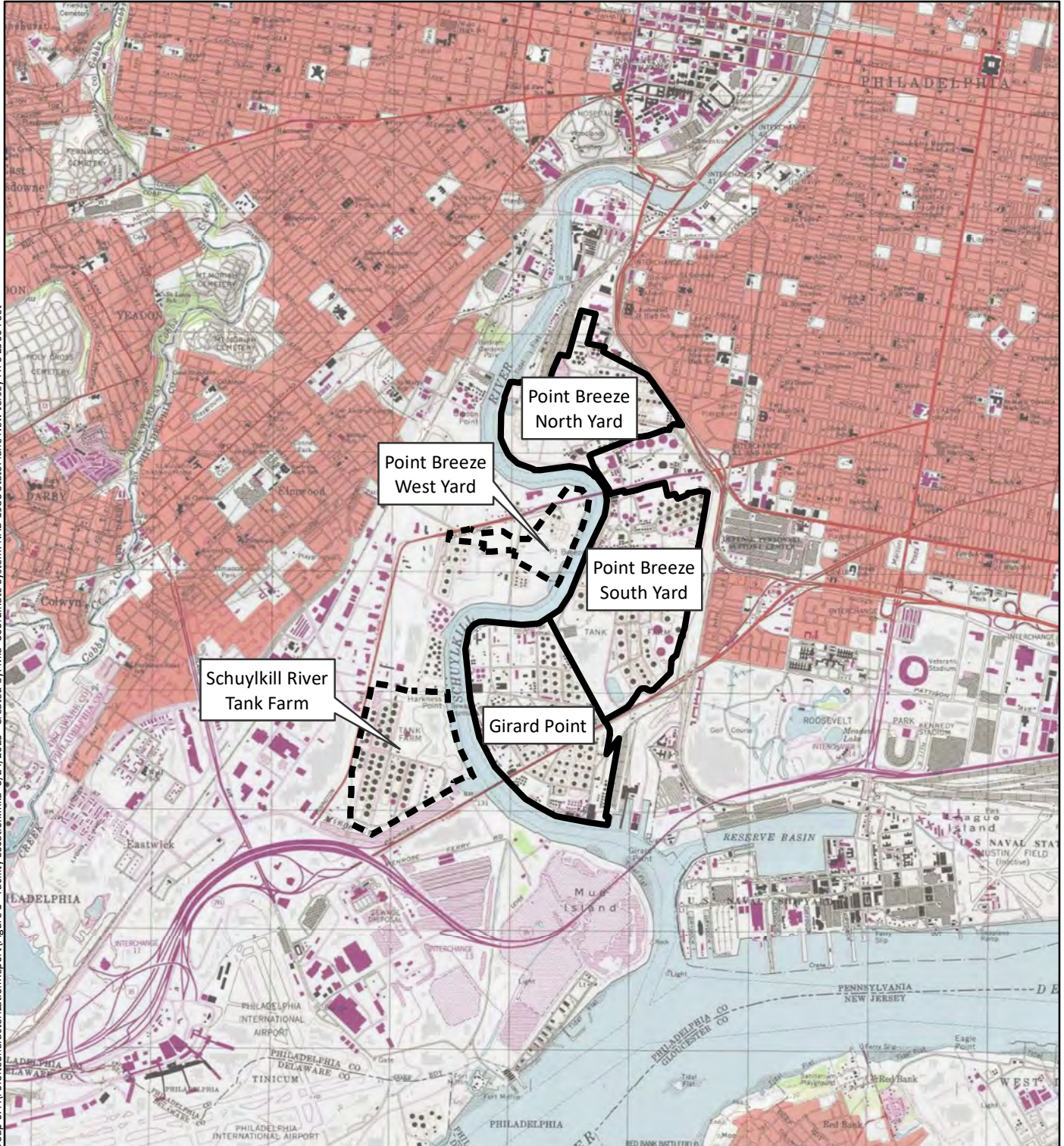
- ND - Not Detected
- J - Estimated Concentration

Figures

- 1 Figure 1 Facility Location
- 2 Figure 2 Soil, Groundwater, and Surface Water Sampling Locations



File: N:\GIS\Prj\p044.001_PESRM-PE\WXD\AST\Work\Tank Group 07A\FacilityCharacterizationReport\Figure 1 - Facility Location.mxd 3/24/2023 Created by: Mia Coordinate System: NAD 1983 StatePlane New Jersey FIPS 2900 Feet



1 inch = 4,000 feet



Legend

- Subject to AST Closure Plan
- Not Subject to AST Closure Plan

Base Map: USGS Philadelphia 1994 7.5 Minute Quadrangle.

| | | |
|---------------------|--|--------------------------|
| SAFETY FIRST | CLIENT: Philadelphia Energy Solutions Refining and Marketing LLC | Facility Location |
| | PROJECT: Aboveground Storage Tank Closure | |
| | PROJECT NUMBER: P044.001.002 | |

File: N:\GIS\PI\P044_001_PESRM-PES\MXDS\AST Work\Tank Group 07A\FOR Closure Report\Letter Figure 2 - Soil, Groundwater, and Surface Water Sampling Locations.mxd Created by: M.Civilillo Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet



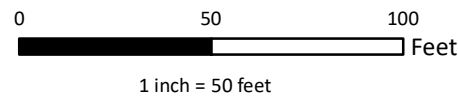
Legend

- Property Boundary
- Tank Group 07 Boundary
- Existing Concrete Sump Pit
- Estimated Groundwater Flow Direction
- Associated Piping
- Concrete Wall Location

Sample Location

- Soil
- Surface Water
- Piezometer

Note:
Aerial imagery source: TPI (December 12, 2023)



| | | | |
|--|-----------------|--|--|
| | CLIENT: | Philadelphia Energy Solutions Refining and Marketing LLC | Soil, Groundwater, and Surface Water Sampling Locations |
| | PROJECT: | Aboveground Storage Tank Closure | |
| | PROJECT NUMBER: | P044.001.002 | |

Figure 2

Appendix A

Tank Registration Amendment Forms





October 28, 2021

VIA EMAIL (ELECTRONIC SUBMISSION)

Pennsylvania Department of Environmental Protection
Central Office - Division of Storage Tanks
Rachel Carson State Office Building
400 Market Street
Harrisburg, Pennsylvania 17101

**Subject: Philadelphia Energy Solutions Refining and Marketing, LLC (PES)
PADEP Storage Tanks Registration/Permitting Application Form
PADEP Facility ID #51-33624 - Girard Point Refinery**

Dear PADEP:

On behalf of our client, JD2 Environmental, Inc. (JD2) is attaching the Pennsylvania Department of Environmental Protection's (PADEP's) Storage Tanks Registration/Permitting Application Form for the removal of the following aboveground storage tanks (ASTs):

| Facility Name | PADEP Facility ID # | PADEP Tank ID # | Owner Tank ID # | AMS Tank ID # | Removal Date |
|-----------------------|---------------------|-----------------|-----------------|---------------|--------------|
| Girard Point Refinery | 51-33624 | 019A | GP 250 | P-009 | 9/29/2021 |
| Girard Point Refinery | 51-33624 | 020A | GP 251 | P-010 | 9/29/2021 |

If you have any questions regarding this submittal, please do not hesitate to contact me at (610) 430-8151.

Sincerely yours,

JD2 ENVIRONMENTAL, INC.

Kristian Satterthwaite
Environmental Scientist
PADEP Inspector #5081

KS:wc
Attachment

cc: REPSG

STORAGE TANKS REGISTRATION / PERMITTING APPLICATION FORM

Before completing this form, read the step-by-step instructions provided in this application package.

| | |
|--|---|
| 51-33624 Facility ID # | DEP USE ONLY |
| Phila Ref Girard Point Facility Name | Client ID# Site ID# Account # Auth ID# APS ID# Master Auth ID# |

I. PURPOSE OF SUBMITTAL

INITIAL (Applies to First-Time Facility Registration)

- | | |
|---|--|
| <input type="checkbox"/> Register Tanks(s) to be Used* | <input type="checkbox"/> Register Tank(s) to be Temporarily Out of Use |
| <input type="checkbox"/> Register Tank(s) to be Removed | <input type="checkbox"/> Register Tank(s) to be Closed in Place |

AMENDED (Applies to Currently Registered Tank(s) or Existing Facility)

- | | |
|--|---|
| <input type="checkbox"/> Changed Owner Information | <input type="checkbox"/> Changed Contact Information |
| <input type="checkbox"/> Changed Facility Information | <input type="checkbox"/> Changed Facility Operator Information |
| <input type="checkbox"/> Changed to Currently In Use Tank(s)* | <input type="checkbox"/> Added Tank(s) to Existing Facility* |
| <input type="checkbox"/> Changed to Temporarily Out of Use Tank(s) | <input checked="" type="checkbox"/> Changed to Permanently Closed Tank(s)/Removed |
| <input type="checkbox"/> Changed Product | <input type="checkbox"/> Changed to Exempt Tank(s) |

CHANGE OF OWNERSHIP

- Tanks Changed Ownership and Remain at Same Facility*

* For Underground Storage Tanks (UST), attach the UST Operator Training Documentation Form (2630-PM-BECB0514a) and copies of the Class A and Class B operator training certificates.

II. CURRENT OR NEW TANK OWNER / CLIENT INFORMATION

| | | | | |
|---|------------------|--|-------------------------------------|-----------------------------------|
| DEP Client ID# | Client Type/Code | Fee Kind (check one if applicable) | | |
| 298341 | | <input type="checkbox"/> Volunteer Fire Co/EMS Org | <input type="checkbox"/> State Govt | <input type="checkbox"/> Fed Govt |
| Organization Name or Registered Fictitious Name | | Employer ID# (EIN) | Dun & Bradstreet ID# | |
| Philadelphia Energy Solutions Refining and Marketing, LLC | | | | |
| Individual Last Name | First Name | MI | Suffix | SSN |
| Bowman | Gary | P. | Sr. | |
| Additional Individual Last Name | First Name | MI | Suffix | SSN |
| | | | | |
| Mailing Address Line 1 | | Mailing Address Line 2 | | |
| 3144 West Passyunk Avenue | | | | |
| Address Last Line - City | State | ZIP+4 | Country | |
| Philadelphia | PA | 19145 | USA | |
| Client Contact Last Name | First Name | MI | Suffix | |
| Bowman | Gary | P. | Sr. | |
| Client Contact Title | | Phone | Ext | |
| President | | 610-636-4574 | | |
| E-mail Address | | | FAX | |
| Gbowman@northstar.com | | | | |

III. SITE INFORMATION

| | | | | | |
|-------------------------------------|---|--------------------------|--------------------------|--------------------------|-------|
| DEP Site ID# | Site Name | | | | |
| EPA ID# | Estimated Number of Employees to be Present at Site | | | | |
| Description of Site | | | | | |
| County Name | Municipality | City | Boro | Twp | State |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| County Name | Municipality | City | Boro | Twp | State |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Site Location Line 1 | | Site Location Line 2 | | | |
| Site Location Last Line – City | | State | ZIP+4 | | |
| Detailed Written Directions to Site | | | | | |

| | | | | |
|--|------------|------------------------|-------------------------|--|
| Site Contact Last Name | First Name | MI | Suffix | |
| Site Contact Title | | Site Contact Firm | | |
| Mailing Address Line 1 | | Mailing Address Line 2 | | |
| Address Last Line – City | | State | ZIP+4 | |
| Phone | Ext | FAX | E-mail Address | |
| NAICS Codes (Two- & Three-Digit Codes – List All That Apply) | | | 6-Digit Code (Optional) | |

Site to Client Relationship

IIIa. PROPERTY OWNER INFORMATION

Same as Tank Owner Identified in Section II. Different than Tank Owner Identified in Section II; identified below.

| | | | | |
|---|------------|------------------------|----------------------|---------|
| Organization Name or Registered Fictitious Name | | Employer ID# (EIN) | Dun & Bradstreet ID# | |
| Individual Last Name | First Name | MI | Suffix | SSN |
| Additional Individual Last Name | First Name | MI | Suffix | SSN |
| Mailing Address Line 1 | | Mailing Address Line 2 | | |
| Address Last Line – City | | State | ZIP+4 | Country |
| Property Owner Contact Last Name | First Name | MI | Suffix | |
| Property Owner Contact Title | | Phone | Ext | |
| E-mail Address | | | FAX | |

IV. FACILITY INFORMATION

| | | | | | | |
|--|--|--------------------------|---------|-----------|---------|---------|
| DEP Storage Tank Facility ID# | Facility Name | Facility Kind | | | | |
| Facility Location Line 1 (if different than Site Location) | | Facility Location Line 2 | | | | |
| Facility Location Last Line - City | | State ZIP+4 | | | | |
| Latitude/Longitude Point of Origin | Latitude | | | Longitude | | |
| | Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| Horizontal Accuracy Measure | Feet | --or-- | Meters | | | |
| Horizontal Reference Datum Code | <input type="checkbox"/> North American Datum of 1927 <input type="checkbox"/> North American Datum of 1983 <input type="checkbox"/> World Geodetic System of 1984 | | | | | |
| Horizontal Collection Method Code | | | | | | |
| Reference Point Code | | | | | | |
| Altitude | Feet | --or-- | Meters | | | |
| Altitude Datum Name | <input type="checkbox"/> The National Geodetic Vertical Datum of 1929 <input type="checkbox"/> The North American Vertical Datum of 1988 (NAVD88) | | | | | |
| Altitude (Vertical) Location Datum Collection Method Code | | | | | | |
| Geometric Type Code | | | | | | |
| Data Collection Date | | | | | | |
| Source Map Scale Number | | Inch(es) | = | Feet | | |
| | --or-- | Centimeter(s) | = | Meters | | |
| Flammable & Combustible Liquid Permit # (if applicable) | | | | | | |
| State or Municipality that Issued the Permit | | | | | | |

FACILITY OPERATOR INFORMATION

| | | | | | | |
|--|--------------------|---|--------------------|----------------------|--|--|
| <input type="checkbox"/> Same as Owner Identified in Section II. | | <input type="checkbox"/> Different than Owner Identified in Section II; identified below. | | | | |
| DEP Client ID# | Client Type / Code | | | | | |
| Organization Name or Registered Fictitious Name | | | Employer ID# (EIN) | Dun & Bradstreet ID# | | |
| Individual Last Name | First Name | MI | Suffix | SSN | | |
| Additional Individual Last Name | First Name | MI | Suffix | SSN | | |
| Mailing Address Line 1 | | Mailing Address Line 2 | | | | |
| Address Last Line - City | | State | ZIP+4 | Country | | |
| Client Contact Last Name | First Name | MI | Suffix | | | |
| Client Contact Title | | Phone | Ext | | | |
| E-mail Address | | | | FAX | | |

V. CHANGE OF OWNERSHIP INFORMATION

- All Tanks Changed Ownership at the Facility
 Some Tanks Changed Ownership at the Facility (List all applicable tank numbers in Section VI.)

OWNERSHIP CHANGE TO - Client information is noted in Section II.
OWNERSHIP CHANGE FROM (previous owner information)

Name _____
Employer ID# (EIN) or SSN _____
Mailing Address Line 1 _____
Mailing Address Line 2 _____
Address Last Line - City _____ State _____ ZIP+4 _____
Previous Facility ID# _____

| | |
|-----------------------|-------|
| DATE OF SALE/TRANSFER | _____ |
|-----------------------|-------|

SIGNATURE & CERTIFICATION OF PREVIOUS OWNER

Previous owner's signature is not available. As required, the "new" owner has attached a deed of transfer or other proof of ownership to this application. Yes No N/A

I have reviewed this form for submission to the Department. I certify under penalty of law as provided in 18 PA. C.S.A. §4903 (relating to false swearing) and 18 PA. C.S.A. §4904 (relating to unsworn falsification to authorities), that I have the authority to sign this Section for the transfer of permit or registration for the storage tanks listed herein. Further, I certify that all information provided in Section V is true, accurate and complete to the best of my knowledge and belief.

Type or Print Previous Owner Name _____

Previous Owner Signature _____ Title _____ Date _____

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Facility Name Phila Ref Girard Point

VI. STORAGE DESCRIPTION

Type or print legibly each regulated storage tank at this facility under your ownership.

Status Codes: C-Currently in Use T-Temporarily Out of Use E-Exempt
Type Codes: M-Manufactured F-Field Constructed

R-Removed P-Closed In Place

A. ABOVEGROUND TANKS. List all new tanks. If amending information, list only those tanks being amended. Copy this page if more lines are needed.

| Tank# | Prev Status | New Status | Type | Install Date (Mo/Day/Yr) | Change of Status Date (Mo/Day/Yr) | Capacity (Gallons) | Substance Code (Currently or Last Stored) | CERCLA Name (If Hazardous Substance) (If Other Petroleum Substance or Petroleum Based Mixture) | CAS# (If Hazardous Substance) | Exempt Reference Code |
|-------|-------------|------------|------|--------------------------|-----------------------------------|--------------------|---|--|-------------------------------|-----------------------|
| 019A | T | R | F | 01/01/1939 | 09/29/2021 | 3,045,000 | | Light Cycle Oil | | |
| 020A | T | R | F | 01/01/1939 | 09/29/2021 | 3,045,000 | | Untreated Distillate | | |
| A | | | | | | | | | | |
| A | | | | | | | | | | |
| A | | | | | | | | | | |
| A | | | | | | | | | | |
| A | | | | | | | | | | |
| A | | | | | | | | | | |
| A | | | | | | | | | | |

B. UNDERGROUND TANKS. List all new tanks. If amending information, list only those tanks being amended. Copy this page if more lines are needed.

| Tank# | Prev Status | New Status | Type | Install Date (Mo/Day/Yr) | Change of Status Date (Mo/Day/Yr) | Capacity (Gallons) | Substance Code (Currently or Last Stored) | CERCLA Name (If Hazardous Substance) (If Other Petroleum Substance or Petroleum Based Mixture) | CAS# (If Hazardous Substance) | Exempt Reference Code |
|-------|-------------|------------|------|--------------------------|-----------------------------------|--------------------|---|--|-------------------------------|-----------------------|
| | | | | | | | | | | |
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VII. ABOVEGROUND & UNDERGROUND NEW TANK INSTALLATION INFORMATION

The DEP Certified Installer should complete this section. New tanks listed in Section VI must also be listed in this Section. Write the Tank Number(s) and place an in the appropriate box for each component that was installed.

| Tank Construction & Corrosion Protection (1) | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Tank Manufacturer: | | | | | | | |
| Model: | | | | | | | |
| A. Unprotected Steel (Single Wall) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Cathodically Protected Steel (Galvanic) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C. Cathodically Protected Steel (Impressed Current) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. Unprotected Steel (Double Wall) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. Fiberglass (Single Wall) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| F. Fiberglass (Double Wall) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| G. Steel w/Plastic or Fiberglass Jacket or Double Wall Act 100 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| H. Steel With FRP Coating (Act 100 or Equivalent) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I. Steel with Lined Interior | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| J. Concrete | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| O. Cathodically Protected Double Wall Steel (Galvanic) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| P. Cathodically Protected Steel with Liner | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Q. Double Bottom (AST's Only) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| R. Molded Plastic Form (AST's Only) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| S. Stainless Steel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| T. Aluminum | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| U. Fire Protected Double Wall AST | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| V. Steel with Plastic or Fiberglass Jacket or Double Wall Act 100 with Anodes | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| W. Steel with FRP Coating (Act 100 or Equivalent) with Anodes | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| X. Molded Plastic Form (Double Wall) (AST's Only) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| Underground Piping Construction & Corrosion Protection – Single/Inner Wall (28) | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Primary (Inner) Piping Manufacturer: | | | | | | | |
| Model: | | | | | | | |
| A. Bare Steel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Cathodically Protected Metallic | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C. Copper | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. Fiberglass | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. Flexible (Non-Metallic) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| G. No Dispensing Piping | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 99. Other: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Underground Piping Construction & Corrosion Protection – Outer Wall (29) | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Secondary (Outer) Piping Manufacturer: | | | | | | | |
| Model: | | | | | | | |
| A. Bare Steel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Cathodically Protected Metallic | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. Fiberglass | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. Flexible (Non-Metallic) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| G. No Dispensing Piping | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| L. Poly-encased Stainless Steel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 99. Other: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| Aboveground Piping Construction & Corrosion Protection (3) | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| A. Carbon Steel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Cathodically Protected Metallic | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C. Copper | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. Single Wall Fiberglass | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. Single Wall Flexible (Non-Metallic) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| F. PVC | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| G. None | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I. Double Wall - Metallic Primary | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| J. Double Wall - Rigid (FRP) Primary | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| K. Double Wall - Flexible Primary | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| L. Stainless Steel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 99. Other: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Product Delivery System (4) | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|---------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| A. Suction: Check valve at pump | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Suction: Check valve at tank | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C. Pressure | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. Gravity fed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. None | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Spill Prevention (6) | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| S. Permanently installed and liquid tight (single-walled) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. Permanently installed and liquid tight (double-walled) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| N. None (AST only) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. Fill in less than 25 gallons (exempt) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| Overfill Prevention (7) | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| A. Overfill alarm | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| E. Fill in less than 25 gallons (exempt) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| N. None (AST only) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| S. Drop tube shutoff device | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Y. Yes (AST only) Type: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Emergency Containment (16) ASTs only | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| N. No - Explain: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Y. Yes (includes double-walled tanks with required appurtenances) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| V. Underground vault | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Secondary Containment (17) Single Wall ASTs only | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| N. No - Explain: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Y. Yes | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| V. Underground vault | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Stage I Vapor Recovery (19) USTs and ASTs when applicable | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| A. Coaxial | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. 2 Point | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| N. None or incomplete | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| Tank-top Containment Sumps Present (Product Piping Only) (21) USTs only | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| N. None – Explain: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| S. At some penetrations and liquid tight – Explain: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A. At all penetrations and liquid tight | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Under-dispenser Containment Present (22) USTs only | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| N. None – Explain: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| S. At some dispensers and liquid tight – Explain: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A. Under all dispensers and liquid tight | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Line Leak Detector Shuts Off Pump (23) USTs only | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| N. No | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Y. Yes | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Tank Supplies Emergency Generator (25) | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| N. No | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Y. Yes | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Facility ID# 51-33624

Facility Name Phila Ref Girard Point

VIII. ABOVEGROUND & UNDERGROUND TANK INFORMATION FOR PERMANENT CLOSURE

Write the Tank Number(s) and place an in the appropriate box for each tank that was removed or closed in place.

| Items 2 & 3 below apply to large ASTs and all USTs | Tank # | Tank # | Tank # | Tank # | Tank # | Tank # |
|---|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 019A | 020A | | | | |
| 1. Contamination suspected or observed and notification of contamination form was submitted to the appropriate DEP regional office. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Closure document submitted to the appropriate DEP regional office. | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Closure document kept on file by owner. | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. This registration is conditioned upon compliance with provisions of the Storage Tank and Spill Prevention Act of 1989, all applicable regulations, and with the requirements for obtaining and maintaining a permit required under this Act. I certify my responsibility for assuring the following permit requirements:

- Storage tank systems are in compliance with applicable administrative, technical and operational requirements as specified in Subchapter E for underground tanks or Subchapter F or G for aboveground tanks.
- Tank handling and inspection activities are performed by an individual possessing DEP certification in the appropriate category as required in Subchapters A and B.
- Underground storage tanks meet the applicable financial responsibility requirements of Subchapter H (relating to financial responsibility requirements).
- A Spill Prevention Response (SPR) Plan must be submitted to the appropriate DEP regional office for facilities that have aboveground storage tanks where the total capacity of all aboveground tanks is greater than 21,000 gallons.
- Other state and local permits required for operation of the tank system have been attained.

My signature represents to the Department that I own the storage tank(s) and am aware of the responsibilities and potential liabilities as an "owner" arising under the Storage Tank and Spill Prevention Act of 1989 and all applicable regulations. I am also advised that statements made on this registration is made subject to the penalties of 18 PA. C.S.A. Section 4904 relating to unsworn falsification to authorities.

Type or Print Owner Name Gary Bowman


Owner Signature

President
Title

11/01/2021
Date

Information & Invoices should be sent to:

- Tank Owner Contact
- Site Contact
- Facility Operator
- Other Responsible Party Identified Below

| Organization Name or Registered Fictitious Name | Employer ID# (EIN) | Dun & Bradstreet ID# |
|---|--------------------|----------------------|
| NorthStar Contracting Group, Inc. | | |

| Individual Last Name | First Name | MI | Suffix | SSN |
|----------------------|------------|----|--------|-----|
| Bowman | Gary | P. | Sr. | |

| Additional Individual Last Name | First Name | MI | Suffix | SSN |
|---------------------------------|------------|----|--------|-----|
| | | | | |

| Mailing Address Line 1 | Mailing Address Line 2 |
|------------------------|------------------------|
| 2250 East Adams Avenue | |

| Address Last Line - City | State | ZIP+4 | Country |
|--------------------------|-------|-------|---------|
| Philadelphia | PA | 19124 | USA |

| Contact Title | Phone | Ext. |
|---------------|--------------|------|
| President | 610-636-4574 | |

E-mail Address
Gbowman@northstar.com

Client to Site (Facility) Relationship

X. INSTALLER / REMOVER CERTIFICATION

This section must be completed by the certified tank handler(s) who is responsible for the installation or removal from service of the aboveground and underground storage tank systems listed in Section VI. Tank modification activity must be submitted on a "Tank Modification Report" form.

SIGNATURE & CERTIFICATION OF INSTALLER(S) / REMOVER(S)

As the certified tank handler responsible for the tank handling activities in the category or categories listed, I certify that all tank handling activities were conducted in compliance with the design, installation and operation standards of the Storage Tank and Spill Prevention Act of 1989 and all applicable regulations. I also certify, under penalty of law as provided in 18 PA C.S.A. 4904 (relating to unsworn falsification to authorities), that the information provided therein is true, accurate and complete to the best of my knowledge and belief.

| Tank# | Installer/Remover Name | Construction Standard | Individual Certification# | Certification Category | Company Certification# | Installer/Remover Signature | Date |
|-------|------------------------|-----------------------|---------------------------|------------------------|------------------------|-------------------------------|----------|
| 019A | Kristian Satterthwaite | | 5081 | AFR | 1557 | <i>Kristian Satterthwaite</i> | 10/28/21 |
| 020A | Kristian Satterthwaite | | 5081 | AFR | 1557 | <i>Kristian Satterthwaite</i> | 10/28/21 |
| | | | | | | | |

XI. INSPECTOR CERTIFICATION

This section must be completed by the DEP Certified Tank Inspector(s) who is responsible for verifying the installation standards for field constructed tanks and aboveground tanks greater than 21,000 gallons listed in Section VI. (Type or Print legibly) A DEP Certified Inspector may also be responsible for inspecting existing ASTs which are entering regulated service for the first time with no tank handling activities.

SIGNATURE & CERTIFICATION OF INSPECTOR(S)

As the certified tank inspector responsible for verifying tank handling activities and construction standards, I certify that the tank(s) listed below are constructed to appropriate industry standards and, if applicable, to manufacturer's specifications; that the tank(s) have been tested as required by industry standards; and that the tank(s) meet or exceed applicable design and operating standards; and are in compliance with the requirements of the Storage Tank and Spill Prevention Act of 1989, and all applicable regulations. I also certify under penalty of law as provided in 18 PA C.S.A. 4904 (relating to unsworn falsification to authorities), that the information provided herein is true, accurate and complete to the best of my knowledge and belief.

| Tank# | Inspector Name | Construction Standard | Individual Certification# | Certification Category | Company Certification# | Inspector Signature | Date |
|-------|----------------|-----------------------|---------------------------|------------------------|------------------------|---------------------|------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

XII. SITE SPECIFIC INSTALLATION PERMIT NUMBER

If a site-specific permit was required for a new tank installation, write the tank number(s) and permit number(s) in the appropriate box.

| Site-Specific Installation Permit | | | | | | | |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Tank# | Tank# | Tank# | Tank# | Tank# | Tank# | Tank# | Tank# |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Appendix B

Aboveground Storage Tank System Closure Report Forms





ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

51-33624
Facility I.D.

Former Philadelphia Refinery Point Breeze - Tank Group 7A
Facility Name

Philadelphia Philadelphia
Municipality County

January 22, 2024
Date Prepared

Kevin L. Long
Name of Person Submitting Report
(Please Print)

Terraphase Engineering
Company Name
(If Applicable)

Principal Consultant
Title

Closure Method (Check all that apply):

- AST Removal
- AST Closure-In-Place
- AST Change-In-Service

Site Assessment Results (Check all that apply):

- No Obvious Contamination - Sample Results Meet Standards/Levels
- No Obvious Contamination - Sample Results Do Not Meet Standards/Levels
- Obvious, Localized Contamination - Sample Results Meet Standards/Levels
- Obvious, Localized Contamination - Sample Results Do Not Meet Standards/Levels
- Obvious, Extensive Contamination

| CLOSURE METHOD(s): | | DEP Tank ID Number: | 019A | 020A | | |
|---|----------------------|---------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|
| Partial Storage Tank System Closure | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tank <input type="checkbox"/> N/A | a. Removal | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | b. Closure-in-Place | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | c. Change-in-Service | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Piping <input type="checkbox"/> N/A | a. Removal | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | b. Closure-in-Place | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | c. Change-in-Service | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dispenser <input checked="" type="checkbox"/> N/A | a. Removal | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | b. Closure-in-Place | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | c. Change-in-Service | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other _____ | a. Removal | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | b. Closure-in-Place | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | c. Change-in-Service | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Describe Closure Activities:

The tanks and associated piping were evacuated of any sale-able product, which was consolidated / bulked and eventually sold. All materials were either transferred to a slop oil tank through existing piping at the facility or via vacuum truck. When feasible the lines were drained back to the tank, and any product removed using a vacuum truck and stored with the other bulked products for future sale. The associated piping was then cleaned using copious amounts of water, high pressure water and /or purged with air or an inert gas such as nitrogen. Some heavy oil lines were flushed using cutter stock before using water. When required, a thermal Oxidizer was utilized to reduce the LEL inside the tank prior to opening and performing Confined Space Entry for cleaning. When necessary or prudent tanks and/or piping were also purged by pulling the internal atmosphere through activated carbon. Once the piping was cleaned, verification was conducted via a physical walk-down of the system, and painting valves and piping green as each was confirmed to be open and empty. The piping and utilities were then air gapped by the mechanical contractor (Nooter). Air gapping was followed by the simultaneous removal of the piping system and the cleaning the interior of the tank. Interior cleaning was conducted by one of three subcontracted industrial services companies (ACV Enviro, MPW, EISCO) and included when necessary the removal of floating roof seals (EFR/IFR). Pontoons were also inspected prior to demolition and if found to contain free product, they were evacuated and the product consolidated with the other like products stored for future sale. All cleaning water and rinsates were collected via vacuum truck and water was decanted at the wash pad leading to the on-site WWTPs. The remaining sludges and tank bottoms were stabilized with water absorbing polymers and or organic products such as kiln dried sawdust to ensure no free liquids in transit. The material was then loaded into intermodal containers (maximum 24 tons per container and 6 containers per rail car), placed on rail cars. Bills of lading were generated and sent to the railroad to schedule for pickup. The material was managed under 40 CFR 261.4(a)(24) verified recycling exemption and transported by rail to CWM in Sulphur, LA. Upon completion of the cleaning process the tanks and any remaining piping were dismantled, loaded into scrap recycling trucks and/or containers weighed at the facility scale and transported to a local scrap recycling company.

Yes N/A

11. Briefly describe the storage tank facility and the nature of the operations which were conducted at the facility (both historical and present) **including use of the storage tank systems:**

Tank Group 07A was located in the south-central portion of the Former Philadelphia Refinery
Complex. The tanks in the group held a variety of materials associated with the petroleum refining
process.

- 12. A site location and sampling map of the site, drawn to scale, is attached. See page 11 of 11.
- 13. Original, color photographs of the closure process involving any excavation are attached (i.e., inside of excavation/piping runs, pit water, containment structure and foundation showing condition).
- 14. An amended "Storage Tanks Registration/Permitting Application" Form was submitted to the DEP, Bureau of Environmental Cleanup and Brownfields, Division of Storage Tanks, P.O. Box 8762, Harrisburg, PA 17105-8762.

Date: 10 / 4 / 2021

Section I

15. If a release was confirmed, the appropriate regional office of DEP was notified by the owner or operator.

Date: ___ / ___ / _____ Office: _____

Yes N/A

16. If tanks were cleaned on-site:
- a. Briefly describe the disposition of usable product: Usable product was drained from the tanks prior to cleaning and transferred to other on-site storage tanks. The useable product was consolidated and sold. Any residual product was discharged to the on-site process sewer and wastewater treatment system.
 - b. Briefly describe the disposal of unusable product, sludges, sediments, and wastewater generated during cleaning. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal):
All tank bottoms to include sediments, sludges containing recoverable oil were managed in accordance with 40 CFR261.4(a)24. When shipped by rail to CWM in Sulphur, LA, the material was solidified using organic agents such as kilndried sawdust to ensure no free liquid during transnit, then placed into Inter-modal containers, loaded onto railcars, properly placarded and BOL's were generated and provided to the railroad. When transported to SAREX in West Deptford, NJ, the material was transporterd via vacuum truck and managed under the same exemption 40 CFR 261.4(a)(24). Any wastewater generated from cleaning was treated through the onsite waste water treatment plants (NPDES Permit #s 0012629 (Point Breeze) and 0011533 (Girard Point). Generator ID # PAD 0497910-98.
 - c. If tank contents were determined/deemed to be hazardous waste, provide:
 - (1) Generator ID Number: PAD 04979109
 - (2) Licensed Hazardous Waste Transporter Name and ID Number: Dana Transport, HW ID #40106; Chemical Waste Management - LA 0000777201, BNSF Railway Company - LA 000147272
17. If tanks were removed from the site for cleaning:
- a. Provide the name and permit number of the processing, treatment, storage or disposal facility performing the tank cleaning:
 - b. If tank contents were determined/deemed to be hazardous waste, provide:
 - (1) Generator ID Number: _____
 - (2) Licensed Hazardous Waste Transporter Name and ID Number: _____
18. Briefly describe the disposition of tanks/piping (Attach documentation of proper disposal):
All tanks and associated piping were cleaned, demolished and recycled for scrap value. Pipe and tank scrap was not segregated for transportation to the scrap facility; therefore, a specific quantity of piping or tank scrap was not detailed in disposal documentation.

Section I

- 19. If contaminated soil is excavated:
 - a. Briefly describe the disposition and amount _____ (tons) of contaminated soil. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal):

 - b. If contaminated soil is determined/deemed to be hazardous waste, provide:
 - (1) Generator ID Number: _____
 - (2) Licensed Hazardous Waste Transporter Name and ID Number: _____

Yes N/A


- 20. Briefly describe the disposition of and amount _____ (tons) of uncontaminated soil and debris (attach analyses):

- 21. If the tanks were "Closed-in-Place" provide information below:
 - a. Briefly describe the tank cleaning process: _____

 - b. If subcontracted, name and address of company that performed the tank cleaning:

 - c. How were tanks marked/labeled with permanent closure date: _____

I, Philadelphia Energy Solutions Refining And Marketing LLC, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the owner of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section I) is true, accurate and complete to the best of my knowledge and belief.



Signature of Tank Owner

2 / 7 / 2024

Date

Philadelphia Energy Solutions Refining And Marketing LLC

Company Name
(If applicable)

Anne R. Garr, Assistant Secretary

Title

ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION II. Tank Handling Information

Facility ID Number 51 - 33624
DEP Tank ID Number(s) 019A, 020A

Yes N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:
Removed tank and piping debris was segregated and loaded into roll-off containers during demolition. Soil excavation was not completed at the time of AST removal.

2. Briefly describe the method of piping system closure and the closure of the piping systems including the quantity and condition of the piping:
All the pertinent tank and piping system locations requiring sampling for closure purposes were documented, cleaned, demolished, and recycled for scrap value. In some cases, air gapping and removal of tank system piping prior to the demo of the tank was conducted. No problems or issues concerning the condition of the piping systems were reported.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:
None reported.

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:
Vapors were monitored via a LEL meter. The tanks and associated piping were evacuated of any sale-able product and then cleaned using copious amounts of water, high pressure water and /or purged with air or an inert gas such as nitrogen. Some heavy oil lines were flushed using cutter stock before using water. When required, a thermal oxidizer was utilized to reduce the LEL inside the tank prior to opening and performing Confined Space Entry for cleaning. When necessary or prudent tanks and/or piping were also purged by pulling the internal atmosphere through activated carbon.

5. If tanks were cleaned on-site:
a. Briefly describe the tank cleaning process: The subcontracted companies used to clean tanks were ACV ENVIRO, EISCO, and MPW. Tanks were drained, cut open, rinsed and scrubbed clean of any residuals before demolition. See additional detail on page 3.

b. If subcontracted, name and address of company that performed the tank cleaning:
NorthStar Contracting Group, Inc., 2250 East Adams Avenue, Philadelphia, PA 19124
ACV Enviro, 2527 Market Street, Aston PA 19014
EISCO, 288 Oak Grove Road, Swedesboro, NJ 08085
MPW, 9711 Lancaster Road SE, Hebron, OH 43025

6. If tanks were "Closed-in-Place", briefly describe how tanks were rendered inoperative, marked permanently closed with date, vented and secured to prevent unauthorized entry: _____

7. If contamination was suspected or observed, the "Notification of Contamination" form was submitted.

I, Kristian Satterthwaite, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to
(Print Name)
unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated
with the closure of the above referenced storage tank(s) and that the information provided by me in this closure report
(Section I) is true, accurate and complete to the best of my knowledge and belief.

Kristian Satterthwaite
Signature of Certified Remover

1 / 31 / 2024
Date

#5081
Remover Certification Number

#1557
Company Certification Number

JD2 Environmental, Inc.
Company Name

800 East Washington Street
Street

West Chester, PA 19380
City/Town, State, Zip

(610) 430-8151
Phone

ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # 019A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number 51 - 33624

A. Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).

Bedrock N/A feet below land surface Water 1 feet below land surface

B. Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).

Length of piping N/A feet

C. TANK SYSTEM REMOVED FROM THE GROUND/SITE

1). Was obvious contamination observed while excavating, sampling or removing the tank system?

NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.

YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

_____ -----> Complete item C.2. below.

2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?

YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.

NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.

D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE

Was obvious contamination observed during sampling, boring or assessing water depths?

NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.

YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.

E. If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Kevin Long _____, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn
(Print Name)
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



Signature of Person Performing Site Assessment

01 1251 2024

Date

Principal Consultant

Title of Person Performing Site Assessment

Terraphase Engineering, Inc.

Name of Company Performing Site Assessment

609-236-8171 x93

Telephone Number of Person Performing Site Assessment

N - Samples placed in soil sample vial without a preservative present.

Site Location and Sampling Map - Use this page or suitable facsimile to provide a large-scale map of the site where storage tank systems were closed. Scales between 1" = 10 and 1" = 100 feet frequently work well. Include the following information as each applies to the site: facility name and I.D., county, township or borough, property boundaries or area of interest, buildings, roads and streets with names or route numbers, utilities, location and ID number of storage tank systems removed including piping and dispensers, soil stockpile locations, excavations or other locations of product recovery, north arrow, approximate map scale and legend. Also, show depth and location of samples with sample ID numbers cross-referenced to the same ID numbers shown on Page 10 of 11.

Facility Name and ID: -

County:

Township/Borough: See attached Figure

Table 1 - 019A (GP R 250)

Sample/Analysis Information (Attachment for Section III.)

| Location | Sample ID | Start Depth (ft) | End Depth (ft) | Parameter | Analytical Method | Media | Results (mg/kg) | Detection Limit (mg/kg) | Date Sample Taken | Date Sample Analyzed |
|------------|-------------------|------------------|----------------|-------------------------|-------------------|-------------|-----------------|-------------------------|-------------------|----------------------|
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Benzo(b)fluoranthene | SW8270E | Soil | 0.58 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Lead | SW6010D | Soil | 350 | 2.35 | 12/15/2023 | 12/20/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Pyrene | SW8270E | Soil | 0.55 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Phenanthrene | SW8270E | Soil | 0.24 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Naphthalene | SW8270E | Soil | 0.19 | 0.04 | 12/15/2023 | 12/19/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Fluorene | SW8270E | Soil | 0.021 | 0.2 | 12/15/2023 | 12/19/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Benzo(g,h,i)perylene | SW8270E | Soil | 0.3 | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Benzo(a)pyrene | SW8270E | Soil | 0.45 | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Benzo(a)anthracene | SW8270E | Soil | 0.37 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Anthracene | SW8270E | Soil | 0.11 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | 1,2-Dichloroethane | SW8260D | Soil | ND | 0.00084 | 12/15/2023 | 12/20/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Chrysene | SW8270E | Soil | 0.42 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | 1,2-Dibromoethane | SW8260D | Soil | ND | 0.00042 | 12/15/2023 | 12/20/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Xylenes (total) | SW8260D | Soil | ND | 0.0017 | 12/15/2023 | 12/20/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | 1,3,5-Trimethylbenzene | SW8260D | Soil | ND | 0.0017 | 12/15/2023 | 12/20/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Benzene | SW8260D | Soil | 0.00028 | 0.00042 | 12/15/2023 | 12/20/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Cumene | SW8260D | Soil | ND | 0.00084 | 12/15/2023 | 12/20/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Ethyl Benzene | SW8260D | Soil | ND | 0.00084 | 12/15/2023 | 12/20/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Methyl tert-butyl ether | SW8260D | Soil | ND | 0.0017 | 12/15/2023 | 12/20/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | Toluene | SW8260D | Soil | ND | 0.00084 | 12/15/2023 | 12/20/2023 |
| GPR250-01 | GPR250-01-SS01 | 2.5 | 3 | 1,2,4-Trimethylbenzene | SW8260D | Soil | 0.00038 | 0.0017 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Xylenes (total) | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Benzo(g,h,i)perylene | SW8270E | Soil | 0.038 | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Pyrene | SW8270E | Soil | 0.045 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Phenanthrene | SW8270E | Soil | 0.028 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Naphthalene | SW8270E | Soil | ND | 0.039 | 12/15/2023 | 12/19/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Chrysene | SW8270E | Soil | 0.039 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Benzo(b)fluoranthene | SW8270E | Soil | 0.058 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Benzo(a)pyrene | SW8270E | Soil | ND | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Benzo(a)anthracene | SW8270E | Soil | 0.032 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Anthracene | SW8270E | Soil | ND | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | 1,2-Dibromoethane | SW8260D | Soil | ND | 0.00046 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Fluorene | SW8270E | Soil | ND | 0.2 | 12/15/2023 | 12/19/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Toluene | SW8260D | Soil | ND | 0.00091 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | 1,2,4-Trimethylbenzene | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | 1,2-Dichloroethane | SW8260D | Soil | ND | 0.00091 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | 1,3,5-Trimethylbenzene | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Lead | SW6010D | Soil | 36.3 | 2.24 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Benzene | SW8260D | Soil | ND | 0.00046 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Cumene | SW8260D | Soil | ND | 0.00091 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Ethyl Benzene | SW8260D | Soil | ND | 0.00091 | 12/15/2023 | 12/20/2023 |
| GPR250-02 | GPR250-02-SS01 | 1.5 | 2 | Methyl tert-butyl ether | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Pyrene | SW8270E | Soil | 0.48 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Toluene | SW8260D | Soil | ND | 0.00093 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Naphthalene | SW8270E | Soil | ND | 0.04 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Fluorene | SW8270E | Soil | ND | 0.2 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Chrysene | SW8270E | Soil | 0.28 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Benzo(g,h,i)perylene | SW8270E | Soil | 0.14 | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Benzo(b)fluoranthene | SW8270E | Soil | 0.31 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Benzo(a)pyrene | SW8270E | Soil | 0.27 | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Benzo(a)anthracene | SW8270E | Soil | 0.28 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Phenanthrene | SW8270E | Soil | 0.28 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | 1,2-Dibromoethane | SW8260D | Soil | ND | 0.00046 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Anthracene | SW8270E | Soil | 0.057 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Xylenes (total) | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | 1,2,4-Trimethylbenzene | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | 1,2-Dichloroethane | SW8260D | Soil | ND | 0.00093 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | 1,3,5-Trimethylbenzene | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Benzene | SW8260D | Soil | ND | 0.00046 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Cumene | SW8260D | Soil | ND | 0.00093 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Ethyl Benzene | SW8260D | Soil | ND | 0.00093 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Methyl tert-butyl ether | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01 | 2 | 2.5 | Lead | SW6010D | Soil | 19.8 | 2.36 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Anthracene | SW8270E | Soil | ND | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | 1,3,5-Trimethylbenzene | SW8260D | Soil | ND | 0.0019 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Benzo(a)anthracene | SW8270E | Soil | 0.035 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Benzo(a)pyrene | SW8270E | Soil | ND | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Benzo(b)fluoranthene | SW8270E | Soil | 0.042 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Benzo(g,h,i)perylene | SW8270E | Soil | ND | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Chrysene | SW8270E | Soil | 0.038 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Fluorene | SW8270E | Soil | ND | 0.2 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Naphthalene | SW8270E | Soil | ND | 0.039 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Pyrene | SW8270E | Soil | 0.069 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Phenanthrene | SW8270E | Soil | 0.056 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Lead | SW6010D | Soil | 17.2 | 2.31 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Xylenes (total) | SW8260D | Soil | ND | 0.0019 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | 1,2,4-Trimethylbenzene | SW8260D | Soil | ND | 0.0019 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | 1,2-Dibromoethane | SW8260D | Soil | ND | 0.00048 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | 1,2-Dichloroethane | SW8260D | Soil | ND | 0.00097 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Cumene | SW8260D | Soil | ND | 0.00097 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Benzene | SW8260D | Soil | ND | 0.00048 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Ethyl Benzene | SW8260D | Soil | ND | 0.00097 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Methyl tert-butyl ether | SW8260D | Soil | ND | 0.0019 | 12/15/2023 | 12/20/2023 |
| GPR250-03 | GPR250-03-SS01D | 2 | 2.5 | Toluene | SW8260D | Soil | ND | 0.00097 | 12/15/2023 | 12/20/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Benzo(a)anthracene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Benzo(a)pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Benzo(b)fluoranthene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Benzo(g,h,i)perylene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Chrysene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Fluorene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Naphthalene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Lead | SW6020B | Groundwater | 0.001609 | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Toluene | SW8260D | Groundwater | ND | 0.00075 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Phenanthrene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Methyl tert-butyl ether | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Ethyl Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Cumene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Benzene | SW8260D | Groundwater | ND | 0.0005 | | |

Table 1 - 019A (GP R 250)

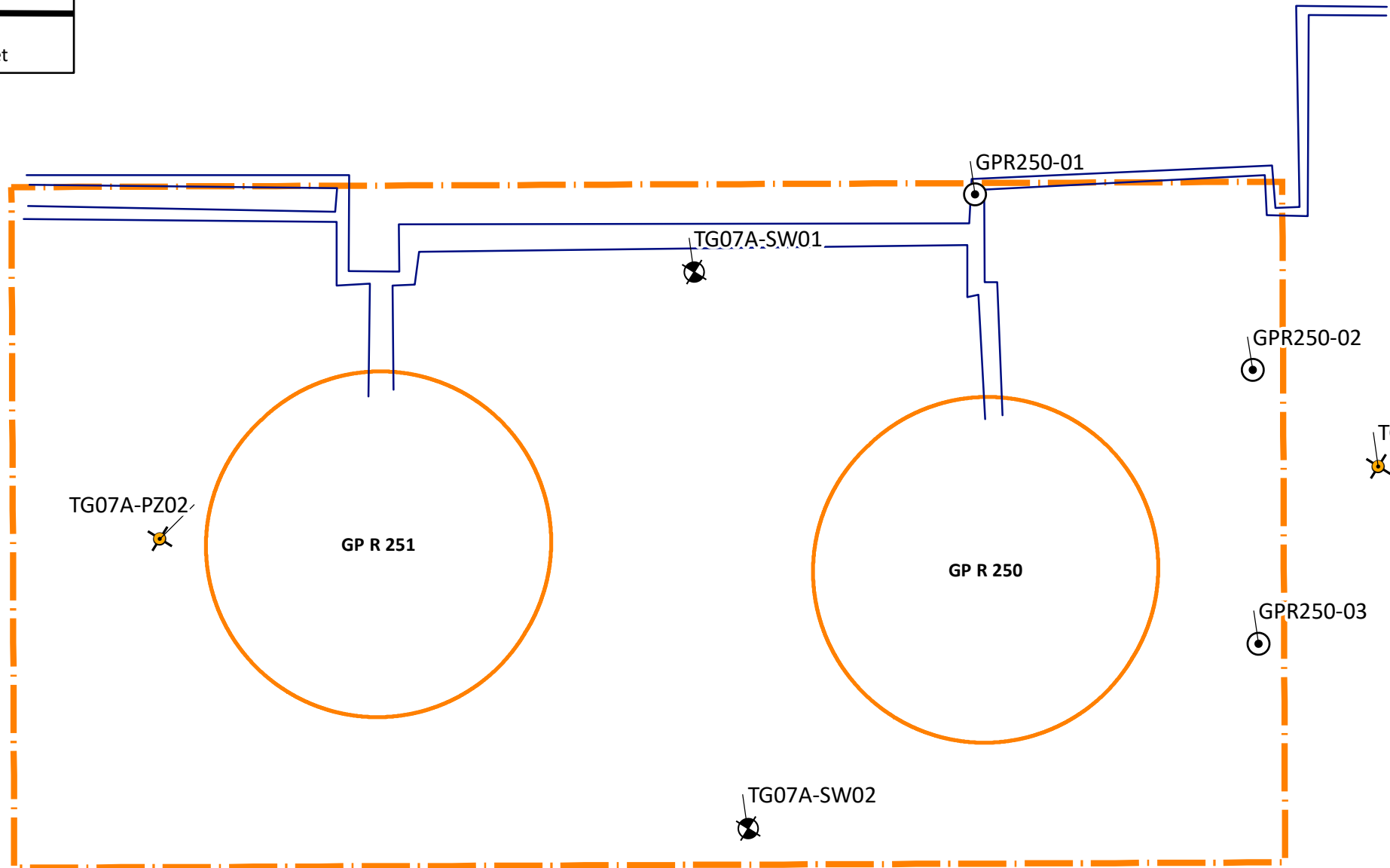
Sample/Analysis Information (Attachment for Section III.)

| Location | Sample ID | Start Depth (ft) | End Depth (ft) | Parameter | Analytical Method | Media | Results (mg/kg) | Detection Limit (mg/kg) | Date Sample Taken | Date Sample Analyzed |
|------------|--------------------|------------------|----------------|-------------------------|-------------------|-------------|-----------------|-------------------------|-------------------|----------------------|
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Anthracene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Benzo(a)anthracene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Benzo(a)pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Benzo(g,h,i)perylene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Benzo(b)fluoranthene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Fluorene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Phenanthrene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Naphthalene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Lead | SW6020B | Groundwater | 0.0004309 | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Chrysene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | 1,2-Dibromoethane | SW8011 | Groundwater | ND | 0.00001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | 1,2,4-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | 1,2-Dichloroethane | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Cumene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Ethyl Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Methyl tert-butyl ether | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | 1,3,5-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Toluene | SW8260D | Groundwater | ND | 0.00075 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Benzo(a)pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Benzo(b)fluoranthene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Benzo(g,h,i)perylene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Chrysene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Fluorene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Phenanthrene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Benzo(a)anthracene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Toluene | SW8260D | Groundwater | ND | 0.00075 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Naphthalene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | 1,3,5-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Anthracene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Xylenes (total) | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Lead | SW6020B | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | 1,2-Dichloroethane | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | 1,2-Dibromoethane | SW8011 | Groundwater | ND | 0.00001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Cumene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Ethyl Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Methyl tert-butyl ether | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | 1,2,4-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Benzo(a)pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Benzo(b)fluoranthene | SW8270ESIM | Groundwater | 0.00001 | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Benzo(a)anthracene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Pyrene | SW8270ESIM | Groundwater | 0.00002 | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Benzo(g,h,i)perylene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Chrysene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Fluorene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Phenanthrene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | 1,3,5-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Anthracene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Naphthalene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Toluene | SW8260D | Groundwater | ND | 0.00075 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Methyl tert-butyl ether | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Ethyl Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Benzene | SW8260D | Groundwater | 0.00019 | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | 1,2-Dichloroethane | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | 1,2,4-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | 1,2-Dibromoethane | SW8011 | Groundwater | ND | 0.00001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Lead | SW6020B | Groundwater | 0.0008006 | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Cumene | SW8260D | Groundwater | 0.00019 | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Xylenes (total) | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Phenanthrene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Benzo(a)anthracene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Benzo(a)pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Benzo(b)fluoranthene | SW8270ESIM | Groundwater | 0.00002 | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Benzo(g,h,i)perylene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Chrysene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Anthracene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Naphthalene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | 1,3,5-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Fluorene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Xylenes (total) | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Toluene | SW8260D | Groundwater | ND | 0.00075 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Methyl tert-butyl ether | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Ethyl Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Benzene | SW8260D | Groundwater | 0.0002 | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | 1,2-Dichloroethane | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | 1,2,4-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | 1,2-Dibromoethane | SW8011 | Groundwater | ND | 0.00001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Lead | SW6020B | Groundwater | 0.002074 | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Pyrene | SW8270ESIM | Groundwater | 0.00003 | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Cumene | SW8260D | Groundwater | 0.00019 | 0.0005 | 12/15/2023 | 12/21/2023 |

Notes:

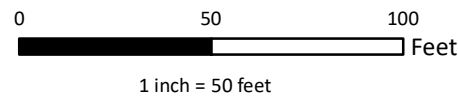
- D - Duplicate
- SS -- Soil Sample
- SW -- Surface Water
- PZ -- Piezometer

File: N:\GIS\Prj\044_001_PESRM-PES\WXS\AST\Work\Tank Group 07A\ForASTClosureReport\Figure 1 - 019A GP R 250.mxd 1/5/2024 Created by: M.Civilillo Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet



Legend

- Tank Group 07 Boundary
- Associated Piping
- PESRM Sample Location**
- Soil
- Surface Water Sample
- Piezometer



| | | |
|------------------------------|--|---|
| | CLIENT: Philadelphia Energy Solutions Refining and Marketing LLC | Site Location and Sampling Map 019A (GP R 250) |
| | PROJECT: Aboveground Storage Tank Closure | |
| PROJECT NUMBER: P044.001.002 | Figure 1 | |



Photograph 1:

View of Tank 019A (GP R 250) during demolition.



Photograph 2:

View of soils beneath Tank 019A (GP R 250) after demolition.

Product Movement and Waste Disposal Documentation (Tank 019A)



PES Project Load Ticket

Load Ticket: 16165

Date: 09 24 21

#5120103

Sold to: Allegheny Scrap
Location: TANK 750
Carrier: Allegheny

Non-Haz / ACM / Special Waste

Activity Location: _____

Steel / Ferrous

- No. 1 P+S
- No. 2 Heavy Melt
- Cast Iron
- Mixed
- Pipe
- Light Iron
- Re-Bar
- Other: Tank Plate

Non-Ferrous

- Insulated Copper Wire
- No. 1 Copper Wire
- Brass
- Aluminum
- Stainless, Grade _____
- Other Alloy, Grade _____
- Mixed
- Other: _____

Condition

- Prepared
- Unprepared
- Green Waste
- Concrete
- Masonry
- Mixed Masonry
- Wood Only
- Demo Debris (C&D)
- Dirt / Fill
- Sand Fill
- Crushed Stone
- Other: _____

Scale Ticket #: _____

Gross Weight: 70900 lbs

Tare Weight: 11400 lbs

Net Weight: 29360 lbs

NorthStar Rep. Signature: [Signature]

Received By: [Signature]

Waste Stream

- C&D Demolition Debris
- Non-Friable ACM
- Friable ACM
- PB WWTP Sludge
- GP WWTP Sludge
- Characteristic Haz Waste (flammable D001, corrosive D002, reactive D003, toxicity D004 -D043)
- Process Haz Waste
- Demo Debris (C&D)
- Non-Haz Waste (Solid)
- Non-Haz Waste (Liquid)
- PCB (Non-TSCA)
- PCB (TSCA)

Disposal Facility: _____

Carrier: _____

Truck #: _____

Container #: _____

Manifest #: _____

Profile / Approval #: _____

Scale Info

Scale Ticket #: _____

Gross Weight: _____

Tare weight: _____

Net weight: _____

Net Kilogram Conversion (PCB Only): _____

NorthStar Rep. Signature: _____

HILCO REDEVELOPEMENT PARTNERS
3144 W. PASSYUNK AVE

PHILADELPHIA PA, 19145

Ticket #: 20030415
Date: 09/24/2021 7:16 AM
Phone: () -
Fax: () -

Customer: HILCO
HILCO

Order Number: 001
SCRAP REMOVAL
Tons: 63842.216
Loads: 4260

DT260-50 - TRUCK 260 W/ TRAILER 50
CARLAD - CARLA DAVILA

Remarks: SCRAP REMOVAL

Signature: _____

| Material | Quantity | Price | Material \$ | Delivery \$ | Misc \$ | Tax \$ | Line Total \$ |
|----------|----------|-------|-------------|-------------|---------|--------|---------------|
| SCRAP | 14.68 tn | | | | | | |

Weight Information

| Material | Gross | Tare | Net |
|----------|----------|----------|----------|
| SCRAP | 70960.00 | 41600.00 | 29360.00 |

1955

THE MONSTER



ABOVEGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # 020A (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number 51 - 33624

A. Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).

Bedrock N/A feet below land surface Water 1 feet below land surface

B. Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).

Length of piping N/A feet

C. TANK SYSTEM REMOVED FROM THE GROUND/SITE

1). Was obvious contamination observed while excavating, sampling or removing the tank system?

NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records -----> Do not complete item C.2. below.

YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

_____ -----> Complete item C.2. below.

2). Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?

YES -----> Remove or remediate contaminated soil -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.

NO -----> Continue Interim Remedial Actions -----> See end of this section for options on submission and maintenance of closure records.

D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE

Was obvious contamination observed during sampling, boring or assessing water depths?

NO -----> Conduct confirmatory sampling -----> See end of this section for options on submission and maintenance of closure records.

YES -----> Report release to DEP within 24 hours -----> Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

Continue with corrective action -----> See end of this section for options on submission and maintenance of closure records.

E. If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

- (a) By the owners and operators who took the tank system out of service;
- (b) By the current owners and operators of the tank system site; or
- (c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, Kevin Long , hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn
(Print Name)
falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.



Signature of Person Performing Site Assessment

2 19 24

Date

Principal Consultant

Title of Person Performing Site Assessment

Terraphase Engineering, Inc.

Name of Company Performing Site Assessment

609-236-8171 x93

Telephone Number of Person Performing Site Assessment

N - Samples placed in soil sample vial without a preservative present.

Site Location and Sampling Map - Use this page or suitable facsimile to provide a large-scale map of the site where storage tank systems were closed. Scales between 1" = 10 and 1" = 100 feet frequently work well. Include the following information as each applies to the site: facility name and I.D., county, township or borough, property boundaries or area of interest, buildings, roads and streets with names or route numbers, utilities, location and ID number of storage tank systems removed including piping and dispensers, soil stockpile locations, excavations or other locations of product recovery, north arrow, approximate map scale and legend. Also, show depth and location of samples with sample ID numbers cross-referenced to the same ID numbers shown on Page 10 of 11.

Facility Name and ID: -

County:

Township/Borough: See attached Figure

Table 1 - 020A (GP R 251)

Sample/Analysis Information (Attachment for Section III.)

| Location | Sample ID | Start Depth (ft) | End Depth (ft) | Parameter | Analytical Method | Media | Results (mg/kg) | Detection Limit (mg/kg) | Date Sample Taken | Date Sample Analyzed |
|------------|-------------------|------------------|----------------|-------------------------|-------------------|-------------|-----------------|-------------------------|-------------------|----------------------|
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Toluene | SW8260D | Soil | ND | 0.00085 | 12/15/2023 | 12/20/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Xylenes (total) | SW8260D | Soil | ND | 0.0017 | 12/15/2023 | 12/20/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Naphthalene | SW8270E | Soil | ND | 0.039 | 12/15/2023 | 12/19/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Fluorene | SW8270E | Soil | ND | 0.19 | 12/15/2023 | 12/19/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Chrysene | SW8270E | Soil | 0.077 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Benzo(g,h,i)perylene | SW8270E | Soil | 0.043 | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Benzo(b)fluoranthene | SW8270E | Soil | 0.093 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Benzo(a)pyrene | SW8270E | Soil | 0.081 | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Benzo(a)anthracene | SW8270E | Soil | 0.078 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Phenanthrene | SW8270E | Soil | 0.092 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | 1,2,4-Trimethylbenzene | SW8260D | Soil | ND | 0.0017 | 12/15/2023 | 12/20/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Anthracene | SW8270E | Soil | ND | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Lead | SW6010D | Soil | 38 | 2.29 | 12/15/2023 | 12/20/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Pyrene | SW8270E | Soil | 0.13 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | 1,2-Dibromoethane | SW8260D | Soil | ND | 0.00042 | 12/15/2023 | 12/20/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | 1,2-Dichloroethane | SW8260D | Soil | ND | 0.00085 | 12/15/2023 | 12/20/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | 1,3,5-Trimethylbenzene | SW8260D | Soil | ND | 0.0017 | 12/15/2023 | 12/20/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Benzene | SW8260D | Soil | ND | 0.00042 | 12/15/2023 | 12/20/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Cumene | SW8260D | Soil | ND | 0.00085 | 12/15/2023 | 12/20/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Ethyl Benzene | SW8260D | Soil | ND | 0.00085 | 12/15/2023 | 12/20/2023 |
| GPR251-01 | GPR251-01-SS01 | 0 | 0.5 | Methyl tert-butyl ether | SW8260D | Soil | ND | 0.0017 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Anthracene | SW8270E | Soil | ND | 0.11 | 12/15/2023 | 12/19/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Pyrene | SW8270E | Soil | 0.033 | 0.11 | 12/15/2023 | 12/19/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Naphthalene | SW8270E | Soil | ND | 0.037 | 12/15/2023 | 12/19/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Fluorene | SW8270E | Soil | ND | 0.19 | 12/15/2023 | 12/19/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Chrysene | SW8270E | Soil | 0.022 | 0.11 | 12/15/2023 | 12/19/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Benzo(g,h,i)perylene | SW8270E | Soil | ND | 0.15 | 12/15/2023 | 12/19/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Benzo(b)fluoranthene | SW8270E | Soil | ND | 0.11 | 12/15/2023 | 12/19/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Benzo(a)pyrene | SW8270E | Soil | ND | 0.15 | 12/15/2023 | 12/19/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Benzo(a)anthracene | SW8270E | Soil | 0.022 | 0.11 | 12/15/2023 | 12/19/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Phenanthrene | SW8270E | Soil | ND | 0.11 | 12/15/2023 | 12/19/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Lead | SW6010D | Soil | 21.8 | 2.28 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Toluene | SW8260D | Soil | ND | 0.00091 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Methyl tert-butyl ether | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Ethyl Benzene | SW8260D | Soil | ND | 0.00091 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Cumene | SW8260D | Soil | ND | 0.00091 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Benzene | SW8260D | Soil | ND | 0.00045 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | 1,3,5-Trimethylbenzene | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | 1,2-Dichloroethane | SW8260D | Soil | ND | 0.00091 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | 1,2-Dibromoethane | SW8260D | Soil | ND | 0.00045 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | Xylenes (total) | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR251-02 | GPR251-02-SS01 | 3 | 3.5 | 1,2,4-Trimethylbenzene | SW8260D | Soil | ND | 0.0018 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Methyl tert-butyl ether | SW8260D | Soil | ND | 0.0019 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Ethyl Benzene | SW8260D | Soil | ND | 0.00094 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Cumene | SW8260D | Soil | ND | 0.00094 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Benzene | SW8260D | Soil | ND | 0.00047 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | 1,3,5-Trimethylbenzene | SW8260D | Soil | ND | 0.0019 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | 1,2-Dichloroethane | SW8260D | Soil | ND | 0.00094 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | 1,2-Dibromoethane | SW8260D | Soil | ND | 0.00047 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | 1,2,4-Trimethylbenzene | SW8260D | Soil | ND | 0.0019 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Anthracene | SW8270E | Soil | ND | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Lead | SW6010D | Soil | 40.1 | 2.32 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Phenanthrene | SW8270E | Soil | 0.046 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Pyrene | SW8270E | Soil | 0.077 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Naphthalene | SW8270E | Soil | 0.035 | 0.039 | 12/15/2023 | 12/19/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Fluorene | SW8270E | Soil | ND | 0.2 | 12/15/2023 | 12/19/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Chrysene | SW8270E | Soil | 0.063 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Benzo(b)fluoranthene | SW8270E | Soil | 0.084 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Benzo(a)pyrene | SW8270E | Soil | 0.076 | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Benzo(a)anthracene | SW8270E | Soil | 0.06 | 0.12 | 12/15/2023 | 12/19/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Xylenes (total) | SW8260D | Soil | ND | 0.0019 | 12/15/2023 | 12/20/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Benzo(g,h,i)perylene | SW8270E | Soil | 0.044 | 0.16 | 12/15/2023 | 12/19/2023 |
| GPR251-03 | GPR251-03-SS01 | 2.5 | 3 | Toluene | SW8260D | Soil | ND | 0.00094 | 12/15/2023 | 12/20/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Pyrene | SW8270E | Soil | 0.2 | 0.13 | 12/15/2023 | 12/19/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Benzo(a)anthracene | SW8270E | Soil | 0.15 | 0.13 | 12/15/2023 | 12/19/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Benzo(a)pyrene | SW8270E | Soil | 0.21 | 0.17 | 12/15/2023 | 12/19/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Benzo(b)fluoranthene | SW8270E | Soil | 0.23 | 0.13 | 12/15/2023 | 12/19/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Benzo(g,h,i)perylene | SW8270E | Soil | 0.13 | 0.17 | 12/15/2023 | 12/19/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Chrysene | SW8270E | Soil | 0.17 | 0.13 | 12/15/2023 | 12/19/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Naphthalene | SW8270E | Soil | 0.18 | 0.043 | 12/15/2023 | 12/19/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Anthracene | SW8270E | Soil | ND | 0.13 | 12/15/2023 | 12/19/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Phenanthrene | SW8270E | Soil | 0.12 | 0.13 | 12/15/2023 | 12/19/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Fluorene | SW8270E | Soil | ND | 0.22 | 12/15/2023 | 12/19/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | 1,2,4-Trimethylbenzene | SW8260D | Soil | ND | 0.0022 | 12/15/2023 | 12/21/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Toluene | SW8260D | Soil | ND | 0.0011 | 12/15/2023 | 12/21/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Methyl tert-butyl ether | SW8260D | Soil | ND | 0.0022 | 12/15/2023 | 12/21/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Ethyl Benzene | SW8260D | Soil | ND | 0.0011 | 12/15/2023 | 12/21/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Cumene | SW8260D | Soil | ND | 0.0011 | 12/15/2023 | 12/21/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Benzene | SW8260D | Soil | ND | 0.00054 | 12/15/2023 | 12/21/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | 1,3,5-Trimethylbenzene | SW8260D | Soil | ND | 0.0022 | 12/15/2023 | 12/21/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | 1,2-Dichloroethane | SW8260D | Soil | ND | 0.0011 | 12/15/2023 | 12/21/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | 1,2-Dibromoethane | SW8260D | Soil | ND | 0.00054 | 12/15/2023 | 12/21/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Lead | SW6010D | Soil | 66.7 | 2.63 | 12/15/2023 | 12/20/2023 |
| GPR251-04 | GPR251-04-SS01 | 1 | 1.5 | Xylenes (total) | SW8260D | Soil | ND | 0.0022 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Benzo(a)anthracene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Benzo(a)pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Benzo(b)fluoranthene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Benzo(g,h,i)perylene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Chrysene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Fluorene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Naphthalene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Lead | SW6020B | Groundwater | 0.001609 | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Toluene | SW8260D | Groundwater | ND | 0.00075 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Phenanthrene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Methyl tert-butyl ether | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Ethyl Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Cumene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215 | -- | -- | Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |

Table 1 - 020A (GP R 251)

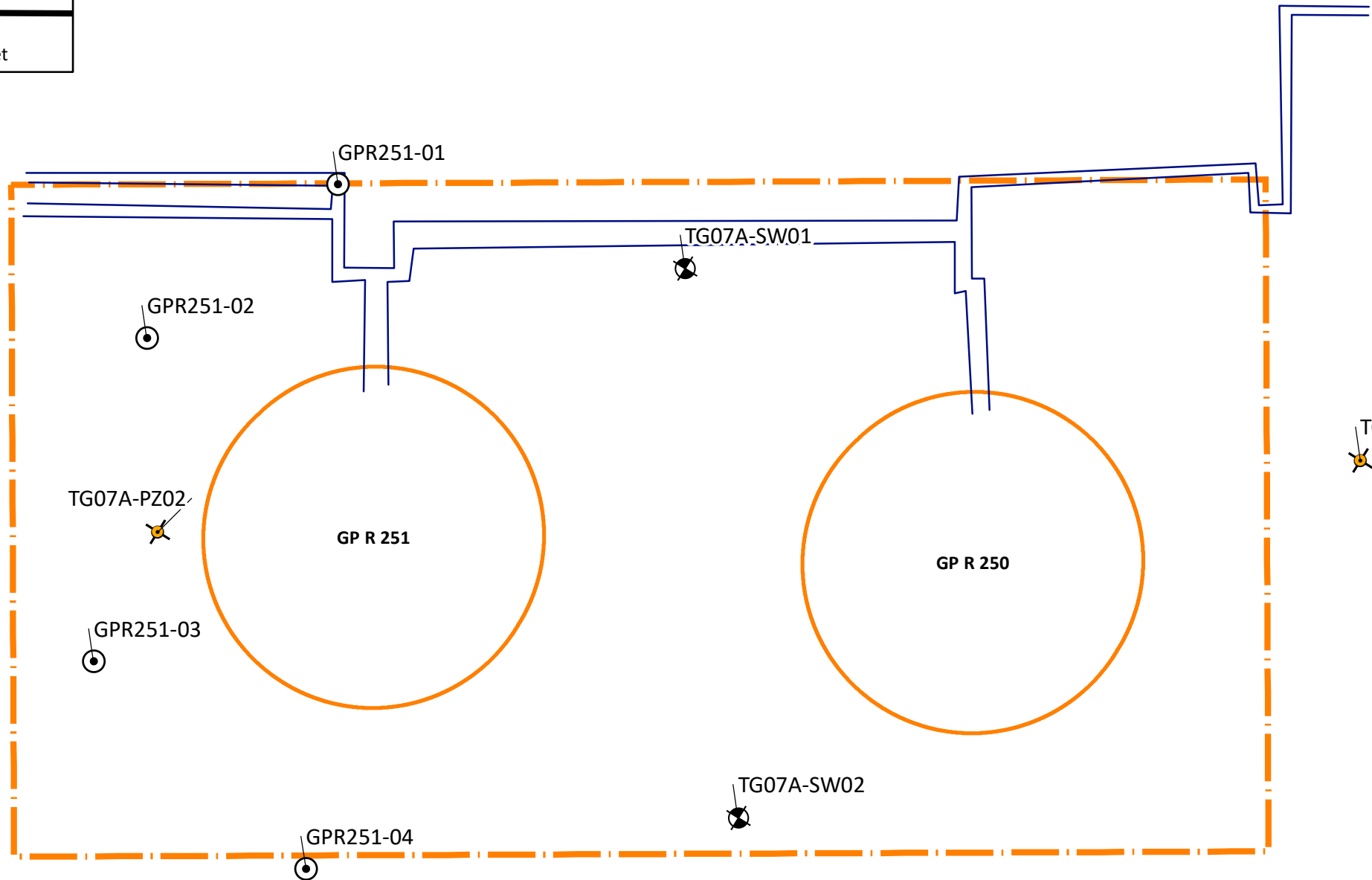
Sample/Analysis Information (Attachment for Section III.)

| Location | Sample ID | Start Depth (ft) | End Depth (ft) | Parameter | Analytical Method | Media | Results (mg/kg) | Detection Limit (mg/kg) | Date Sample Taken | Date Sample Analyzed |
|------------|--------------------|------------------|----------------|-------------------------|-------------------|-------------|-----------------|-------------------------|-------------------|----------------------|
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Anthracene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Benzo(a)anthracene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Benzo(a)pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Benzo(g,h,i)perylene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Benzo(b)fluoranthene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Fluorene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Phenanthrene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Naphthalene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Lead | SW6020B | Groundwater | 0.0004309 | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Chrysene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | 1,2-Dibromoethane | SW8011 | Groundwater | ND | 0.00001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | 1,2,4-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | 1,2-Dichloroethane | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Cumene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Ethyl Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Methyl tert-butyl ether | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | 1,3,5-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ01 | TG07A-PZ01-231215D | -- | -- | Toluene | SW8260D | Groundwater | ND | 0.00075 | 12/15/2023 | 12/22/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Benzo(a)pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Benzo(b)fluoranthene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Benzo(g,h,i)perylene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Chrysene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Fluorene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Phenanthrene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Benzo(a)anthracene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Toluene | SW8260D | Groundwater | ND | 0.00075 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Naphthalene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | 1,3,5-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Anthracene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Xylenes (total) | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Lead | SW6020B | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | 1,2-Dichloroethane | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | 1,2-Dibromoethane | SW8011 | Groundwater | ND | 0.00001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Cumene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Ethyl Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | Methyl tert-butyl ether | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-PZ02 | TG07A-PZ02-231215 | -- | -- | 1,2,4-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Benzo(a)pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Benzo(b)fluoranthene | SW8270ESIM | Groundwater | 0.00001 | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Benzo(a)anthracene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Pyrene | SW8270ESIM | Groundwater | 0.00002 | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Benzo(g,h,i)perylene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Chrysene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Fluorene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Phenanthrene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | 1,3,5-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Anthracene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Naphthalene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Toluene | SW8260D | Groundwater | ND | 0.00075 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Methyl tert-butyl ether | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Ethyl Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Benzene | SW8260D | Groundwater | 0.00019 | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | 1,2-Dichloroethane | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | 1,2,4-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | 1,2-Dibromoethane | SW8011 | Groundwater | ND | 0.00001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Lead | SW6020B | Groundwater | 0.0008006 | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Cumene | SW8260D | Groundwater | 0.00019 | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW01 | TG07A-SW01-231215 | -- | -- | Xylenes (total) | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Phenanthrene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Benzo(a)anthracene | SW8270ESIM | Groundwater | ND | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Benzo(a)pyrene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Benzo(b)fluoranthene | SW8270ESIM | Groundwater | 0.00002 | 0.00005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Benzo(g,h,i)perylene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Chrysene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Anthracene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Naphthalene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | 1,3,5-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Fluorene | SW8270ESIM | Groundwater | ND | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Xylenes (total) | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Toluene | SW8260D | Groundwater | ND | 0.00075 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Methyl tert-butyl ether | SW8260D | Groundwater | ND | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Ethyl Benzene | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Benzene | SW8260D | Groundwater | 0.0002 | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | 1,2-Dichloroethane | SW8260D | Groundwater | ND | 0.0005 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | 1,2,4-Trimethylbenzene | SW8260D | Groundwater | ND | 0.0025 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | 1,2-Dibromoethane | SW8011 | Groundwater | ND | 0.00001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Lead | SW6020B | Groundwater | 0.002074 | 0.001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Pyrene | SW8270ESIM | Groundwater | 0.00003 | 0.0001 | 12/15/2023 | 12/21/2023 |
| TG07A-SW02 | TG07A-SW02-231215 | -- | -- | Cumene | SW8260D | Groundwater | 0.00019 | 0.0005 | 12/15/2023 | 12/21/2023 |

Notes:

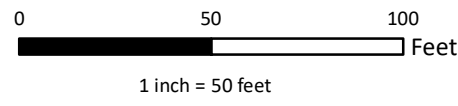
- D - Duplicate
- SS -- Soil Sample
- SW -- Surface Water
- PZ -- Piezometer

File: N:\GIS\Prj\044_001_PESRM-PES\WXS\AST\Work\Tank Group 07A\ForASTClosureReport\Figure 2 - 020A GP R 251.mxd 1/5/2024 Created by: M.Civilillo Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet



Legend

- Tank Group 07 Boundary
- Associated Piping
- PESRM Sample Location**
- Soil
- Surface Water Sample
- Piezometer



| | | |
|------------------------------|--|---|
| | CLIENT: Philadelphia Energy Solutions Refining and Marketing LLC | Site Location and Sampling Map 020A (GP R 251) |
| | PROJECT: Aboveground Storage Tank Closure | |
| PROJECT NUMBER: P044.001.002 | Figure 2 | |



Photograph 1:

View of Tank 020A (GP R 251) during demolition.



Photograph 2:

View Tank 020A (GP R 251) piping prior to demolition.



Photograph 3:

View of Tank 020A (GP R 251) during demolition.

Product Movement and Waste Disposal Documentation (Tank 020A)



PES Project Load Ticket

#S120103

Load Ticket: 16139

Date: 09-23-21

Sold to: Allegheny **Scrap**
Location: Tank 251
Carrier: Allegheny

Non-Haz / ACM / Special Waste

Activity Location: _____

Steel / Ferrous

- No. 1 P+S
- No. 2 Heavy Melt
- Cast Iron
- Mixed
- Pipe
- Light Iron
- Re-Bar
- Other: Tank Plate

- Non-Ferrous
- Insulated Copper Wire
 - No. 1 Copper Wire
 - Brass
 - Aluminum
 - Stainless, Grade _____
 - Other Alloy, Grade _____
 - Mixed
 - Other: _____

- Condition
- Prepared
 - Unprepared
 - Green Waste
 - Concrete
 - Masonry
 - Mixed Masonry
 - Wood Only
 - Demo Debris (C&D)
 - Dirt / Fill
 - Sand Fill
 - Crushed Stone
 - Other: _____

Waste Stream

- C&D Demolition Debris
- Non-Friable ACM
- Friable ACM
- PB WWTP Sludge
- GP WWTP Sludge
- Characteristic Haz Waste (flammable D001, corrosive D002, reactive D003, toxicity D004 -D043)
- Process Haz Waste
- Demo Debris (C&D)
- Non-Haz Waste (Solid)
- Non-Haz Waste (Liquid)
- PCB (Non-TSCA)
- PCB (TSCA)

Disposal Facility: _____

Carrier: _____

Truck #: _____

Container #: _____

Manifest #: _____

Profile / Approval #: _____

Scale Info

Scale Ticket #: _____

Gross Weight: _____

Tare weight: _____

Net weight: _____

Net Kilogram Conversion (PCB Only): _____

NorthStar Rep. Signature: _____

Scale Ticket #: _____

Gross Weight: 62760 lbs

Tare Weight: 42400 lbs

Net Weight: 20360 lbs

NorthStar Rep. Signature: [Signature]

Received By: [Signature]

HILCO REDEVELOPEMENT PARTNERS

3144 W. PASSYUNK AVE

PHILADELPHIA PA, 19145

Ticket #: 20030389

Date: 09/23/2021 9:23 AM

Phone: () -

Fax: () -

Customer: HILCO

HILCO

Order Number: 001

SCRAP REMOVAL

Tons: 63420.856

Loads: 4234

DT327-1109 - ALLEGHENY TRUCK 327-1109

CARLAD - CARLA DAVILA

Remarks: SCRAP REMOVAL

Signature: _____

| Material | Quantity | Price | Material \$ | Delivery \$ | Misc \$ | Tax \$ | Line Total \$ |
|----------|----------|-------|-------------|-------------|---------|--------|---------------|
| SCRAP | 10.18 tn | | | | | | |

Weight Information

| Material | Gross | Tare | Net |
|----------|----------|----------|----------|
| SCRAP | 62760.00 | 42400.00 | 20360.00 |

16139

THE MONSTER

BY

WILLIAM RAYNES

RAILROADS



Product Movement and Waste
Disposal Documentation (Tank Group
07A)

| Date | From Tank # | Product Qty. (gal) | Transferred To Tank # | Product |
|------------|----------------|--------------------|-----------------------|------------------------|
| 791 | | | | |
| 10/21/2020 | GP 791 | 0 | N/A | Benzene |
| 798 | | | | |
| 10/21/2020 | GP 798 | 0 | N/A | Benzene |
| 250 | | | | |
| 10/9/2020 | GP 250 | 7,046 | PB 219 | Untreated Distillate |
| 7/7/2021 | Tank 250 | 3,200 | Tank 843 | NA |
| 8/16/2021 | Tank 250/251 | 2,000 | Tank 219 | Oil/Water |
| 251 | | | | |
| 8/26/2020 | GP 251 | 7,046 | PB 219 | Untreated Distillate |
| 8/16/2021 | Tank 250/251 | 2,000 | Tank 219 | Oil/Water |
| 9/10/2021 | Tank 251 | 3,000 | Wash Pad | Oil/Water |
| 9/10/2021 | Tank 251 | 3,000 | Wash Pad | NA |
| 9/10/2021 | Tank 251 | 3,000 | Wash Pad | Water |
| 9/10/2021 | Tank 251 | 3,000 | Wash Pad | Water/Oil |
| 9/10/2021 | Tank 251 | 3,000 | Tank 219 | Oil |
| 494 | | | | |
| 6/28/2021 | Tank 494 | 2,800 | 843 | Oil |
| 6/28/2021 | Tank 494 | 2,800 | 843 | Oil |
| 6/28/2021 | Tank 494 | 2800 | 843 | Oil |
| 6/28/2021 | Tank 494 | 2800 | 843 | Oil |
| 6/28/2021 | Tank 494 | 2800 | 843 | Oil |
| 6/28/2021 | Tank 494 | 2800 | 843 | Oil |
| 6/29/2021 | Tank 494 | 3000 | 219 | Oil/Water |
| 6/29/2021 | Tank 137 & 494 | 3000 | 843 | Water/Oil |
| 6/29/2021 | Tank 137 & 494 | 3000 | 219 | Oil/Water |
| 7/2/2021 | Tank 494 | 3000 | 843 | Heavy Oil |
| 7/2/2021 | Tank 494 | 2500 | 843 | Recovery Oil and Water |
| 7/2/2021 | Tank 494 | 3000 | 843 | Oil |
| 7/2/2021 | Tank 494 | 3000 | Tank 843 | Heavy Oil |
| 7/2/2021 | Tank 494 | 2500 | Tank 843 | Recover Oil/Water |
| 7/2/2021 | Tank 494 | 3000 | Tank 843 | Oil |
| 7/16/2021 | Tank 494 | 300 | Tank 843 | Flush |
| 790 | | | | |
| 10/21/2020 | Tank 790 | 0 | N/A | Benzene |
| 792 | | | | |
| 10/21/2020 | Tank 792 | 0 | N/A | Cumene |
| 793 | | | | |
| 10/21/2020 | Tank 793 | 0 | N/A | Cumene |
| 794 | | | | |
| 11/6/2020 | Tank 794 | 11927.09375 | TK# 796 and totes | Solvent (glycol) |
| 799 | | | | |
| 10/16/2020 | Tank 799 | 305.8229167 | PB 191 | Benzene |
| 767 | | | | |
| 11/16/2020 | Tank 767 | 1761.54 | PB 191 | Recovered Oil |

TG07A
Disposition of residual Liquid/ Tank Bottoms

| Tank # | Primary Product | Reg. # | AMS # | Temp Out of Service or CIP Date | Removal Date | HSM Ship Date | Sold as Product | Remarks |
|---------|----------------------------|--------|-------|---------------------------------|--------------|---------------|-----------------|---|
| GP 250 | LCO | 019A | P-009 | 10/9/2020 | 9/29/2021 | N/A | N/A | Tank was empty and air gapped at turnover in June 2020 |
| GP 251 | Distillate, Untreated | 020A | P-010 | 8/26/2020 | 9/29/2021 | N/A | N/A | Tank was empty and air gapped at turnover in June 2020 |
| GP 494 | Main Frac Bottoms | 029A | P-039 | T -9/17/2021 | 4/14/2022 | Yes | N/A | Multiple Shipping Dates Managed as HSM and shipped by Rail to WM (see Shipment #'s 11 thru 15) |
| GP 767 | Recovered Oil | 046A | P-135 | T -11/16/2020 | 7/8/2022 | N/A | N/A | Tank had approx. 1800 gallons of product that was transferred to PB 191 and subsequently sold and shipped by barge - sludge stabilized and shipped by Rail to WM (see Shipment #11) |
| GP 790 | Benzene | 034A | P-017 | T-11/04/2019 | 2/21/2022 | N/A | N/A | Tank was empty and air gapped at turnover in June 2020 |
| GP 791 | Benzene | 006A | P-018 | T-11/04/2019 | 2/21/2022 | N/A | N/A | Tank was empty and air gapped at turnover in June 2020 |
| GP 792 | Cumene | 035A | P-019 | T - 4/22/2020 | 2/21/2022 | N/A | N/A | Tank was empty and air gapped at turnover in June 2020 |
| GP 793 | Cumene | 036A | P-020 | T - 4/24/2020 | 2/21/2022 | N/A | N/A | Tank was empty and air gapped at turnover in June 2020 |
| GP 794 | Tetraethylene Glycol | 037A | P-153 | T - 11/6/2020 | 2/21/2022 | N/A | Yes | Direct load to tank truck and sold to PBF - Residuals product was transferred after sale to 796 / washwater and residuals were fed to the GP WWTP to augment |
| GP 795 | Benzene | N/A | P-021 | T - 7/24/2009 | 2/21/2022 | N/A | Yes | Flow Thru Oprocess Tank Exempt from PADEP Registration Tank |
| GP 796 | Spent Tetraethylene Glycol | 038A | P-154 | T - 8/26/2021 | 8/26/2021 | N/A | N/A | Tank was RCRA Empty - Residual material and washwater were Drained to the GP WWTP to augment dwindling food source |
| GP 798 | Benzene | 007A | P-022 | T - 11/22/2019 | 2/21/2022 | N/A | N/A | Tank was empty and air gapped at turnover in June 2020 |
| GP 799 | Benzene | 039A | P-023 | T - 8/3/2017 | 2/21/2022 | N/A | N/A | Tank was empty and air gapped at turnover in June 2020 |
| GP 1088 | *Fresh Caustic | 033A | N/A | T - 10/15/2021 | 7/8/2022 | N/A | Yes | Consolidated with other fresh Caustic into GP 973 and Sold to PBF Wash Water was drained at the bundle pad (BOL's to be posted) |
| GP 1116 | Udex feed | 030A | P-001 | T - 12/19/2019 | 10/4/2021 | N/A | N/A | Tank was empty and air gapped at turnover in June 2020 |
| GP1117 | Udex feed | 005A | P-024 | T - 2/6/2014 | 10/4/2021 | N/A | N/A | Tank was empty and air gapped at turnover in June 2020 |

| | | Weight | | | | | | |
|-----------------------------|-----------------|--------|--------|------------------|------------------|------------|------------------|------------|
| Container # | Origin of Waste | Gross | Tare | Net | Facility Net | Rail Car # | Railcar Position | Over/Under |
| 5388 | Tank 219 | 76,500 | 27,700 | 24.40 | 25.16 | 91047 | A | 0.4 |
| 5166 | Tank 219 | 76,600 | 27,800 | 24.40 | 24.88 | 91047 | B | 0.4 |
| 5143 | Tank 219 | 76,600 | 27,800 | 24.40 | 25.21 | 91047 | C | 0.4 |
| 5365 | Tank 227 | 76,400 | 27,650 | 24.38 | 24.91 | 91047 | D | 0.4 |
| 5203 | Tank 227 | 76,300 | 27,800 | 24.25 | 24.77 | 91047 | E | 0.3 |
| 5056 | Tank 227 | 76,450 | 27,800 | 24.33 | 24.95 | 91047 | F | 0.3 |
| | | | | 146.15 | 149.88 | | | 2 |
| Running Total (tons) | | | | 11,305.21 | 11,363.13 | | | |

| | | Weight | | | | | | |
|-----------------------------|-----------------|--------|--------|------------------|------------------|------------|------------------|------------|
| Container # | Origin of Waste | Gross | Tare | Net | Facility Net | Rail Car # | Railcar Position | Over/Under |
| 5217 | Tank 843 | 76,350 | 27,900 | 24.23 | 24.22 | 91150 | A | 0.2 |
| 5141 | Tank 843 | 76,600 | 27,900 | 24.35 | 24.52 | 91150 | B | 0.4 |
| 5339 | Tank 843 | 76,700 | 27,600 | 24.55 | 24.05 | 91150 | C | 0.6 |
| 5075 | Tank 843 | 76,500 | 27,800 | 24.35 | 24.23 | 91150 | D | 0.4 |
| 5321 | Tank 843 | 76,050 | 27,650 | 24.20 | 24.21 | 91150 | E | 0.2 |
| 5225 | Tank 843 | 76,300 | 27,650 | 24.33 | 24.18 | 91150 | F | 0.3 |
| 5085 | Tank 843 | 76,100 | 27,750 | 24.18 | 24.18 | 91141 | A | 0.2 |
| 5109 | Tank 843 | 76,600 | 27,850 | 24.38 | 24.37 | 91141 | B | 0.4 |
| 5284 | Tank 843 | 76,500 | 27,800 | 24.35 | 24.36 | 91141 | C | 0.4 |
| 5239 | Tank 843 | 76,750 | 28,200 | 24.28 | 24.38 | 91141 | D | 0.3 |
| 5242 | Tank 843 | 77,100 | 28,350 | 24.38 | 24.39 | 91141 | E | 0.4 |
| 5257 | Tank 843 | 76,400 | 28,100 | 24.15 | 24.03 | 91141 | F | 0.1 |
| 5356 | Tank 843 | 75,950 | 27,600 | 24.18 | 24.07 | 91494 | A | 0.2 |
| 5793 | Tank 843 | 76,400 | 27,700 | 24.35 | 24.36 | 91494 | B | 0.4 |
| 5215 | Tank 843 | 76,650 | 27,750 | 24.45 | 24.49 | 91494 | C | 0.4 |
| 5269 | Tank 843 | 76,750 | 27,950 | 24.40 | 24.38 | 91494 | D | 0.4 |
| 5307 | Tank 843 | 76,550 | 27,750 | 24.40 | 24.34 | 91494 | E | 0.4 |
| 5228 | Tank 843 | 76,050 | 27,800 | 24.13 | 24.23 | 91494 | F | 0.1 |
| | | | | 437.60 | 436.99 | | | |
| Running Total (tons) | | | | 11,742.81 | 11,800.12 | | | |

| | | Weight | | | | | |
|-----------------------------|-----------------|--------|--------|------------------|------------------|------------|------------------|
| Container # | Origin of Waste | Gross | Tare | Net | Facility Net | Rail Car # | Railcar Position |
| 5146 | Tank 843 | 76,100 | 28,000 | 24.05 | 24.20 | 91063 | A |
| 5133 | Tank 843 | 76,600 | 27,800 | 24.40 | 24.50 | 91063 | B |
| 5334 | Tank 843 | 76,350 | 27,750 | 24.30 | 24.05 | 91063 | C |
| 5322 | Tank 843 | 76,150 | 27,700 | 24.23 | 22.83 | 91063 | D |
| 5052 | Tank 843 | 76,350 | 27,800 | 24.28 | 24.25 | 91063 | E |
| 5243 | Tank 843 | 68,450 | 28,100 | 20.18 | 20.19 | 91063 | F |
| 5190 | Tank 843 | 70,750 | 27,750 | 21.50 | 21.27 | 91133 | A |
| 5295 | Tank 843 | 72,050 | 27,950 | 22.05 | 21.97 | 91133 | B |
| 5291 | Tank 843 | 75,600 | 27,850 | 23.88 | 23.77 | 91133 | C |
| 5042 | Tank 843 | 73,150 | 27,750 | 22.70 | 21.71 | 91133 | D |
| 5267 | Tank 843 | 69,650 | 27,950 | 20.85 | 20.87 | 91133 | E |
| 5233 | Tank 843 | 70,300 | 28,000 | 21.15 | 20.86 | 91133 | F |
| 5337 | Tank 843 | 70,750 | 27,800 | 21.48 | 20.79 | 91085 | A |
| 5395 | Tank 843 | 74,450 | 27,650 | 23.40 | 24.80 | 91085 | B |
| 5360 | Tank 843 | 76,550 | 27,900 | 24.33 | 24.32 | 91085 | C |
| 5383 | Tank 843 | 75,850 | 27,600 | 24.13 | 24.21 | 91085 | D |
| 5272 | Tank 843 | 76,850 | 28,050 | 24.40 | 24.24 | 91085 | E |
| 5211 | Tank 843 | 76,750 | 27,950 | 24.40 | 24.45 | 91085 | F |
| | | | | 415.68 | 413.28 | | |
| Running Total (tons) | | | | 12,158.49 | 12,213.40 | | |

| <i>Over/Under</i> |
|-------------------|
| 0.1 |
| 0.4 |
| 0.3 |
| 0.2 |
| 0.3 |
| -3.8 |
| -2.5 |
| -2.0 |
| -0.1 |
| -1.3 |
| -3.2 |
| -2.9 |
| -2.5 |
| -0.6 |
| 0.3 |
| 0.1 |
| 0.4 |
| 0.4 |
| -16 |

| | | Weight | | | | | | |
|-----------------------------|-----------------|--------|--------|------------------|------------------|------------|------------------|------------|
| Container # | Origin of Waste | Gross | Tare | Net | Facility Net | Rail Car # | Railcar Position | Over/Under |
| 5198 | Tank 843 | 76,500 | 28,300 | 24.10 | 24.45 | 91075 | A | 0.1 |
| 5363 | Tank 843 | 76,550 | 27,900 | 24.33 | 24.21 | 91075 | B | 0.3 |
| 5137 | Tank 843 | 76,500 | 27,900 | 24.30 | 24.22 | 91075 | C | 0.3 |
| 5237 | Tank 843 | 77,350 | 28,700 | 24.33 | 24.43 | 91075 | D | 0.3 |
| 5130 | Tank 843 | 76,600 | 28,000 | 24.30 | 24.14 | 91075 | E | 0.3 |
| 5148 | Tank 843 | 76,650 | 27,950 | 24.35 | 24.58 | 91075 | F | 0.4 |
| 5077 | Tank 843 | 76,750 | 28,000 | 24.38 | 24.57 | 91058 | A | 0.4 |
| 2371 | Tank 843 | 76,900 | 28,100 | 24.40 | 24.49 | 91058 | B | 0.4 |
| 5317 | Tank 843 | 76,800 | 28,100 | 24.35 | 24.32 | 91058 | C | 0.4 |
| 5110 | Tank 843 | 76,800 | 28,000 | 24.40 | 24.29 | 91058 | D | 0.4 |
| 5003 | Tank 843 | 77,350 | 28,550 | 24.40 | 24.57 | 91058 | E | 0.4 |
| 5161 | Tank 843 | 76,300 | 27,950 | 24.18 | 24.12 | 91058 | F | 0.2 |
| 5304 | Tank 843 | 76,800 | 28,000 | 24.40 | 24.45 | 91475 | A | 0.4 |
| 5058 | Tank 843 | 76,700 | 28,000 | 24.35 | 24.40 | 91475 | B | 0.4 |
| 5207 | Tank 843 | 76,800 | 28,000 | 24.40 | 24.25 | 91475 | C | 0.4 |
| 5180 | Tank 843 | 76,550 | 27,900 | 24.33 | 24.33 | 91475 | D | 0.3 |
| 5236 | Tank 843 | 76,950 | 28,300 | 24.33 | 24.50 | 91475 | E | 0.3 |
| 5283 | Tank 843 | 77,000 | 28,200 | 24.40 | 24.45 | 91475 | F | 0.4 |
| | | | | 438.00 | 438.77 | 6 | | |
| Running Total (tons) | | | | 12,596.49 | 12,652.17 | | | |

1053315
 Bill of Lading (Page 1 of 2)

WY1041-011

764992

91047-2A 3A

DOCUMENT #

| TO | |
|--|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| FROM | |
|--|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

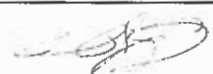
| ADDITIONAL INFORMATION |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/al 1241 |
| TICKET 58115 |

| SHIPPER'S INSTRUCTIONS |
|------------------------|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.40 | T |
| | | IM CONTAINER# EPIU225388 | | | |
| | | RAIL CAR# EPIX91047 | | NH | |
| | | ERG# 171 H039 | | | |

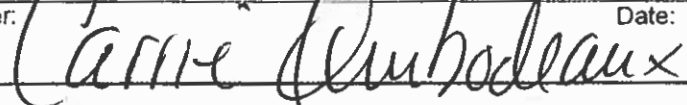
RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC Carrier: CSX Railroad Corp

Per:  Date: 12/23/2021 Per: Date:

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49 Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per:  Date: 1-24-22

Bill of Lading (Continuation Sheet) 2 of 2

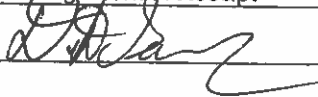
DOCUMENT# 91047-~~2~~ 3A

TO

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per:  | Date: 1-24-22 |

EPILID 300

TICKET 42

ID 653375
GROSS 85720 lb INBOUND
01:33PM 01/24/2022

OUTBOUND TICKET 42

| | | | |
|-------|----------|----------|---------|
| GROSS | 85720 lb | RECALLED | 85720 G |
| TARE | 35400 lb | | 35400 T |
| NET | 50320 lb | | 50320 N |

NET 25.16 TON

01:33PM 01/24/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET #

704992

WEIGHED BY

11521108

U11041-00

204999

Bill of Lading (Page 1 of 2)

91047-213 3B

DOCUMENT #

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |


| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/al 1241 | |
| | |
| TICKET 58116 | |

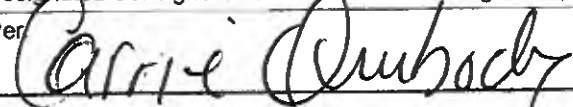
| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) PROFILE: 969843LA | CM | 24.40 | T |
| | | IM CONTAINER# EPIU225166 | | | |
| | | RAIL CAR# EPIX91047 | | | |
| | | | | NH | |
| | | ERG# 171 H039 | | | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|---|----------------------------|------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: |  | Date: 12/23/2021 | Per: |
| | | Date: | |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|---|---------------------------------------|---------|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: |  | Date: | 1-25-22 |

Bill of Lading (Continuation Sheet) 2 of 2

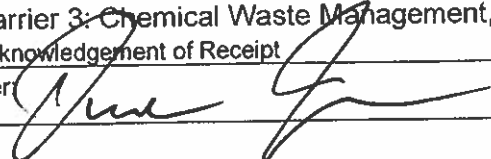
DOCUMENT# 91047-2X 3B

TO

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. | LA0000147272 (800) 336-2169 |
| Acknowledgement of Receipt | |
| Per:  | Date: 1-25-22 |

EPIU2231104

TICKET 8

3D 653168
GROSS 84840 lb INBOUND
08:35AM 01/25/2022

OUTBOUND TICKET 8

NETS 84840 lb RECALLED 84840 G
TARE 35080 lb 35080 T
NET 49760 lb 49760 N

NET 24.86 TON

08:53AM 01/25/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 764999

WEIGHED BY _____

153315
 Bill of Lading (Page 1 of 2)

W11041-5C

91047-XX 3C

764928

DOCUMENT #

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| TICKET 58117 |


SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UDM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.40 | T |
| | | IM CONTAINER# EPIU225143 | | | |
| | | RAIL CAR# EPIX91047 | | | |
| | | | | NH | |
| | | ERG# 171 H039 | | | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC Carrier: CSX Railroad Corp

Per:  Date: 12/23/2021 Per: Date:

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201 (a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per:  Date: 1-24-22

Bill of Lading {Continuation Sheet} 2 of 2

DOCUMENT# 91047-~~28~~ 3C

TO

FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Dennill Gear</i> | Date: <i>1-24-22</i> |

TK14 221415

TICKET BY

IP 683375
GROSS 86000 lb INBOUND
02:31AM 01/24/2022

OUTBOUND TICKET 17

| | | | |
|-------|----------|----------|---------|
| GROSS | 86000 lb | RECALLED | 86000 G |
| TARE | 35580 lb | | 35580 T |
| NET | 50420 lb | | 50420 N |

NET 25.21 TON

02:31AM 01/24/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

TK14
7601978

RECEIVING TICKET # _____

WEIGHED BY _____

153504
 W11047-30
 7641925
Bill of Lading (Page 1 of 2)

91047-2X 3D

DOCUMENT #

TO

FROM

Consignee: CHEMICAL WASTE MANAGEMENT INC
 Street: 7170 JOHN BRANNON ROAD
 EPA ID: LAD000777201
 City/State/Zip: SULPHUR LA 70665
 Phone: (337) 583-2169

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC
 Street: 3144 PASSYUNKAVE
 EPA ID: PAD 049791 098
 City/State/Zip: PHILADELPHIA, PA 19145
 Phone: (440) 228-1524

ADDITIONAL INFORMATION

SHIPPER'S INSTRUCTIONS


VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241
 TICKET 58118

SHIPPER'S INSTRUCTIONS

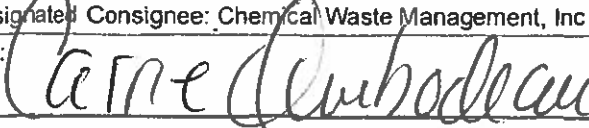
| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID, N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.38 | T |
| | | IM CONTAINER# EPIU225365 | | | |
| | | RAIL CAR# EPIX91047 | | | |
| | | | | NH | |
| | | ERG# 171 H039 | | | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination, it is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC
 Carrier: CSX Railroad Corp

Per:  Date: 12/23/2021
 Per: _____ Date: _____

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials
 Per:  Date: 1-24-22

Bill of Lading (Continuation Sheet) 2 of 2

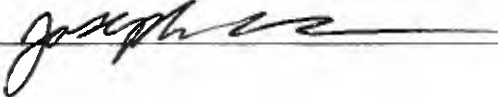
DOCUMENT# 91047-~~21X~~ 3D

TO

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per:  | Date: 11/24/2022 |

EP11122536

TICKET 11

TP 653504
GROSS 80940 IN INBOUND
DATE 01/24/2022

RETURNING TICKET 11

| | | | | | |
|-------|------------|-----|----------|-------|---|
| GROSS | 80940 | IN | RECALLED | 80940 | G |
| TARE | 31120 | IN | | 31120 | T |
| NET | 49820 | IN | | 49820 | N |
| NET | 24.91 | TON | | | |
| DATE | 01/24/2022 | | | | |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

7641975

RECEIVING TICKET # _____

WEIGHED BY _____

053504

0041047-3E

76499/

Bill of Lading (Page 1 of 2)

91047-~~2E~~ 3E

DOCUMENT #

TO

FROM

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

SHIPPER'S INSTRUCTIONS


| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| TICKET 58119 |

| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | ICM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.25 | T |
| | | IM CONTAINER# EPIU225203 | | | |
| | | RAIL CAR# EPIX91047 | | | |
| | | | | NH | |
| | | ERG# 171 H039 | | | |

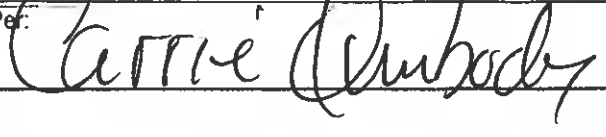
RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to Us usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC Carrier: CSX Railroad Corp

Per:  Date: 12/23/2021 Per: Date:

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per:  Date: 1-29-22

Bill of Lading {Continuation Sheet} 2 of 2

DOCUMENT# 91047-~~2E~~ 3E

TO

FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|------------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Joseph Connolly</i> | Date: <i>1/24/2022</i> |

EMC 2020

0001 31

TO 653504
GROSS 80760 lb INBOUND
DATE 01/24/2022

INBOUND TICKET 41

| | | | |
|-------|------------|----------|---------|
| GROSS | 80760 lb | RECEIVED | 80760 G |
| NET | 31220 lb | | 31220 T |
| WT | 49540 lb | | 49540 N |
| NET | 24.72 | 100 | |
| DATE | 01/24/2022 | | |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 70041991

WEIGHED BY _____

U41047-2

153108

Bill of Lading (Page 1 of 2)

91047-2X 3F

764989

DOCUMENT #

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| TICKET 58120 |

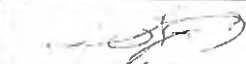
SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) PROFILE: 969843LA | CM | 24.33 | T |
| | | IM CONTAINER# EPIU225056 | | | |
| | | RAIL CAR# EPIX91047 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC Carrier: CSX Railroad Corp

Per:  Date: 12/23/2021 Per: Date:

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per:  Date: 1-24-22

Bill of Lading (Continuation Sheet) 2 of 2

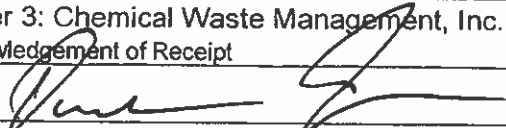
DOCUMENT# 91047-~~2~~ 3F

TO

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per:  | Date: 1-24-22 |

EPI4225016

TICKET 37

TO 653168
GROSS 84960 IBINBOUND
01:10PM 01/24/2022

OUTBOUND TICKET 37

GROSS 84960 lb RECALLED 84960 G
TARE 35060 lb 35060 T
NET 49900 lb 49900 N

NET 24.55 TON

01:10PM 01/24/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 764989

WEIGHED BY _____

Bill of Lading (Page 1 of 2)

0091150-3A
765623

91150-3A

DOCUMENT #

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70865 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1624 |

ADDITIONAL INFORMATION

VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 201.4(a) 1241

Ticket 56038

SHIPPER'S INSTRUCTIONS

HAZARDOUS MATERIAL NO. SHIPPING UNITS

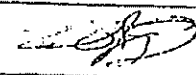
DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS

Type Volume UOM

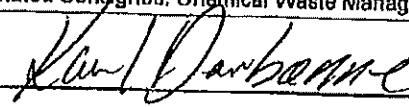

48,460

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 9698431A | CM | 24.23 | T |
| | | IM CONTAINER# EPIU226217 | | | |
| | | RAIL CAR# EPIX91160 | | | |
| | | ERG# 171 H039 | | | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and delivered as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to the usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party of any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per:  | Date: |
| Per: Luis Castro | Date: 2/8/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|--|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per:  | Date:  2-28-22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91150-3A

TO

FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2189 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 090 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|------------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Joseph Couville</i> | Date: <i>2/28/2022</i> |

69 304

111 01115111

TRUCK 35

TO 613504
GROSS WEIGHT 16110000
NET WEIGHT 10198200

UNLADDED WEIGHT 35

| | | |
|------------|----------|---------|
| NET WEIGHT | 16110000 | 79200 G |
| FARE | 30760 | 30760 T |
| NET | 48440 | 48440 N |

NET 26.22 TONS

DATE 02/28/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 16110000

WEIGHED BY _____

Bill of Lading (Page 1 of 2)

0041150-3B

765624

91150-3B

DOCUMENT #

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 080 |
| City/State/Zip: PHILADELPHIA, PA 19146 |
| Phone: (440) 220-1524 |

ADDITIONAL INFORMATION

VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/1241

Ticket 56039

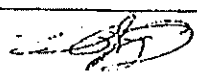
SHIPPER'S INSTRUCTIONS

NH

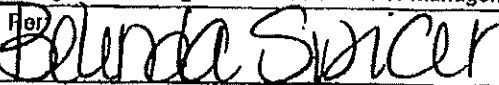
| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. B. III (BENZENE) PROFILE: 989843LA | CM | 24,35 | T |
| | | IM CONTAINER# EPIU225141 | | | |
| | | RAIL CAR# EPIX91150 | | | NH |
| | | ERG# 171 H039 | | | |

48,700

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per:  | Date: |
| Per: Luis Castro | Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per:  | Date: 2/28/22 |

Bill of Lading {Continuation Sheet} 2 of 2

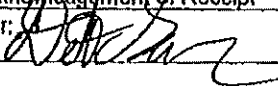
DOCUMENT# 91150-3B

TO

FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 088 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per:  | Date: 2-28-22 |

623013

1114 1111

1100136

IV 650075
02003 82940 11000000
010001 02/28/2022

01000001 TICKET 50

010001 82940 11 80000000 82940 G
010001 33900 11 33900 T
010001 49040 11 49040 N

010001 24.52 1101

010001 02/28/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 765624

WEIGHED BY _____

053315 004150-3C TLE5-L008

Bill of Lading (Page 1 of 2)

91150-3C

DOCUMENT #

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70686 |
| Phone: (337) 583-2189 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 898 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 220-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| Tidak Stoyo |

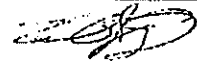
SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 9. III (BENZENE) PROFILE: 069843LA | CM | 24.55 | T |
| | | IM CONTAINER# EPIU225339 | | | |
| | | RAIL CAR# EPIX01160 | | | |
| | | ERG# 171 H039 | | | |

49,100

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading forms and conditions in the governing classification and the said terms and conditions.

| | |
|--|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per:  | Date: Per: Luis Castro Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: Belinda Spicer | Date: 2/08/22 |

Bill of Lading (Continuation Sheet) 2 of 2

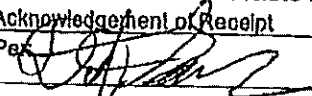
DOCUMENT# 01150-3C

TO

FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70865 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 000 |
| City/State/Zip: PHILADELPHIA, PA 19146 |
| Phone: (440) 228-1624 |

| | |
|--|---------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per:  | Date: 2-28-22 |

SECRET 14

01-15-81 02-28-79
01-15-81 02-28-79

SECRET 14

| | | | | |
|----------|-------|----|----------|---------|
| 82100 | 82100 | 16 | 82100 | 82100 G |
| 34000 | 34000 | 10 | 34000 | 34000 T |
| 48100 | 48100 | 10 | 48100 | 48100 N |
| 54000 | 54000 | 10 | | |
| 01-15-81 | | | 02-28-79 | |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 1765608

WEIGHED BY _____

053314

009115030
765010

Bill of Lading (Page 1 of 2)

91150-3D

DOCUMENT #

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70685 | |
| Phone: (337) 583-2169 | |

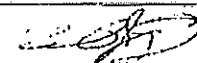
| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(e) 1241 |
| Ticket 56041 |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 9. III (BENZENE) PROFILE: 968643LA IM CONTAINER# EPIU225075 RAIL CAR# EPIX91150 ERG# 171 H039 | CM | 24.35 | T |
| | | | | 48,700 | |
| | | | | | NH |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination, it is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-------|----------------------------|--------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per:  | Date: | Per: Luis Castro | Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: Belinda Spicer | Date: 2/2/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91150-3D

TO

FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 503-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 040791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Vernon K Paul</i> | Date: <i>2-28-20</i> |

153804 0091150-3E
765635

Bill of Lading (Page 1 of 2)

91150-3E

DOCUMENT #

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70685 |
| Phone: (337) 683-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| Ticket 56042 |

SHIPPER'S INSTRUCTIONS

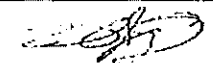
| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 9.III (BENZENE) PROFILE: 989843LA | CM | 24.20 | T |
| | | IM CONTAINER# EPIU225321 | | | |
| | | RAIL CAR# EPIX91150 | | NH | |
| | | ERG# 171 H039 | | | |

48,400

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery or said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC Carrier: CSX Railroad Corp

Per:  Date: Per: Luis Castro Date: 2/2/22

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (b) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per: Belinda Spicer Date: 3/1/22

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91150-3E

TO

FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 090 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 220-1524 |

| | |
|--|------------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Joseph Connolly</i> | Date: <i>3-11-2022</i> |

CP100# 5301

TICKET 24

TO 65309
GROSS 83620
NET 48420 03/01/2022

NET WEIGHT 24

| | | | |
|-----|-------|----|---------|
| NET | 83620 | lb | 83620 G |
| NET | 35200 | lb | 35200 T |
| NET | 48420 | lb | 48420 N |

NET 24.21 TON

03/01/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 7651035

WEIGHED BY _____

053314

009150-3F

765624

Bill of Lading (Page 1 of 2)

91150-317

DOCUMENT #

| |
|--|
| TO |
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| FROM |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 040791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

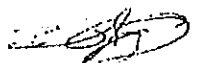
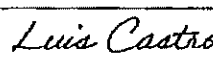
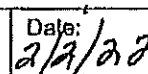
| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| Tickets 56013 |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.33 | T |
| | | IM CONTAINER# EPIU225225 | | | |
| | | RAIL CAR# EPIX91150 | | | |
| | | ERG# 171 H039 | | | |

48,660

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|---|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per:  | Date:  |
| Date:  | Date: 2/28/02 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (B) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: Belinda Spicer | Date: 2/28/02 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91150-3F

TO

FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 088 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Vernon K Paul, V. K. Paul</i> | Date: <i>2-28-22</i> |

CHU 0005

SECRET 40

LF 655376
GROSS: 02180 16780000
01:2901 02/20/2022

NETBOARD TUNCL 40

| | | |
|-------|----------------|---------|
| 0402: | 02180 16780000 | 82180 G |
| 1788: | 33820 16 | 33820 T |
| 081: | 48360 16 | 48360 N |

081 4.16 102

02/20/22 02 20 2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 760151196

WEIGHED BY _____

W53209 UM1141-3A 7656049

Bill of Lading (Page 1 of 2)

DOCUMENT# 01141-3A

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2168 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 090 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 220-1624 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| Ticket 55575 |

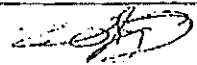
SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |

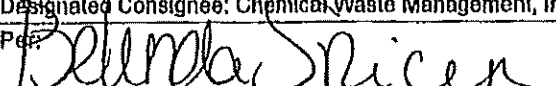
| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) PROFILE: 969843LA | CM | 24.18 | T |
| | | IM CONTAINER# EPIU225085 | | | |
| | | RAIL CAR# EPIX01141 | | | |
| | | ERG# 171 H039 | | | |

48,360

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-------|----------------------------|--------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per:  | Date: | Per: Luis Castro | Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (II) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per:  | Date: 3/1/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91141-3A

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 683-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 220-1624 |

| | |
|--|-----------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Joseph Corle</i> | Date: <i>3-1-2022</i> |

EPH 22-2085

TICKET 47

ID 653209
GROSS 83440 16THBOURD
12:26PM 03/01/2022

OUTBOUND TICKET 47

| | | | |
|-------|----------|----------|---------|
| GROSS | 83440 16 | RECALLED | 83440 G |
| NET | 35080 16 | | 35080 T |
| NET | 48360 16 | | 48360 N |

NET 24.18 160

12:26PM 03/01/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 71056a19

WEIGHED BY _____

W5355

004114-5B

765653

Bill of Lading (Page 1 of 2)

DOCUMENT # 91141-3B

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 683-2189 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 088 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

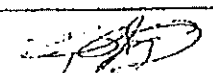
| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 281.4(a) 1241 |
| Ticket 55896 |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |


| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.38 | T |
| | | IM CONTAINER# EPIU225109 | | | NH |
| | | RAIL CAR# EPIX91141 | | | |
| | | ERG# 171 H039 | | | |

48,760

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-------|----------------------------|--------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per:  | Date: | Per: Lucia Castro | Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per:  | Date: 3/1/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91141-3B

TO

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70685 |
| Phone: (337) 583-2169 |

FROM

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 090 |
| City/State/Zip: PHILADELPHIA, PA 19146 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Verhoye Paul</i> | Date: <i>3-1-22</i> |

LP1465107

TICKET 53

TO 653155
GROSS 83900 LB
01:08PM 03/01/2022

NET 35160 T

| | | |
|-------|---------|------------|
| NET | 35160 T | 83900 G |
| GROSS | 48740 N | 35160 T |
| NET | 48740 N | |
| GROSS | | 03/01/2022 |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 765653

WEIGHED BY _____

153155

0091141-3C

1765637

Bill of Lading (Page 1 of 2)

DOCUMENT # 91141-3C

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70865 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| <i>Ticket 55593</i> |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| <i>NH</i> |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 989843LA | CM | 24.35 | T |
| | | IM CONTAINER# EPIU225284 | | | |
| | | RAIL CAR# EPIX91141 | | | |
| | | ERG# 171 H039 | | | |

48,700

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC Carrier: GSX Railroad Corp

Per: *[Signature]* Date: Per: *Luis Castro* Date: *2/2/22*

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per: Date:

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91141-3C

TO

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70865 |
| Phone: (337) 583-2169 |

FROM

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 090 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|--------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: Vernon K Paul <i>Vmk/p</i> | Date: 3-1-22 |

EP14225284

TICKET 26

TO 683155
GROSS 84140 lb INBOUND
09:18AM 03/01/2022

OUTBOUND TICKET 26

| | | | |
|---------|----------|------------|---------|
| SPRINT | 3,140 lb | REPAILED | 84140 G |
| TRUCK | 35420 lb | | 35420 T |
| TRUCK | 48720 lb | | 48720 N |
| TRUCK | 24.36 | TRUCK | |
| 10:00AM | | 03-01-2022 | |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 765637

WEIGHED BY _____

Bill of Lading (Page 1 of 2)

009114-30
745639

DOCUMENT # 91141-3D

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT . INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD00077201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (410) 228-1524 |

ADDITIONAL INFORMATION

VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241

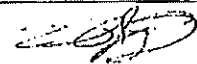
Tidat 55394

SHIPPER'S INSTRUCTIONS

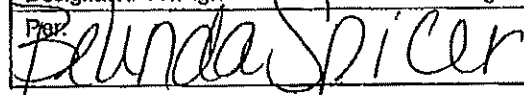
| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) PROFILE: 969843LA | CM | 24.28 | T |
| | | IM CONTAINER# EPIU225239 | | | |
| | | RAIL CAR# EPIX91141 | | | |
| | | ERG# 171 H039 | | | |

48,560

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per:  | Date: |
| Per: Luis Castro | Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per:  | Date: 3/1/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91141-3D

TO

FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (410) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Dorothy</i> | Date: <i>3-1-27</i> |

CY1400
TICKET 30 239

10 683375
GROSS 83020 1b JNE0000
09:56AM 03/01/2022

OUTBOARD TICKET 30
GROSS 83020 1b RECALLED 83020 G
TARE 34260 1b 34260 T
NET 48760 1b 48760 N
09:53AM 03/01/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 110560039

WEIGHED BY _____

052019

001141-3E

765659

Bill of Lading (Page 1 of 2)

DOCUMENT # 91141-3E

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD00077201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2168 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1624 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 | |
| Tide 55597 | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

HAZARDOUS MATERIAL NO. SHIPPING UNITS

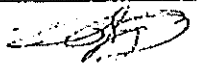
DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS

Type Volume UOM

48760

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.38 | T |
| | | IM CONTAINER# EPIU225242 | | | |
| | | RAIL CAR# EPIX91141 | | | |
| | | ERG# 171 H039 | | | |
| | | | | | |
| | | | | | |
| | | | | | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to the usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-------|----------------------------|--------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per:  | Date: | Per: Luis Castro | Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(e) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|--------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: Blunda Spicer | Date: 3/2/22 | | |

Bill of Lading {Continuation Sheet} 2 of 2

DOCUMENT# 91141-3E

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70865 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19146 |
| Phone: (440) 228-1524 |

| | |
|--|--------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 338-2169 | |
| Acknowledgement of Receipt | |
| Per: Vernon K PAW | Date: 3-2-22 |

CP1002-5242

TICKET 15

ID 653209
GROSS 84300 HUBBOUND
60:4000 03/02/2022

AIRBORNE TICKET 15

| | | | | | |
|-------|-------|---|-----------|-------|---|
| GROSS | 84300 | H | REFUELLED | 84300 | G |
| TARE | 35520 | H | | 35520 | T |
| NET | 48780 | H | | 48780 | N |

NET 27.39 TON

10:11w 03/02/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 176051059

WEIGHED BY _____

053315

001141-3F

765689

Bill of Lading (Page 1 of 2)

DOCUMENT # 91141-3F

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (410) 220-1524 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 | |
| <i>Ticket 25602</i> | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|------------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.15 | T |
| | | IM CONTAINER# EPIU225251 | | | |
| | | RAIL CAR# EPIX91141 | | | |
| | | ERG# 171 H039 | | | |
| | | | | <i>Net</i> | |

48,300

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|--------------|----------------------------|--------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: <i>[Signature]</i> | Date: 2-2-22 | Per: <i>Luis Castro</i> | Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|--------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: <i>Belinda Spicer</i> | Date: 3/3/20 | | |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91141-3F

TO

FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70865 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 220-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Damir Gory</i> | Date: <i>3.1.22</i> |

E144225251

TICKET 7

10 653374
GROSS 82380 161000000
NET 48060 03/03/2022

NET WEIGHT TICKET 7

| | | | | | |
|------|-------|----|----------|------------|---|
| NET | 82380 | 16 | RECALLED | 82380 | G |
| NET | 34320 | 16 | | 34320 | T |
| NET | 48060 | 16 | | 48060 | N |
| NET | 24,03 | | TARE | | |
| DATE | | | | 03/03/2022 | |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 1656189

WEIGHED BY _____

152314

0091494-2A

765000

Bill of Lading (Page 1 of 2)

DOCUMENT # 01494-2A

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70685 | |
| Phone: (337) 583-2189 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 220-1524 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 | |
| Tidelab 55603 | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Typo | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID, N.O.S. 9. III (BENZENE) PROFILE: 069843LA IM CONTAINER# EPIU226368 RAIL CAR# EPIX91494 ERG# 17-I H039 | CM | 24.1B | T |
| | | | | 48,360 | |
| | | | | | MH |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC Carrier: CSX Railroad Corp

Per: *[Signature]* Date: Per: Luis Castro Date: 2/2/22

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (b) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per: *[Signature]* Date: 2-25-22

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91494-2A

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 088 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 220-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Nevon K PAOL</i> | Date: <i>2-25-22</i> |

F774 208200
LIBRARY

NO. 65374
CLASS (02140) (07140080)
AL:5096 02/25/2092

RECORDED TICKET No
CLASS (02140) TO RECORDED 82140 G
LIB (34000) TO 34000 T
LIB (48140) TO 48140 N
LIB (5096) TO
AL:5096 02/25/2092

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 165600
WEIGHED BY _____

WBB

0091494-2B

765606

Bill of Lading (Page 1 of 2)

DOCUMENT # 91494-2B

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD00077201 | |
| City/State/Zip: SULPHUR LA 70685 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 048791 088 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| <i>Ticket 55604</i> |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.35 | T |
| | | IM CONTAINER# EPIU225793 | | | |
| | | RAIL CAR# EPIX01494 | | | |
| | | ERG# 171 H030 | | NH | |

48,700

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party of any line interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC Carrier: CSX Railroad Corp

Per: *[Signature]* Date: Per: *Luis Castro* Date: *2/2/22*

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per: *Karl Pabon* Date: *[Signature]* *2-28-22*

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 01404-2B

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70885 |
| Phone: (337) 503-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M I.L.C |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1624 |

| | |
|--|------------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Joseph Canillo</i> | Date: <i>2/28/2002</i> |

11, 3111

11/26/02

TICKET 12

TO: 658604
GROSS: 79480
NET: 48720

RECEIVING TICKET 12

| | | | | |
|--------|----------|-----|--------|---------|
| GROSS: | 79480 | 16 | 658604 | 79480 G |
| TARE: | 30760 | 15 | | 30760 T |
| NET: | 48720 | 15 | | 48720 N |
| NET: | 24.36 | 100 | | |
| DATE: | 11/26/02 | | | |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # _____

WEIGHED BY _____

153314

W41444-2C

765579

Bill of Lading (Page 1 of 2)

DOCUMENT # 91494-2C

| |
|--|
| TO |
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| FROM |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1624 |

| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| |
| |
| |

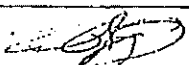
Ticket 55605

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |


| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|------|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.45 | T |
| | | IM CONTAINER# EPIU225215 | | | H039 |
| | | RAIL CAR# EPIX91494 | | | |
| | | ERG# 171 H039 | | | NH |

48,900

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that it is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-------|----------------------------|--------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per:  | Date: | Per: Luis Castro | Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49. Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|---------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per:  | Date: 2/25/22 | | |

Carrie Dubodaux 2-25-22

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91494-2C

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70685 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 220-1524 |

| | |
|--|-----------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Vernon K [Signature]</i> | Date: <i>12-25-20</i> |

EMILY JONES
TICKET 16

TO 653373
GROSS 83140 101101000
NET 48980 02/25/2092

DATE 02/25/2092

| | |
|-------|---|
| 83140 | G |
| 34160 | T |
| 48980 | N |

02/25/2092

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET #

765579

WEIGHED BY

1153504

0091444-211

765528

Bill of Lading (Page 1 of 2)

DOCUMENT # 91494-2D

8

| |
|--|
| TO |
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| FROM |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 090 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

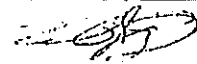
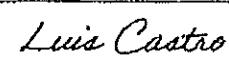
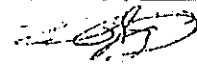
| |
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| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 201.4/a1 1241 |
| Ticket 55606 |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID, N.O.S. 9. III (BENZENE) | CM | 24.40 | T |
| | | PROFILE: 960843LA | | | |
| | | IM CONTAINER# EPIU225269 | | H039 | |
| | | RAIL CAR# EPIX91494 | | | |
| | | ERG# 171 H039 | | NH | |

48,800

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination, it is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|---|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per:  | Date:  |
| Date:  | Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (H) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: Carrie Dubodeaux | Date: 2-25-22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 01494-2D

TO.....FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD00077201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 048791 088 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|------------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Joseph Connolly</i> | Date: <i>2/25/2022</i> |

E114225
TICKET # 269

TO 653604
CITY 80020 HENRIE
STATE 09/25/2022

INTERIM TICKET 15

| | | |
|----|----------|---------|
| WT | 80020 LB | 80020 G |
| WT | 31260 LB | 31260 T |
| WT | 48760 LB | 48760 N |

WT 24.39 TON

DATE 09/25/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET #

765528

WEIGHED BY

053504

0091494-2E

Bill of Lading (Page 1 of 2)

765529

DOCUMENT # 91494-2E

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19146 | |
| Phone: (440) 228-1624 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 | |
| <i>Ticket 55607</i> | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

HAZARDOUS MATERIAL NO. SHIPPING UNITS

DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS

Type Volume UOM

48,800

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) | CM | 24.40 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU226307 | | | |
| | | RAIL CAR# EPIX91494 | | | |
| | | ERG# 171 H03B | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to the usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said forms and conditions.

| | | | |
|--|--------------------|----------------------------|---------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: | <i>[Signature]</i> | Date: | |
| Per: | <i>Luis Castro</i> | Date: | <i>2/2/22</i> |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Carrie Pembodley</i> | Date: <i>2-26-22</i> |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91494-2E

TO..... FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2189 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19146 |
| Phone: (440) 228-1524 |

| | |
|--|------------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2189 Acknowledgement of Receipt | |
| Per: <i>Joseph [Signature]</i> | Date: <i>2/25/2022</i> |

(714) 3, 2, 20 /
TICKET 03

TO: 05/25/08
FROM: 79780, 31100, 48680
05/25/08 05/25/08

RECEIVED TICKET 03

| | | | |
|----------|-------|----------|---------|
| 05/25/08 | 79780 | 05/25/08 | 79780 G |
| 05/25/08 | 31100 | 05/25/08 | 31100 T |
| 05/25/08 | 48680 | 05/25/08 | 48680 N |

05/25/08 05/25/08

05/25/08 05/25/08

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET #

765579

WEIGHED BY

0091494-2F

153315

265584

Bill of Lading (Page 1 of 2)

DOCUMENT # 91494-2F

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70066 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19146 | |
| Phone: (440) 220-1524 | |

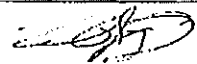
| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 | |
| Tides 3602A | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

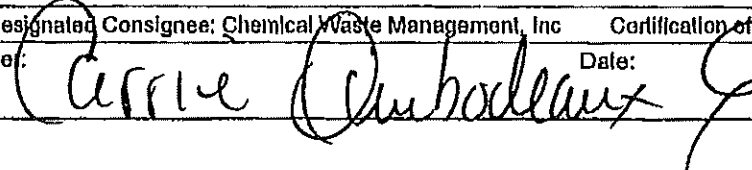
| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.13 | T |
| | | IM CONTAINER# EPIU225228 | | | |
| | | RAIL CAR# EPIX91494 | | | |
| | | ERG# 171 H039 | | | |

48,260

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-------|----------------------------|--------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per:  | Date: | Per: Luis Castro | Date: 2/2/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(n)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|---------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per:  | Date: 2-25-22 | | |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 81494-2F

TO..... FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 220-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Dimitri</i> | Date: <i>2-25-22</i> |

EPI/205
TICKET 25 228

ID 653375
GROSS 82740 TD (TIN) (TIN)
NET 48460 02/25/2022

QUANTITY TICKET 24
GROSS 82740 TD (TIN) (TIN) 82740 G
NET 48460 TD (TIN) (TIN) 34280 T
NET 48460 TD (TIN) (TIN) 48460 N
NET 48460 TD (TIN) (TIN)
GROSS 82740 TD (TIN) (TIN)

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

165514

RECEIVING TICKET # _____

WEIGHED BY _____

Patrick Dauria

From: Doan, Janet <JDoan@wm.com>
Sent: Tuesday, March 29, 2022 10:21 AM
To: Patrick Dauria
Cc: Rhyne, John
Subject: EPIX 91085
Attachments: 91085.pdf

Good morning!

I hope you are having a wonderful day today 😊

Attached are BOLs and weight tickets for 91085.

5395 and 5383 were invoiced at solidification rate

all others at solid rate

Thank you for your business.

JANET DOAN

Scheduling Coordinator

Gulf Coast Area

GulfCoastScheduling@wm.com

jdoan@wm.com

 APPROVED

Main: 337.583.3700

Direct: 337.583.3745

7170 John Brannon Road

Sulphur, LA 70665



153155 09/10/20-011 764079

Bill of Lading (Page 1 of 2)

DOCUMENT # 91085-3A

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT Inc |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| Ticket 6/143 |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) PROFILE: 969843LA IM CONTAINER# EPIU225337 RAIL CAR# EPIX91085 ERG# 171 H039 | CM | 21.48 | T |
| | | | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per: <i>[Signature]</i> | Date: 2/18/2022 |
| Per: Luis Castro | Date: 2/18/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: Belinda Spicer | Date: 3/25/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91085-3A

TO..... FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>V. Paul</i> | Date: <i>3-25-22</i> |

EPH0000001

TICKET #

IN 68505
SULPHUR 76360
01-5496 01-25/2022

76360
34780

Net - 41580
2079

41580 Net

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 160079

WEIGHED BY _____

W533515 0091085-3B 76del01

Bill of Lading (Page 1 of 2)

DOCUMENT # 91085-3B

TO

Consignee: CHEMICAL WASTE MANAGEMENT, Inc
 INC
 Street: 7170 JOHN BRANNON ROAD
 EPA ID: LAD000777201
 City/State/Zip: SULPHUR LA 70865
 Phone: (337) 583-2169

FROM

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC
 Street: 3144 PASSYUNKAVE
 EPA ID: PAD 049791 098
 City/State/Zip: PHILADELPHIA, PA 19145
 Phone: (440) 228-1524

ADDITIONAL INFORMATION

VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/al 1241

Tickets 6/11/44

SHIPPER'S INSTRUCTIONS

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) | CM | 23.40 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225395 | | | |
| | | RAIL CAR# EPIX91085 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to Us usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC Carrier: CSX Railroad Corp

Per: *[Signature]* Date: 2/18/2022 Per: *Luis Castro* Date: *2/18/22*

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per: *DeLinda Spivey* Date: *3/28/22*

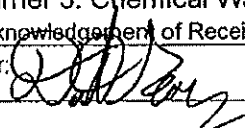
Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91085-3B

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per:  | Date: 5-28-22 |

U55282141

TICKET 54

TO 65375
GROSS 80860 16 INBOUND
01:33PM - 03/28/2022

OUTBOUND TICKET 54

| | | | | | |
|---------|-------|-----|--------------|-------|---|
| GROSS | 80860 | 16 | IN COLLECTED | 80860 | G |
| TARE | 33960 | 16 | | 33960 | T |
| NET | 46900 | 16 | | 46900 | N |
| NET | 23.45 | 108 | | | |
| 02:50PM | | | 03/28/2022 | | |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 766661

WEIGHED BY _____

1.5

053315
 WY11085-3C
 766061
Bill of Lading (Page 1 of 2)

DOCUMENT # 91085-3C

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| <i>Ticket 6/1/15</i> |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) PROFILE: 969843LA | CM | 24.33 | T |
| | | IM CONTAINER# EPIU225360 | | | |
| | | RAIL CAR# EPIX91085 | | | |
| | | ERG# 171 H039 | | NA | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per: <i>[Signature]</i> | Date: 2/18/2022 |
| Per: <i>Luis Castro</i> | Date: 2-18-22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spicer</i> | Date: <i>3/25/22</i> |

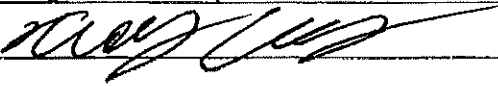
Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91085-3C

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70685 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per:  | Date: 3-25-22 |

EP111225 360

TICKET 19

10 653375
GROSS 82860 INBOUND
08:58AM 03/25/2022

OUTBOUND TICKET 19

| | | | | | |
|---------|-------|-----|----------|------------|---|
| GROSS | 82860 | 10 | RECALLED | 82860 | G |
| TARE | 34220 | 10 | | 34220 | T |
| NET | 48640 | 10 | | 48640 | N |
| NET | 24.32 | 100 | | | |
| 10:51AM | | | | 03/25/2022 | |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 76001

WEIGHED BY _____

053315
 W11085-3D
 766077
Bill of Lading (Page 1 of 2)

DOCUMENT # 91085-3D

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| <i>Ticket 61146</i> |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.13 | T |
| | | IM CONTAINER# EPIU225383 | | | |
| | | RAIL CAR# EPIX91085 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|----------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: <i>[Signature]</i> | Date: 2/18/2022 | Per: <i>Luis Castro</i> | Date: <i>2/18/22</i> |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spicer</i> | Date: <i>3/25/22</i> |

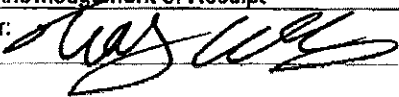
Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91085-3D

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per:  | Date: 3-25-22 |

E-PI 61222205
TICKET 46

IB 653375
GROSS 82380 lb INBOUND
12:58PM 03/25/2022

OUTBOUND TICKET 46

| | | | |
|-------|----------|----------|---------|
| GROSS | 82380 lb | RECALLED | 82380 G |
| TARE | 33960 lb | | 33960 T |
| NET | 48420 lb | | 48420 N |

NET 26.21 TON

12:24PM 03/25/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 762077

WEIGHED BY _____

053155

0091085-3E

764089

Bill of Lading (Page 1 of 2)

DOCUMENT # 91085-3E

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| <i>Tickets Cell 47</i> |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.40 | T |
| | | IM CONTAINER# EPIU225272 | | | |
| | | RAIL CAR# EPIX91085 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per: <i>[Signature]</i> | Date: 2/18/2022 |
| Per: <i>Luis Castro</i> | Date: 2/18/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Delinda Spicer</i> | Date: 2/28/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91085-3E

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Vernon K Paul</i> | Date: <i>3-28-22</i> |

TKU 25012

TICKET #
TO: 79240
FROM: 30760
DATE: 05/28/2002

| | | | |
|-------|------------|------------|---------|
| GROUP | 79240 | TO: 000000 | 79240 G |
| GROUP | 30760 | TO: 000000 | 30760 T |
| NET | 48480 | TO: 000000 | 48480 N |
| NET | 24240 | TO: 000000 | |
| DATE | 05/28/2002 | | |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # TKU 25012

WEIGHED BY _____

1058504

0091085-3F

76082

Bill of Lading (Page 1 of 2)

DOCUMENT # 91085-3F

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19146 | |
| Phone: (440) 228-1524 | |

| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| <i>Ticks</i> |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.40 | T |
| | | IM CONTAINER# EPIU226211 | | | |
| | | RAIL CAR# EPIX91085 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC Carrier: CSX Railroad Corp

Per: *[Signature]* Date: 2/18/2022 Per: *Luis Castro* Date: 2/18/22

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per: *Belma Spicer* Date: *3/28/22*

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91085-3F

TO----- FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70865 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|------------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Joseph Cornille</i> | Date: <i>3/25/2022</i> |

EPIU 80440

TICKET 14

IP 653504
GROSS 80440 lb INBOUND
NET 29990 03/28/2022

OUTBOUND TICKET 14

| | | | |
|---------|------------|----------|---------|
| GROSS | 80440 lb | RECALLED | 80440 G |
| LOPE | 31540 lb | | 31540 T |
| NET | 48900 lb | | 48900 N |
| NET | 24.45 TONS | LC | |
| INBOUND | 03/28/2022 | | |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET #

7101082

WEIGHED BY

Patrick Dauria

From: Doan, Janet <JDoan@wm.com>
Sent: Monday, April 25, 2022 1:47 PM
To: Patrick Dauria
Cc: Rhyne, John
Subject: EPIX 91133-3
Attachments: 91133-3.pdf

Patrick,

91133-3^B_A, box 5190⁵²⁹⁵ was invoiced at the solidification rate.
91133-3C, box 5291 was overweight.

Thanks,

JANET DOAN

Scheduling Coordinator

Gulf Coast Area

GulfCoastScheduling@wm.com

jdoan@wm.com

Main: 337.583.3700

Direct: 337.583.3745

7170 John Brannon Road

Sulphur, LA 70665



Bill of Lading (Page 1 of 2)

053488

011133-3A

760250

DOCUMENT # 91133-3A

TO

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>JMC</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| <i>Ticket 61136</i> |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|-----------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) PROFILE: 969843LA | CM | 21.50 | T |
| | | IM CONTAINER# EPIU225190 | | | |
| | | RAIL CAR# EPIX91133 | | | |
| | | ERG# 171 H039 | | <i>NH</i> | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per: <i>[Signature]</i> | Date: 2/18/2022 |
| Per: <i>Luis Castro</i> | Date: 2/18/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spicer</i> | Date: 4/5/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91133-3A

TO _____ FROM _____

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT TnC INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: Vernon Paul | Date: 11-14-22 |

01/11/2022

TICKET 10

653488
BRANNON ROAD
SULPHUR LA 70665
04/09/2022

72080
30440

42540

42540

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 72080

WEIGHED BY _____

Bill of Lading (Page 1 of 2)

1153504 UM1133-00 266254

DOCUMENT # 91133-3B

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

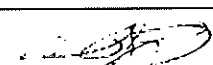
| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| Ticket 61137 |

SHIPPER'S INSTRUCTIONS

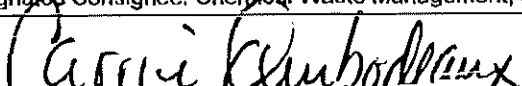
| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 22.05 | T |
| | | IM CONTAINER# EPIU225295 | | | |
| | | RAIL CAR# EPIX91133 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination, it is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per:  | Date: 2/18/2022 |
| Per: Luis Castro | Date: 2-18-22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (b) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per:  | Date: 4-5-22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91133-3B

TO _____ FROM _____

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Cody Smith</i> | Date: <i>4-5-22</i> |

E # 14225 112

TICKET 20

TP 653504
GROSS 74980 LBTNBOND
OR: 5448 04/05/2022

0010000 TICKET 20

1000 74980 16 RECALLED 74980 G
1000 31040 16 31040 T
1000 43940 16 43940 N

001 01.07 DR

12:57PM 04/05/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

766254

RECEIVING TICKET # _____

WEIGHED BY _____

053315 W1133-3C
766259

Bill of Lading (Page 1 of 2)

DOCUMENT # 91133-3C

TO

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>LWC</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| <i>Ticket W1133</i> |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 23.88 | T |
| | | IM CONTAINER# EPIU225291 | | | |
| | | RAIL CAR# EPIX91133 | | | |
| | | ERG# 171 H039 | | | NA |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per: <i>[Signature]</i> | Date: 2/18/2022 |
| Per: <i>Luis Castro</i> | Date: 2/18/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(4) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spicer</i> | Date: 4/19/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91133-3C

TO _____ FROM _____

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>INC</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>[Signature]</i> | Date: <i>4-5-22</i> |

L114 22071

TICKET 24

ID 653375
GROSS 82200 lb INBOUND
09:15AM 04/05/2022

OUTBOUND TICKET 24

GROSS 82200 lb RECALLED
TARE 34660 lb
NET 47540 lb

NET 23.77 TON

01:40PM 04/05/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 766259

WEIGHED BY _____

1037

103315

0041133-3D 766232

Bill of Lading (Page 1 of 2)

DOCUMENT # 91133-3D

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70865 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| <i>Tides 6/139</i> |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) PROFILE: 969843LA | CM | 22.70 | T |
| | | IM CONTAINER# EPIU225042 | | | |
| | | RAIL CAR# EPIX91133 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|---------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: <i>[Signature]</i> | Date: 2/18/2022 | Per: <i>Luis Castro</i> | Date: 2/18/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1)(iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spicer</i> | Date: <i>4/4/20</i> |

Bill of Lading {Continuation Sheet} 2 of 2

DOCUMENT# 91133-3D

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>Inc</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70865 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>[Signature]</i> | Date: <i>4.4.22</i> |

CPI 02 0070

TICKET 27

ID 653375
GROSS 78260 lb INBOUND
10:02AM, 04/04/2022

OUTBOUND TICKET 27

| | | | |
|-------|------------|----------|---------|
| GROSS | 78260 lb | RECALLED | 78260 G |
| TARE | 34840 lb | | 34840 T |
| NET | 43420 lb | | 43420 N |
| NET | 21.71 TON | | |
| DATE | 04/04/2022 | | |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 76632

WEIGHED BY _____

053504

UN1652

766246

Bill of Lading (Page 1 of 2)

DOCUMENT # 91133-3E

TO

FROM

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| <i>Ticket 6/1/20</i> |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
|--------------------|--------------------|--|------|--------|-----|

| | | | | | |
|---|---|--|----|-------|---|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID, N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 20.85 | T |
| | | IM CONTAINER# EPIU225267 | | | |
| | | RAIL CAR# EPIX91133 | | | |
| | | ERG# 171 H039 | | NSH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per: <i>[Signature]</i> | Date: 2/18/2022 |
| Per: <i>Luis Castro</i> | Date: 2/18/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Ref: <i>Belinda Spicer</i> | Date: <i>4/4/22</i> |

Bill of Lading {Continuation Sheet} 2 of 2

DOCUMENT# 91133-3E

TO _____ FROM _____

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>INC</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>[Signature]</i> | Date: <i>4-4-22</i> |

E 114223267
TICKET #9

TO 653504
GROSS 73020 LB INBOUND
NET 41740 LB 04/04/2022

UNWEIGHED NET WT 49

| | | | |
|-----|----------|----------|---------|
| GRS | 73020 LB | RECALLED | 73020 G |
| NET | 41740 LB | | 31280 T |
| NET | 41740 LB | | 41740 N |

NET 41740 LB

NET 41740 LB 04/04/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 7106246

WEIGHED BY _____

WSP

W1105-01

Bill of Lading (Page 1 of 2)

76623

DOCUMENT # 91133-3F

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT <i>Inc</i> INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|---|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| <i>Trkd 6/14/22</i> |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 21.15 | T |
| | | IM CONTAINER# EPIC02833X EPIU225233 L.C. | | | |
| | | RAIL CAR# EPIX91133 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to Us usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. If it is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|---|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per: <i>[Signature]</i> | Date: 2/18/2022 |
| Per: <i>Luis Castro</i> | Date: <i>2/18/22</i> |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spricer</i> | Date: <i>4/4/22</i> |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91133-3F

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>INC</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. | LA0000147272 (800) 336-2169 |
| Acknowledgement of Receipt | |
| Per: <i>Vendor K PAJ</i> | Date: <i>4-4-20</i> |

EP14223255

TICKET 26

TO 653488
FROM 72420 INBOARD
055000 04/04/2022

INBOARD TICKET 26

| | | | |
|------|-------|----------|---------|
| SPOT | 72420 | IN BOARD | 72420 G |
| WT | 30700 | IB | 30700 T |
| WT | 41720 | IB | 41720 N |

WT 76,56 TIB

01,04,22 04/04/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 760231

WEIGHED BY _____

Patrick Dauria

From: Doan, Janet <JDoan@wm.com>
Sent: Monday, April 25, 2022 1:28 PM
To: Patrick Dauria
Cc: Rhyne, John
Subject: 91063-3
Attachments: 91063-3.pdf

All solid
91063-3A, 91063-3B, 91063-3D & 91063-3E were overweight.

JANET DOAN

Scheduling Coordinator

Gulf Coast Area

GulfCoastScheduling@wm.com

jdoan@wm.com

Main: 337.583.3700

Direct: 337.583.3745

7170 John Brannon Road

Sulphur, LA 70665



Recycling is a good thing. Please recycle any printed emails.

153204 0091005-511 160304

Bill of Lading (Page 1 of 2)

DOCUMENT # 91063-3A

TO

Consignee: CHEMICAL WASTE MANAGEMENT INC *JMC*
 Street: 7170 JOHN BRANNON ROAD
 EPA ID: LAD000777201
 City/State/Zip: SULPHUR LA 70665
 Phone: (337) 583-2189

FROM

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC
 Street: 3144 PASSYUNKAVE
 EPA ID: PAD 049791 098
 City/State/Zip: PHILADELPHIA, PA 19145
 Phone: (440) 228-1524

ADDITIONAL INFORMATION

VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241

Ticket 6628

SHIPPER'S INSTRUCTIONS

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.05 | T |
| | | IM CONTAINER# EPIU225146 | | | |
| | | RAIL CAR# EPIX91063 | | | |
| | | ERG# 171 H039 | | 1M | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC
 Carrier: CSX Railroad Corp

Per: *[Signature]* Date: 2/18/2022
 Per: *Luis Castro* Date: *2/18/22*

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(e) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per: *Belinda Spicer* Date: *4/10/22*

Bill of Lading {Continuation Sheet} 2 of 2

DOCUMENT# 91063-3A

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>Inc</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70865 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Vernon K Paul</i> | Date: <i>4-6-22</i> |

EP14223196

TICKET 37

TP 653204
GROSS 83660 lb
11:17AM 04/06/2022

OUTBOUND TICKET 37

| | | | |
|---------|----------|------------|---------|
| GROSS | 83660 lb | RECALLED | 83660 G |
| NET | 35260 lb | | 35260 T |
| NET | 48400 lb | | 48400 N |
| NET | 24,70 | 100 | |
| 11:34AM | | 04/06/2022 | |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 7600304

WEIGHED BY _____

103315 0011005-50 766327
 Bill of Lading (Page 1 of 2)

DOCUMENT # 91063-3B

TO

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1624 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| <i>Ticket 61129</i> |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|-----------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.40 | T |
| | | IM CONTAINER# EPIU225133 | | | |
| | | RAIL CAR# EPIX91063 | | | |
| | | ERG# 171 H039 | | <i>NH</i> | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|----------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: <i>[Signature]</i> | Date: 2/18/2022 | Per: <i>Luis Castro</i> | Date: <i>2/18/22</i> |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (III) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spicer</i> | Date: <i>4/7/22</i> |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91063-3B

TO FROM

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT <i>INC</i> INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Dale Jann</i> | Date: <i>4-7-22</i> |

C-161-2422
TICKET 19

ID 683375
GROSS 83480 LB (83480)
NET 49000 04/07/2022

ORIGINAL TICKET 19

| | | | |
|-------|------------|----------|---------|
| GROSS | 83480 LB | RECALLED | 83480 G |
| NET | 34480 LB | | 34480 T |
| NET | 49000 LB | | 49000 N |
| DATE | 04/07/2022 | | |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 7166397

WEIGHED BY _____

652504 0411050766277

Bill of Lading (Page 1 of 2)

DOCUMENT # 91063-3C

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT Inc |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

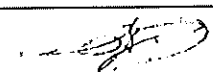
| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| Truck 6/130 |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 23.30 | T |
| | | IM CONTAINER# EPIU225334 | | | |
| | | RAIL CAR# EPIX91063 | | | |
| | | ERG# 171 H039 | NA | | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per:  | Date: 2/18/2022 |
| Per: Luis Castro | Date: 2/18/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (II) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: Belinda Spicer | Date: 4/6/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91063-3C

TO ----- FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>Inc</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19146 |
| Phone: (440) 228-1524 |

| | |
|--|------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Corey Scott</i> | Date: <i>4-5</i> |

CF14000001

TICKET 5

TO 653504
FROM 78840 LETHBRIDGE
DATE 04/06/2022

OUTBOUND TICKET 5

| | | |
|------------|-------------|------------|
| | | 78340 G |
| 78340 | TO RECALLED | 30740 T |
| 30740 | TO | 48100 N |
| 48100 | TO | |
| NET | 24,05 | TO |
| 04/06/2022 | | 04/06/2022 |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 7600277

WEIGHED BY _____

Bill of Lading (Page 1 of 2)

WILLIAMS-SU
Telp 2-19

17:18

DOCUMENT # 91063-3D

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION


| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| Ticket 61131 |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 23.23 | T |
| | | IM CONTAINER# EPIU225322 | | | |
| | | RAIL CAR# EPIX91063 | | | |
| | | ERG# 171 H039 | NH | | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. If it is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per:  | Date: 2/18/2022 |
| Per: Luis Castro | Date: 2/18/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|--|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials. |
| Per: Belinda Spicer | Date: 4/6/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91063-3D

TO ----- FROM

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT <i>Inc</i> INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Vernon K Paul</i> | Date: <i>4-5-22</i> |

5114 0011 8

TICKET 6

TO 653204
GROSS 83900 LB INBOUND
07:15AM 04/06/2022

83900 G
38240 T
45660 N

437 228 11

01/20/2022 09:00 AM

L15660

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 1106279

WEIGHED BY _____

0041003-3E766312

Bill of Lading (Page 1 of 2)

153315

DOCUMENT # 91063-3E

TO

Inc

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241

Telco 6/13/22

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|-----------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 23.28 | T |
| | | IM CONTAINER# EPIU225052 | | | |
| | | RAIL CAR# EPIX91063 | | | |
| | | ERG# 171 H039 | <i>RA</i> | | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per: <i>[Signature]</i> | Date: 2/18/2022 |
| Per: <i>Luis Castro</i> | Date: <i>2/18/22</i> |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spicer</i> | Date: <i>4/6/22</i> |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91063-3E

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>Inc</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>[Signature]</i> | Date: <i>4-6-22</i> |

EMU 225022

TICKET 50

IP 653375
SPRGS R 280 16 INBOUND
12:56PM 08/06/2022

INBOUND TICKET 50

| | | | | | |
|-------|-------|----|-----------|-------|---|
| SPRGS | 83200 | 16 | RECAL 110 | 83200 | G |
| NET | 34700 | 16 | | 34700 | T |
| NET | 48500 | 16 | | 48500 | N |

NET 24 22 100

08/06/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 7660312

WEIGHED BY _____

Bill of Lading (Page 1 of 2)

00411003-8

766304

DOCUMENT # 91063-3F

| TO | |
|--|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| FROM | |
|--|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| ADDITIONAL INFORMATION |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| <i>Tiled well 33</i> |

| SHIPPER'S INSTRUCTIONS |
|------------------------|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID, N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 23.18 | T |
| | | IM CONTAINER# EPIU225243 | | | |
| | | RAIL CAR# EPIX91063 | | | |
| | | ERG# 171 H039 | NH | | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|---------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: <i>[Signature]</i> | Date: 2/18/2022 | Per: <i>Luis Castro</i> | Date: 2-18-22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Carrie Dubochaux</i> | Date: 2-18-22 |

Bill of Lading (Page 1 of 2)

766304

DOCUMENT # 91063-3F

| TO | |
|--|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD00077201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| FROM | |
|--|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19146 | |
| Phone: (440) 228-1524 | |

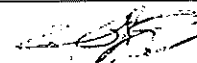
| ADDITIONAL INFORMATION | |
|--|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 | |
| | |
| | |
| | |

Teled Cell 33

| SHIPPER'S INSTRUCTIONS | |
|------------------------|--|
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 9.III (BENZENE) PROFILE: 969843LA | CM | 23.18 | T |
| | | IM CONTAINER# EPIU225243 | | | |
| | | RAIL CAR# EPIX91063 | | | |
| | | ERG# 171 H039 | NH | | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|---------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per:  | Date: 2/18/2022 | Per: <i>Luis Castro</i> | Date: 2-18-22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|---------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: <i>Carrie Emboldaux</i> | Date: 2-18-22 | | |

C114223043

TICKET 39

LF 65350a
GROSS 71420 lb ENHANCED
NET 2784 06/06/2022

NET GROSS TOTAL 39

| | | | |
|--------|------------|----------|---------|
| GROSS | 71420 lb | RECORDED | 71420 G |
| NET | 2784 lb | | 31040 T |
| | 40730 lb | | 40380 N |
| NET | 20.18 TON | | |
| WEIGHT | 06/06/2022 | | |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

766306

RECEIVING TICKET # _____

WEIGHED BY _____

Patrick Dauria

From: Doan, Janet <JDoan@wm.com>
Sent: Monday, March 28, 2022 9:18 AM
To: Patrick Dauria
Cc: Rhyne, John
Subject: EPIX 91058
Attachments: 91058.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

A blue stamp with a checkmark in a square followed by the word "APPROVED" in a stylized, outlined font.

BOLs and weight tickets attached for EPIX 91058.
All will be invoiced at solid rate.
Overweight charges will apply for boxes listed below:
5077
5110
5003 125 Y4
5161

Thank you for your business!

JANET DOAN
Scheduling Coordinator
Gulf Coast Area
GulfCoastScheduling@wm.com
jdoan@wm.com

Main: 337.583.3700
Direct: 337.583.3745
7170 John Brannon Road
Sulphur, LA 70665



W3316

UUNB8-011
746053

Bill of Lading (Page 1 of 2)

DOCUMENT # 91058-2A

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 | |
| Ticket 61400 | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) | CM | 24.38 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225077 | | | |
| | | RAIL CAR# EPIX91058 | | | |
| | | ERG# 171 H039 | | KAP | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|--------------------|----------------------------|------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: | <i>[Signature]</i> | Date: 2/23/2022 | Per: Luis Castro |
| | | | Date: |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|-----------------------|---------------------------------------|----------------|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: | <i>Belinda Spicer</i> | Date: | <i>3/24/22</i> |


Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91058-2A

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per:  | Date: 3-24-22 |

2714 202011

TICKET 48

TO 653375
FROM 83620 10110010
DT: 19TH 03/24/2022

CONTAINER TICKET 48

WEIGHT: 83620 lb RECALLED 83620 G
TARE 34480 lb 34480 T
NET 49140 lb 49140 N

NET 26.52 TONS

DT: 19TH 03/24/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # _____

766053

WEIGHED BY _____

153188
 0091058-2B
 766054
 Bill of Lading (Page 1 of 2)

DOCUMENT # 91058-2B

TO
 Consignee: CHEMICAL WASTE MANAGEMENT
 INC
 Street: 7170 JOHN BRANNON ROAD
 EPA ID: LAD000777201
 City/State/Zip: SULPHUR LA 70665
 Phone: (337) 583-2169

FROM
 Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M
 LLC
 Street: 3144 PASSYUNKAVE
 EPA ID: PAD 049791 098
 City/State/Zip: PHILADELPHIA, PA 19145
 Phone: (440) 228-1524

ADDITIONAL INFORMATION
 VRE TANK BOTTOMS EXCLUDED FROM THE
 DEFINITION OF SOLID WASTE UNDER 40CFR
 261.4/a) 1241
 Tickets 61401

SHIPPER'S INSTRUCTIONS

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969B43LA IM CONTAINER# EPIU222371 RAIL CAR# EPIX91058 ERG# 171 H039 | CM | 24.40 | T |
| | | | | NP | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC
 Carrier: CSX Railroad Corp
 Per: *[Signature]* Date: 2/23/2022
 Per: Luis Castro Date: 2-23-22

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc
 Certification of receipt of materials
 Per: *Belinda Spice* Date: 3/24/22

Bill of Lading {Continuation Sheet} 2 of 2

DOCUMENT# 91058-2B

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. | LA0000147272 (800) 336-2169 |
| Acknowledgement of Receipt | |
| Per: <i>[Signature]</i> | Date: 3-24-20 |

053188

0091058-2C

766018

Bill of Lading (Page 1 of 2)

DOCUMENT # 91058-2C

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 | |
| Ticket 61402 | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) | CM | 24.35 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225317 | | | |
| | | RAIL CAR# EPIX91058 | | | |
| | | ERG# 171 H039 | | NA | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|-------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: | Date: 2/23/2022 | Per: Luis Castro | Date: |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|---------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: Belinda Spicer | Date: 3/24/22 | | |

Bill of Lading {Continuation Sheet} 2 of 2

DOCUMENT# 91058-2C

TO..... FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. Acknowledgement of Receipt | LA0000147272 (800) 336-2169 |
| Per: <i>Vernon & Paul</i> | Date: <i>3-24-22</i> |

1. P. 14. 5. 5. 3. 1. 1

TO: 657484
FROM: 79440 11/10/00
DATE: 01/25/2002

| | | |
|----------|------|---------|
| QUANTITY | UNIT | |
| 79440 | G | 79440 G |
| 30800 | T | 30800 T |
| 48640 | N | 48640 N |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 766 ELS

WEIGHED BY Hotch

053504 0091058-2D 7/6/05

Bill of Lading (Page 1 of 2)

DOCUMENT # 91058-2D

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 | |
| T Ticks 6/4/03 | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) | CM | 24.40 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225110 | | | |
| | | RAIL CAR# EPIX91058 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|--------------------|----------------------------|------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: | <i>[Signature]</i> | Date: 2/23/2022 | Per: Luis Castro |
| | | | Date: |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|-----------------------|---------------------------------------|----------------|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: | <i>Belinda Spicen</i> | Date: | <i>3/24/22</i> |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91058-2D

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|------------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Joseph Coull</i> | Date: <i>3/29/2002</i> |

L 171422 5110
TICKET 44

TO 653504
GROSS 80240 INBOUND
12:58PM 05/24/2022

OUTBOUND TICKET 44

| | | | |
|----------|------------|------------|---------|
| WGT | 80240 LB | RECALLED | 80240 G |
| WGT | 31660 LB | | 31660 T |
| WGT | 48580 LB | | 48580 N |
| WT | 24.2% FUEL | | |
| IN 15:04 | | 05/24/2022 | |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 744457

WEIGHED BY _____

Bill of Lading (Page 1 of 2)

0091058-2E

766062

DOCUMENT # 91058-2E

TO

Consignee: CHEMICAL WASTE MANAGEMENT Inc
 INC
 Street: 7170 JOHN BRANNON ROAD
 EPA ID: LAD000777201
 City/State/Zip: SULPHUR LA 70665
 Phone: (337) 583-2169

FROM

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M
 LLC
 Street: 3144 PASSYUNKAVE
 EPA ID: PAD 049791 098
 City/State/Zip: PHILADELPHIA, PA 19145
 Phone: (440) 228-1524

ADDITIONAL INFORMATION

VRE TANK BOTTOMS EXCLUDED FROM THE
 DEFINITION OF SOLID WASTE UNDER 40CFR
 261.4/a1 1241

Tickets 61404

SHIPPER'S INSTRUCTIONS

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) | CM | 24.40 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225003 | | | |
| | | RAIL CAR# EPIX91058 | | | |
| | | ERG# 171 H039 | | NA | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC
 Carrier: CSX Railroad Corp

Per: *[Signature]* Date: 2/23/2022
 Per: Luis Castro Date: 2/23/22

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc
 Certification of receipt of materials

Per: Belinda Spicer Date: 3/25/22

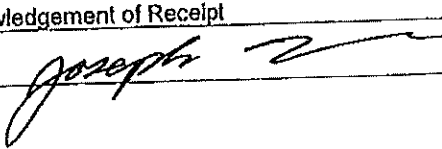
Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91058-2E

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. | LA0000147272 (800) 336-2169 |
| Acknowledgement of Receipt | |
| Per:  | Date: 3/25/2002 |

EP111223003

TICKET 29

ID 653504
GROSS 80800 TO INBOUND
09:13AM 03/25/2022

OUTBOUND TICKET 29

| | | | | | |
|---------|-------|----|----------|------------|---|
| GROSS | 80800 | TO | RECALLED | 80800 | G |
| TARE | 31660 | TO | | 31660 | T |
| NET | 49140 | TO | | 49140 | N |
| WT | 93.57 | TO | | | |
| TT:1100 | | | | 03/25/2022 | |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 74,060

WEIGHED BY _____

Wobbs

0011058-2F

7660004

Bill of Lading (Page 1 of 2)

DOCUMENT # 91058-2F

| | |
|---|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>INC</i> | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD00077201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| <i>Tides 6/405</i> |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|-----------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) | CM | 24.18 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225161 | | | |
| | | RAIL CAR# EPIX91058 | | | |
| | | ERG# 171 H039 | | <i>NH</i> | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination, it is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|----------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: <i>[Signature]</i> | Date: 2/23/2022 | Per: <i>Luis Castro</i> | Date: <i>2/23/22</i> |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49 Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spicer</i> | Date: <i>3/25/22</i> |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91058-2F

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>[Signature]</i> | Date: <i>3-25-22</i> |

L P U D A S 161
TICKET 22

TD 653155
GROSS 83140 111110000
0:25:00 03/25/2022

NET WEIGHT TICKET 22

| | | | |
|-------|----------|-----------|---------|
| GROSS | 83140 lb | RECULATED | 83140 G |
| TARE | 34900 lb | | 34900 T |
| NET | 48240 lb | | 48240 N |

NET 24.12 108

11:41:00 03/25/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 76001011

WEIGHED BY _____

Patrick Dauria

From: Doan, Janet <JDoan@wm.com>
Sent: Monday, March 28, 2022 9:16 AM
To: Patrick Dauria
Cc: Rhyne, John
Subject: EPIX 91475
Attachments: 91475.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

 APPROVED

Good morning Patrick,
Please see attached BOLs and weight tickets for EPIX 91475.
All will be invoiced at solid rate.
Overweight charges of \$125.00/ea apply to the following boxes:
5058
5207
5180 · $5 \times 125 = 625$
5236
5283

Thanks and Have a Great Day!

JANET DOAN
Scheduling Coordinator
Gulf Coast Area
GulfCoastScheduling@wm.com
jdoan@wm.com

Main: 337.583.3700
Direct: 337.583.3745
7170 John Brannon Road
Sulphur, LA 70665



Recycling is a good thing. Please recycle any printed emails.

153188

0041415-2A

765991

Bill of Lading (Page 1 of 2)

DOCUMENT # 91475-2A

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7 170 JOHN BRANNON ROAD | |
| EPA ID: LAD00077201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 | |
| Ticket 61410 | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) | CM | 24.40 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225304 | | | |
| | | RAIL CAR# EPIX91475 | | | |
| | | ERG# 171 H039 | | NA | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. If it is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|-------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: | Date: 2/23/2022 | Per: Luis Castro | Date: |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|---------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: Belinda Spicer | Date: 3/23/22 | | |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91475-2A

TO..... FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70865 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: <u>Vernon K Paul</u> | Date: <u>3-23-22</u> |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <u>Vernon K Paul</u> | Date: <u>3-27-22</u> |

1-14-03 309
PAGE 2

TO: 6753480
GROSS: 79600 101100000
NET: 48900 101100000

RECEIVING TICKET # 72

| | | | | |
|--------|-------|----|-----------|---------|
| GROSS: | 79600 | 10 | 101100000 | 79600 G |
| NET: | 48900 | 10 | | 30700 T |
| NET: | 48900 | 10 | | 48900 N |
| NET: | 48900 | 10 | | |
| NET: | 48900 | 10 | | |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 1715CAF1

WEIGHED BY _____

053504

0041475-80

Bill of Lading (Page 1 of 2)

7660013

DOCUMENT # 91475-2B

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD00077201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 | |
| Tidals 6/11 | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) | CM | 24.35 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225058 | | | |
| | | RAIL CAR# EPIX91475 | | | |
| | | ERG# 171 H039 | | NA | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|---------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: | Date: 2/23/2022 | Per: Luis Castro | Date: 2/23/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|-------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: Carrie Dubodreau | Date: | 3-24-22 | |

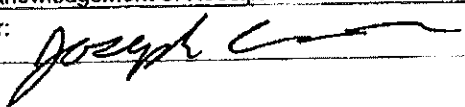
Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91475-2B

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per:  | Date: 7/29/2022 |

0011419-d-1765984

Bill of Lading (Page 1 of 2)

DOCUMENT # 91475-2C

| |
|--|
| TO |
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| FROM |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| |
|--|
| ADDITIONAL INFORMATION |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| <i>Ticket 61412</i> |

| |
|------------------------|
| SHIPPER'S INSTRUCTIONS |
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) | CM | 24.40 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225207 | | | |
| | | RAIL CAR# EPIX91475 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|-------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: <i>[Signature]</i> | Date: 2/23/2022 | Per: Luis Castro | Date: |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Blinda Spicer</i> | Date: <i>2/23/22</i> |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91475-2C

TO..... FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|------------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Joseph Courville</i> | Date: <i>3/23/2022</i> |

6-17-11 11:23

TICKET 16

00 05500
0000 0000 0000000
00 000 00000000

00000000 00000 16

| | | |
|------|-----------------|---------|
| 0000 | 0000 00 0000000 | 80080 G |
| 0000 | 0000 00 | 31580 T |
| 0000 | 0000 00 | 48500 N |
| 0000 | 0000 00 | |
| 0000 | 0000 00 | |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 11659189

WEIGHED BY _____

158815

0091475-2D

765990

Bill of Lading (Page 1 of 2)

DOCUMENT # 91475-2D

| TO | |
|--|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| FROM | |
|--|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| ADDITIONAL INFORMATION | |
|--|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 | |
| Trows 6/14/13 | |

| SHIPPER'S INSTRUCTIONS | |
|------------------------|--|
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) | CM | 24.33 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225180 | | | |
| | | RAIL CAR# EPIX91475 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|-------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: <i>[Signature]</i> | Date: 2/23/2022 | Per: Luis Castro | Date: |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|---------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: Belinda Spicer | Date: 3/23/22 | | |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91475-2D

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Derrill L. Gray</i> | Date: <i>3-23-22</i> |

(K112) 383
COURT 21

TO 483776
GROSS 483776 LITIGATION
NO. 483776 05/23/2022

RECEIVED TICKET 21

| | | | |
|-----|----------|-----------|---------|
| WGT | 83700 LB | 83700 LPO | 83700 G |
| WGT | 35040 LB | | 35040 T |
| WGT | 48660 LB | | 48660 N |

WGT 26,111 LPO

NO. 483776 05/23/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 1765990

WEIGHED BY _____

658315
Bill of Lading (Page 1 of 2)

0091475-2E

760017

DOCUMENT # 91475-2E

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD00077201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| <i>Tidit 6/14/14</i> |

SHIPPER'S INSTRUCTIONS

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|--|
| |
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| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) | CM | 24.33 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225236 | | | |
| | | RAIL CAR# EPIX91477 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|--------------------|----------------------------|------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: | <i>[Signature]</i> | Date: 2/23/2022 | Per: Luis Castro |
| | | | Date: |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spicer</i> | Date: <i>3/23/22</i> |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91475-2E

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|----------------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per: <i>Derrill W. Gary</i> | Date: <i>5-24-27</i> |

EM422256

TICKET 18

ID 653375
GROSS 84060 lb INBOUND
NET 49000 05/24/2022

GROSS TICKET 18

| | | | |
|-------|------------|----------|---------|
| GROSS | 84060 lb | RECALLED | 84060 G |
| TARE | 35060 lb | | 35060 T |
| NET | 49000 lb | | 49000 N |
| NET | 29.50 TON | | |
| DATE | 05/24/2022 | | |

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 7661017

WEIGHED BY _____

062504

0041410

766007

Bill of Lading (Page 1 of 2)

DOCUMENT # 91475-2F

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 | |
| Treat 61415 | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) | CM | 24.40 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225283 | | | |
| | | RAIL CAR# EPIX914785 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|-------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: | Date: 2/23/2022 | Per: Luis Castro | Date: |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|---------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: Belinda Spicer | Date: 3/23/22 | | |

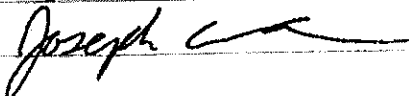
Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91475-2F

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per:  | Date: 3/27/2022 |

11/11/2003

TABLE 15

TO: 05/004
FROM: 00460 TO 000000
02/0001 03/22/2002

RECEIVING TICKET 53

| | | |
|------|-----------------|---------|
| WGT: | 00460 TO 000000 | 80460 G |
| WGT: | 01560 TO | 31560 T |
| WGT: | 00000 TO | 48900 N |

WGT: 00000 TO

03/22/2002

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 1161007

WEIGHED BY _____

1052488

0091075-2A (6622)

Bill of Lading (Page 1 of 2)

DOCUMENT # 91075-2A

TO

Consignee: CHEMICAL WASTE MANAGEMENT INC *Inc*

Street: 7170 JOHN BRANNON ROAD

EPA ID: LAD000777201

City/State/Zip: SULPHUR LA 70665

Phone: (337) 583-2169

FROM

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC

Street: 3144 PASSYUNKAVE

EPA ID: PAD 049791 098

City/State/Zip: PHILADELPHIA, PA 19145

Phone: (440) 228-1524

ADDITIONAL INFORMATION

VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241

Ticket 61385

SHIPPER'S INSTRUCTIONS

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|-----------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.10 | T |
| | | IM CONTAINER# EPIU225198 | | | |
| | | RAIL CAR# EPIX91075 | | | |
| | | ERG# 171 H039 | | <i>NA</i> | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination, it is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC

Carrier: CSX Railroad Corp

Per: *[Signature]* Date: 2/23/2022

Per: *Luis Castro* Date: *2/23/22*

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc

Certification of receipt of materials

Belinda Spicer Date: *4/1/22*

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91075-2A

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>JMC</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. | LA0000147272 (800) 336-2169 |
| Acknowledgement of Receipt | |
| Per: <i>V. K. Paul</i> | Date: <i>4-1-22</i> |

1: 1/11-2 2 1/10

TICKET 66

TO: 653489
FROM: 79360 HYDROCHLORIC
DATE: 04/01/2002

CONTENTS TYPED 44

| | | | | |
|-----|-------|----|--------|---------|
| WGT | 79360 | 11 | 800000 | 79360 G |
| WGT | 30460 | 11 | | 30460 T |
| WGT | 48900 | 11 | | 48900 N |

NET 24.45 000

DATE: 04/01/2002

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 1100221

WEIGHED BY _____

DRIVER Vernon Paul

CO-DRIVER _____



WASTE MANAGEMENT

CWM TRANSPORTATION - LAKE CHARLES
7170 JOHN BRANNON RD.
SULPHUR, LA 70663
(800) 336-2169

CW

TRANSPORTER

251275

SERVICE ORDER

| | | | |
|--|--|---|-------------------------|
| PROFILE NUMBER <u>909843 LA</u> | START TRIP LOCATION <u>Sulphur LA</u> | DATE <u>4-1-22</u> | TIME |
| | END TRIP LOCATION <u>Sulphur LA</u> | DATE <u>4-1-22</u> | TIME |
| DISPATCHED BY <u>BACAL</u> | TRUCK # <u>653488</u> | TRAILER # <u>707784</u> | TYPE <u>CT</u> |
| ORDER CALLED IN BY | ROLL OFF INSTRUCTIONS (✓) | | |
| INSTRUCTIONS <u>EIR</u> | WAIT TO LOAD | DEL ONLY | SWAP |
| | | | TURN |
| | | | P/U ONLY |
| | | | INTER-PLANT |
| CONTACT | CODES: | | |
| PHONE | 1. DEPART FACILITY | 4. ARRIVE TSD | 7. BREAKDOWN START |
| LOAD SCHEDULED DATE | 2. ARRIVE JOB SITE | 5. DEPART TSD | 8. BREAKDOWN END |
| LOAD SCHEDULED TIME | 3. LEFT JOB SITE | 6. ARRIVED FACILITY | 9. OTHER (EXPLAIN) |
| SHIPPER NAME <u>Philadelphia Energy</u> | DATE | TIME AM/PM | CODE |
| ADDRESS | <u>4-1-22</u> | <u>11:50</u> | <u>2</u> |
| CITY/STATE <u>LACASSINE LA</u> | | <u>12:10</u> | <u>3</u> |
| P.O. # | | <u>1327</u> | <u>CW</u> |
| HAZARD CLASS <u>9</u> | UN/NA # | <u>1515</u> | |
| UN/NA # | <u>3077</u> | | |
| PROPER SHIPPING NAME | | | |
| CONTAINER TYPE | CONTAINER NUMBER | SIZE | |
| CONTAINER DROPPED AT JOB SITE | | | DEMURRAGE EXPLANATIONS: |
| CONTAINER PICKED UP AT JOB SITE | | | |
| LINER DELIVERED: Y N | EQUIPMENT WASHOUT: Y N | | |
| BOX CONDITION: GOOD FAIR POOR | | | |
| REMARKS: <u>EPIX-22-5198</u> | | | |
| RECEIVER NAME: <u>CWM</u> | SHIPPER SIGNATURE: <u>[Signature]</u> | SHIPPER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | |
| ADDRESS: <u>7170 John Brannon Rd</u> | MANIFEST #: <u>EPIX 91075</u> | | |
| CITY/STATE: <u>Sulphur LA</u> | DOLLY DOWN EQUIPMENT / BOX # | | |
| S.R. # <u>61385</u> | TIME SLOT | | |
| RUN # | DATE <u>4-1-22</u> | DOLLY DOWN LOCATION | |
| RECEIVER'S SIGNATURE: <u>[Signature]</u> | RECEIVER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | |

155504

0041075-2B

766224

Bill of Lading (Page 1 of 2)

DOCUMENT # 91075-2B

| TO | |
|--|--|
| Consignee: CHEMICAL WASTE MANAGEMENT Inc | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD00077201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| FROM | |
|--|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| ADDITIONAL INFORMATION | |
|--|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 | |
| Ticked 61386 | |

| SHIPPER'S INSTRUCTIONS | |
|------------------------|--|
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) PROFILE: 969843LA | CM | 24.33 | T |
| | | IM CONTAINER# EPIU225363 | | | |
| | | RAIL CAR# EPIX91075 | | | |
| | | ERG# 171 H039 | | NSH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|---------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: | Date: 2/23/2022 | Per: Luis Castro | Date: 2/23/22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|--------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: Belinda Spicer | Date: 4/4/20 | | |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91075-2B

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>Inc</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNK AVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Col Outh</i> | Date: <i>4-4-22</i> |

01/11/2022 10:22

00000000

IP 79504
LPO29 79500 1611000000
01/11/2022

00000000 00000000

| | | | | |
|------|-------|----|----------|---------|
| 7950 | 79500 | IP | 00000000 | 79500 G |
| 3108 | 31080 | 16 | 11000000 | 31080 T |
| 4842 | 48420 | 10 | 11000000 | 48420 N |

00000000 00000000

01/11/2022 01/11/2022

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 11662241

WEIGHED BY _____

DRIVER
CO-DRIVER

Cody Smith



WASTE MANAGEMENT

CWM TRANSPORTATION - LAKE CHARLES
7170 JOHN BRANNON RD.
SULPHUR, LA 70663
(800) 336-2169

CWM

TRANSPORTER

258243

SERVICE ORDER

| | | | | | | |
|--|-------------------------------------|---|--------------------|-------------------------|--------------------|-------------|
| PROFILE NUMBER | START TRIP LOCATION | Sulphur, LA | DATE | 4-4 | TIME | |
| | END TRIP LOCATION | Sulphur, LA | DATE | 4-4 | TIME | |
| DISPATCHED BY | Barry | TRUCK # | 153504 | TRAILER # | | TYPE Rail |
| ORDER CALLED IN BY | | ROLL OFF INSTRUCTIONS (✓) | | | | |
| INSTRUCTIONS | pick up at rail empty bring it back | | WAIT TO LOAD | DEL. ONLY | SWAP | TURN ✓ |
| | | | | | | P/U ONLY |
| | | | | | | INTER-PLANT |
| CONTACT | | | CODES: | | | |
| PHONE | | | 1. DEPART FACILITY | 4. ARRIVE TSD | 7. BREAKDOWN START | |
| | | | 2. ARRIVE JOB SITE | 5. DEPART TSD | 8. BREAKDOWN END | |
| | | | 3. LEFT JOB SITE | 6. ARRIVED FACILITY | 9. OTHER (EXPLAIN) | |
| LOAD SCHEDULED DATE | 4-4 | TIME AM/PM | 6:20 | CODE | 1 | CWM |
| LOAD SCHEDULED TIME | | | 7:10 | | 2 | rail |
| SHIPPER NAME | Philadelphia energy | | 7:27 | | 3 | rail |
| ADDRESS | | | 8:20 | | 4 | TSD |
| CITY / STATE | | | 1000 | | 5 | TSD |
| P.O. # | | | | | | rail |
| HAZARD CLASS | | UN / NA # | | | | |
| PROPER SHIPPING NAME | | | | | | |
| | CONTAINER TYPE | CONTAINER NUMBER | SIZE | DEMURRAGE EXPLANATIONS: | | |
| CONTAINER DROPPED AT JOB SITE | | | | | | |
| CONTAINER PICKED UP AT JOB SITE | rail | | ? | | | |
| LINER DELIVERED: Y N | | EQUIPMENT WASHOUT: Y N | | | | |
| BOX CONDITION: GOOD | FAR | POOR | | | | |
| REMARKS: | Box # 5363 | | | | | |
| RECEIVER NAME: | Cwm | SHIPPER SIGNATURE: | X Leeli Rojas | | | |
| ADDRESS | | SHIPPER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | | | |
| CITY / STATE | Sulphur LA | MANIFEST #: | 91075-2B | | | |
| S.R. # | 61386 | TIME SLOT | | | | |
| RUN # | | DATE | | | | |
| RECEIVER'S SIGNATURE: | R S | | | | | |
| RECEIVER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | | | | | |

1154/88
 Bill of Lading (Page 1 of 2)

WY11075-01C
 766193

DOCUMENT # 91075-2C

TO

| |
|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

FROM

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

ADDITIONAL INFORMATION

| |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 |
| <i>Ticket 6/381</i> |

SHIPPER'S INSTRUCTIONS

| |
|--|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9.III (BENZENE) PROFILE: 969843LA | CM | 24.30 | T |
| | | IM CONTAINER# EPIU225137 | | | |
| | | RAIL CAR# EPIX91075 | | | |
| | | ERG# 171 H039 | | MR | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | |
|--|----------------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | Carrier: CSX Railroad Corp |
| Per: <i>[Signature]</i> | Date: 2/23/2022 |
| Per: <i>Luis Castro</i> | Date: 2/23/2022 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201 (a)(1) (ii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|---------------------------------------|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: <i>Belinda Spicer</i> | Date: 4/1/22 |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91075 - 2C

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>Zrc</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|---------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>W. K. P. O. L.</i> | Date: <i>4-1-22</i> |

1474 233131

TABLE 17

TO 653488
GROUP 20000 101100000
REMARKS 04/01/2022

ORIGINATOR 1001 17

| | | | |
|-------|------------|-----------|---------|
| GROUP | 20000 | 101100000 | 78880 G |
| GROUP | 20000 | 101100000 | 30440 T |
| GROUP | 20000 | 101100000 | 48440 N |
| DATE | 04/01/2022 | | |
| TIME | 04:01:00 | | |

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET #

7106193

WEIGHED BY

DRIVER Vernon Paul
 CO-DRIVER _____



WASTE MANAGEMENT

CWM TRANSPORTATION - LAKE CHARLES
 7170 JOHN BRANNON RD.
 SULPHUR, LA 70663
 (800) 336-2169

CWM F

TRANSPORTER

255054

SERVICE ORDER

| | | | |
|--|--|---------------------------------------|-------------------------|
| PROFILE NUMBER <u>969843LA</u> | | START TRIP LOCATION <u>Sulphur LA</u> | DATE <u>4-1-22</u> TIME |
| | | END TRIP LOCATION | DATE <u>4-1-22</u> TIME |
| DISPATCHED BY | TRUCK # <u>65348C</u> | TRAILER # <u>707780</u> | TYPE <u>CT</u> |
| ORDER CALLED IN BY | ROLL OFF INSTRUCTIONS (✓) | | |
| INSTRUCTIONS <u>E/R</u> | WAIT TO LOAD | DEL. ONLY | SWAP |
| | | | TURN |
| | | | P/U ONLY |
| | | | INTER-PLANT |
| CONTACT | CODES: | | |
| | 1. DEPART FACILITY | 4. ARRIVE TSD | 7. BREAKDOWN START |
| | 2. ARRIVE JOB SITE | 5. DEPART TSD | 8. BREAKDOWN END |
| | 3. LEFT JOB SITE | 6. ARRIVED FACILITY | 9. OTHER (EXPLAIN) |
| PHONE | DATE | TIME AM/PM | CODE |
| | | | EXPLANATION |
| LOAD SCHEDULED DATE | <u>4-1-22</u> | <u>0745</u> | <u>2</u> |
| LOAD SCHEDULED TIME | | <u>0820</u> | <u>3</u> |
| SHIPPER NAME <u>Philadelphia Energy</u> | | <u>0900</u> | <u>4</u> |
| ADDRESS | | <u>1030</u> | |
| CITY/STATE <u>LACASSINE</u> | | | |
| P.O. # | | | |
| HAZARD CLASS | UN / NA # | | |
| PROPER SHIPPING NAME | | | |
| CONTAINER TYPE | CONTAINER NUMBER | SIZE | |
| CONTAINER DROPPED AT JOB SITE | | | |
| CONTAINER PICKED UP AT JOB SITE | <u>5137</u> | <u>30x</u> | |
| LINER DELIVERED: Y N | EQUIPMENT WASHOUT: Y N | | |
| BOX CONDITION: GOOD FAIR POOR | | | |
| REMARKS: <u>EPRU-22-5137</u> | | | |
| RECEIVER NAME: <u>CWM</u> | SHIPPER SIGNATURE: <u>[Signature]</u> | | |
| ADDRESS | SHIPPER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | |
| CITY/STATE <u>Sulphur LA</u> | MANIFEST #: <u>EDFX 91075</u> | | |
| S.R. # <u>65387</u> | TIME SLOT | DOLLY DOWN EQUIPMENT / BOX # | |
| RUN # | DATE <u>4-1-22</u> | DOLLY DOWN LOCATION | |
| RECEIVER'S SIGNATURE: <u>[Signature]</u> | RECEIVER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | |

053504 WYU150N
7/6/19/1

Bill of Lading (Page 1 of 2)

DOCUMENT # 91075-20

TO

Consignee: CHEMICAL WASTE MANAGEMENT **INC**
 Street: 7170 JOHN BRANNON ROAD
 EPA ID: LAD000777201
 City/State/Zip: SULPHUR LA 70665
 Phone: (337) 583-2169

FROM

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC
 Street: 3144 PASSYUNKAVE
 EPA ID: PAD 049791 098
 City/State/Zip: PHILADELPHIA, PA 19145
 Phone: (440) 228-1524

ADDITIONAL INFORMATION

VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241

Ticket 6/28/18

SHIPPER'S INSTRUCTIONS

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.33 | T |
| | | IM CONTAINER# EPIU225237 | | | |
| | | RAIL CAR# EPIX91075 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to Us usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC
 Carrier: CSX Railroad Corp

Per: *[Signature]* Date: 2/23/2022
 Per: *Luis Castro* Date: *2/23/22*

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201(a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

Designated Consignee: Chemical Waste Management, Inc Certification of receipt of materials

Per: *Belinda Spicer* Date: *4/1/22*

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91075-2D

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Joseph Corbell</i> | Date: <i>4/1/2022</i> |

2816020251

SECRET 15

01 453504
GROSS GROSS 10T0000
00-4560 04/01/2022

RECORDED TICKET 15

| | | | | | |
|------|-------|----|----------|-------|---|
| PORE | 81020 | 10 | RECORDED | 81020 | G |
| PORE | 32160 | 10 | | 32160 | T |
| NET | 48860 | 10 | | 48860 | N |

NET 25.45 100

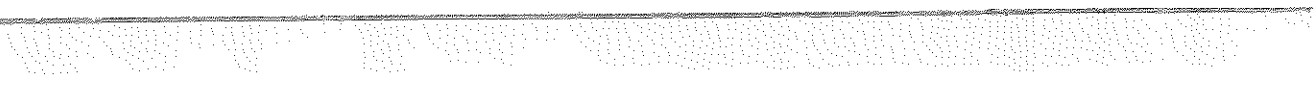
00-4560 04/01/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 7166191

WEIGHED BY _____



DRIVER Joseph Courville
 CO-DRIVER _____



WASTE MANAGEMENT
 CWM TRANSPORTATION - LAKE CHARLES
 7170 JOHN BRANNON RD.
 SULPHUR, LA 70663
 (800) 336-2169

CWM

TRANSPORTER

251399

SERVICE ORDER

| | | | |
|-------------------------------------|--|---------------------------------------|----------------------------|
| PROFILE NUMBER <u>969843LA</u> | | START TRIP LOCATION <u>Sulphur LA</u> | DATE <u>4/11/2022</u> TIME |
| | | END TRIP LOCATION <u>Sulphur LA</u> | DATE <u>4/11/2022</u> TIME |
| DISPATCHED BY <u>Berry</u> | TRUCK # <u>653509</u> | TRAILER # <u>2008P9</u> | TYPE <u>Reel</u> |
| ORDER CALLED IN BY | ROLL OFF INSTRUCTIONS (✓) | | |
| INSTRUCTIONS | WAIT TO LOAD | DEL. ONLY | SWAP |
| | | | TURN |
| | | | P/U ONLY |
| | | | INTER-PLANT |
| CONTACT | | CODES: | |
| PHONE | | 1. DEPART FACILITY | |
| | | 2. ARRIVE JOB SITE | |
| | | 3. LEFT JOB SITE | |
| | | 4. ARRIVE TSD | |
| | | 5. DEPART TSD | |
| | | 6. ARRIVED FACILITY | |
| | | 7. BREAKDOWN START | |
| | | 8. BREAKDOWN END | |
| | | 9. OTHER (EXPLAIN) | |
| LOAD SCHEDULED DATE | DATE | TIME AM/PM | EXPLANATION |
| LOAD SCHEDULED TIME | | | |
| SHIPPER NAME <u>phi? energy</u> | | | |
| ADDRESS | | | |
| CITY / STATE <u>Locustine LA</u> | | | |
| P.O. # | | | |
| HAZARD CLASS | UN / NA # | | |
| PROPER SHIPPING NAME | | | |
| | CONTAINER TYPE | CONTAINER NUMBER | SIZE |
| CONTAINER DROPPED AT JOB SITE | <u>OIT</u> | <u>5293</u> | <u>30yd</u> |
| CONTAINER PICKED UP AT JOB SITE | <u>OIT</u> | <u>5237</u> | <u>30yd</u> |
| LINER DELIVERED: Y N | EQUIPMENT WASHOUT: Y N | DEMURRAGE EXPLANATIONS: | |
| BOX CONDITION: GOOD FAIR POOR | | | |
| REMARKS: | <u>return 1 ep 54-22-5293</u> | | |
| | <u>pla 1 ep 54-22-5237</u> | | |
| RECEIVER NAME: <u>CWM</u> | SHIPPER SIGNATURE: <u>Tommy Poyon</u> | | |
| ADDRESS <u>7170 John Brannon Rd</u> | SHIPPER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | |
| CITY / STATE <u>Sulphur LA</u> | MANIFEST #: <u>91075-2D</u> | | |
| S.R. # <u>61388</u> | TIME SLOT | DOLLY DOWN EQUIPMENT / BOX # | |
| RUN # | DATE <u>4/11/2022</u> | DOLLY DOWN LOCATION | |
| RECEIVER'S SIGNATURE: <u>Berry</u> | RECEIVER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | |

Bill of Lading (Page 1 of 2)

WESLEY *0041075-2E* *ML06220*

DOCUMENT # 91075-2E

| TO | |
|---|--|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>JTC</i> | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| FROM | |
|--|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| ADDITIONAL INFORMATION |
|--|
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4(a) 1241 |
| <i>Ticket 61389</i> |

| SHIPPER'S INSTRUCTIONS |
|------------------------|
| |
| |
| |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|--|------|------------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID. N.O.S. 9. III (BENZENE) PROFILE: 969843LA | CM | 24.30 | T |
| | | IM CONTAINER# EPIU225130 | | | |
| | | RAIL CAR# EPIX91075 | | | |
| | | ERG# 171 H039 | | <i>WJH</i> | |

RECEIVED subject to the classifications and tariffs in effect on the date of the Issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to Us usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|----------------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: <i>[Signature]</i> | Date: 2/23/2022 | Per: <i>Luis Castro</i> | Date: <i>2/23/22</i> |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201 (a)(1) (iii) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | | | |
|--|---------------------|---------------------------------------|--|
| Designated Consignee: Chemical Waste Management, Inc | | Certification of receipt of materials | |
| Per: <i>Belinda Spicer</i> | Date: <i>4/1/22</i> | | |

Bill of Lading (Continuation Sheet) 2 of 2

DOCUMENT# 91075-2E

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC <i>Inc</i> |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|--|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|-----------------------|
| Carrier 2: BNSF Railway Company | |
| Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 | |
| Acknowledgement of Receipt | |
| Per: <i>Joseph Connolly</i> | Date: <i>4/1/2022</i> |

114223130

TICKET 43

10 653504
GROSS 80120 16100000
NET 2694 04/01/2022

00100000 TICKET 43

GROSS 80120 16 RECALLED 80120 G
TARE 31840 16 31840 T
NET 48280 16 48280 N

NET 26.14 TON

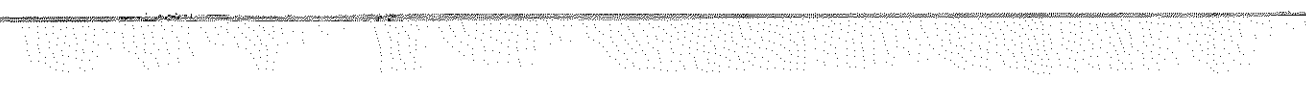
04/01/2022 04/01/2022

OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET # 114223130

WEIGHED BY _____



DRIVER Joseph Colvin, Jr
 CO-DRIVER _____



WASTE MANAGEMENT
 CWM TRANSPORTATION - LAKE CHARLES
 7170 JOHN BRANNON RD.
 SULPHUR, LA 70663
 (800) 336-2169

Cwm

TRANSPORTER
 251400

SERVICE ORDER

| | | | |
|---|--|---------------------------------------|----------------------------|
| PROFILE NUMBER <u>969893LA</u> | | START TRIP LOCATION <u>Sulphur LA</u> | DATE <u>4/11/2022</u> TIME |
| | | END TRIP LOCATION <u>Sulphur LA</u> | DATE <u>4/11/2022</u> TIME |
| DISPATCHED BY <u>Baird</u> | TRUCK # <u>653504</u> | TRAILER # <u>200889</u> | TYPE <u>Rail</u> |
| ORDER CALLED IN BY | ROLL OFF INSTRUCTIONS (✓) | | |
| INSTRUCTIONS | WAIT TO LOAD | DEL. ONLY | SWAP |
| | | | TURN |
| | | | P/U ONLY |
| | | | INTER-PLANT |
| CONTACT | | CODES: | |
| PHONE | | 1. DEPART FACILITY | |
| LOAD SCHEDULED DATE | | 2. ARRIVE JOB SITE | |
| LOAD SCHEDULED TIME | | 3. LEFT JOB SITE | |
| SHIPPER NAME <u>phil energy</u> | | 4. ARRIVE TSD | |
| ADDRESS | | 5. DEPART TSD | |
| CITY / STATE <u>Lacrosse LA</u> | | 6. ARRIVED FACILITY | |
| P.O. # | | 7. BREAKDOWN START | |
| HAZARD CLASS UN / NA # | | 8. BREAKDOWN END | |
| PROPER SHIPPING NAME | | 9. OTHER (EXPLAIN) | |
| | CONTAINER TYPE | CONTAINER NUMBER | SIZE |
| CONTAINER DROPPED AT JOB SITE | <u>OT 5237</u> | <u>30yd</u> | |
| CONTAINER PICKED UP AT JOB SITE | <u>OT 5130</u> | <u>30yd</u> | |
| LINER DELIVERED: Y <input checked="" type="checkbox"/> N | EQUIPMENT WASHOUT: Y <input checked="" type="checkbox"/> N | | |
| BOX CONDITION: GOOD <input checked="" type="checkbox"/> FAIR <input type="checkbox"/> POOR <input type="checkbox"/> | | | |
| REMARKS: <u>Return / Ep 16-22-5237</u> | | | |
| | | | |
| RECEIVER NAME: <u>Cwm</u> | SHIPPER SIGNATURE: <u>[Signature]</u> | | |
| ADDRESS <u>7170 John Brannon Rd</u> | SHIPPER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | |
| CITY / STATE <u>Sulphur LA</u> | MANIFEST #: <u>91075-2E1</u> | | |
| S.R. # <u>61384</u> | TIME SLOT | DOLLY DOWN EQUIPMENT / BOX # | |
| RUN # | DATE <u>4/11/2022</u> | DOLLY DOWN LOCATION | |
| RECEIVER'S SIGNATURE: <u>[Signature]</u> | RECEIVER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | |

153315

0091075-2F

Bill of Lading (Page 1 of 2)

Xcel 2/14

DOCUMENT # 91075-2F

| | |
|--|--|
| TO | |
| Consignee: CHEMICAL WASTE MANAGEMENT INC | |
| Street: 7170 JOHN BRANNON ROAD | |
| EPA ID: LAD000777201 | |
| City/State/Zip: SULPHUR LA 70665 | |
| Phone: (337) 583-2169 | |

| | |
|--|--|
| FROM | |
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | |
| Street: 3144 PASSYUNKAVE | |
| EPA ID: PAD 049791 098 | |
| City/State/Zip: PHILADELPHIA, PA 19145 | |
| Phone: (440) 228-1524 | |

| | |
|--|--|
| ADDITIONAL INFORMATION | |
| VRE TANK BOTTOMS EXCLUDED FROM THE DEFINITION OF SOLID WASTE UNDER 40CFR 261.4/a1 1241 | |
| Ticket 61350 | |

| | |
|------------------------|--|
| SHIPPER'S INSTRUCTIONS | |
| | |
| | |
| | |

| HAZARDOUS MATERIAL | NO. SHIPPING UNITS | DESCRIPTION OF ARTICLES SPECIAL MARKS & EXCEPTIONS | Type | Volume | UOM |
|--------------------|--------------------|---|------|--------|-----|
| X | 1 | RQ, UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. 9, III (BENZENE) | CM | 24.35 | T |
| | | PROFILE: 969843LA | | | |
| | | IM CONTAINER# EPIU225148 | | | |
| | | RAIL CAR# EPIX91075 | | | |
| | | ERG# 171 H039 | | NH | |

RECEIVED subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of packages unknown), marked consigned and destined as indicated above which said carrier (the word carrier being understood through this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery as said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property, over all or any portion of said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the Bill of Lading terms and conditions in the governing classification on the date of shipment. Shipper hereby certifies that he is familiar with all the Bill of Lading terms and conditions in the governing classification and the said terms and conditions.

| | | | |
|--|-----------------|----------------------------|---------------|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC | | Carrier: CSX Railroad Corp | |
| Per: <i>[Signature]</i> | Date: 2/23/2022 | Per: Luis Castro | Date: 2-23-22 |

Mark with "X" or "RQ" if appropriate to designate Hazardous Materials Substances as defined in the Department of Transportation Regulations governing the transportation of hazardous materials. The use of this column is an optional method for identifying hazardous materials on Bills of Lading 172.201 (a)(1) (II) of Title 49, Code of Federal Regulations. Also, when shipping hazardous materials, the shipper's certification statement prescribed in section 172.204(a) of the Federal Regulations, as indicated on the Bill of Lading does apply, unless a specific exception from the requirement is provided in the Regulation for a particular material.

| | |
|--|--|
| Designated Consignee: Chemical Waste Management, Inc | Certification of receipt of materials |
| Per: Carrie Dumbodaux | Date: <i>[Signature]</i> 2-23-22 4/1/22 |

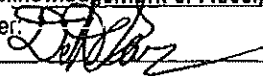
Bill of Lading {Continuation Sheet} 2 of 2

DOCUMENT# 91075-2F

TO FROM

| |
|---|
| Consignee: CHEMICAL WASTE MANAGEMENT INC |
| Street: 7170 JOHN BRANNON ROAD |
| EPA ID: LAD000777201 |
| City/State/Zip: SULPHUR LA 70665 |
| Phone: (337) 583-2169 |

| |
|---|
| Shipper: PHILADELPHIA ENERGY SOLUTIONS R&M LLC |
| Street: 3144 PASSYUNKAVE |
| EPA ID: PAD 049791 098 |
| City/State/Zip: PHILADELPHIA, PA 19145 |
| Phone: (440) 228-1524 |

| | |
|--|--------------|
| Carrier 2: BNSF Railway Company Acknowledgement of Receipt | |
| Per: | Date: |
| Carrier 3: Chemical Waste Management, Inc. LA0000147272 (800) 336-2169 Acknowledgement of Receipt | |
| Per:  | Date: 4.1.22 |

EP1112051418
TICKET 36

TO 653375
GROSS 83600 TO INBOUND
11:20AM 04/01/2022

OUTBOUND TICKET 36

| | | | |
|-------|-------|-------------|---------|
| BRUSE | 83600 | TO RECALLED | 83600 G |
| TRSE | 34440 | TR | 34440 T |
| NET | 49160 | TR | 49160 N |

NET 24.50 100

01:30PM 04/01/2022

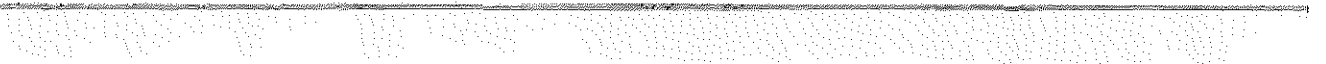
OVERWEIGHT

CHEMICAL WASTE MANAGEMENT, INC.
7170 JOHN BRANNON ROAD
SULPHUR, LA 70665

RECEIVING TICKET #

7662141

WEIGHED BY



DRIVER Derrick Gary
 CO-DRIVER Dante Tanner



WASTE MANAGEMENT

CWM TRANSPORTATION - LAKE CHARLES
 7170 JOHN BRANNON RD.
 SULPHUR, LA 70663
 (800) 336-2169

CWM

TRANSPORTER

250063

SERVICE ORDER

| | | | | |
|---------------------------------|--|--|---|--|
| PROFILE NUMBER <u>969843LA</u> | | START TRIP LOCATION <u>Sulphur, LA</u> | DATE <u>4-1-22</u> | TIME |
| | | END TRIP LOCATION | DATE | TIME |
| DISPATCHED BY <u>Barry</u> | TRUCK # <u>653 375</u> | TRAILER # | TYPE <u>Rail</u> | |
| ORDER CALLED IN BY | ROLL OFF INSTRUCTIONS (✓) | | | |
| INSTRUCTIONS <u>S/O</u> | WAIT TO LOAD | DEL. ONLY | SWAP <input checked="" type="checkbox"/> | TURN |
| | | | | |
| | CODES: | | | |
| | 1. DEPART FACILITY 2. ARRIVE JOB SITE 3. LEFT JOB SITE | | 4. ARRIVE TSD 5. DEPART TSD 6. ARRIVED FACILITY | 7. BREAKDOWN START 8. BREAKDOWN END 9. OTHER (EXPLAIN) |
| CONTACT | DATE | TIME AM / PM | CODE | EXPLANATION |
| PHONE | | | | |
| LOAD SCHEDULED DATE | | <u>8:41</u> | <u>1</u> | <u>Cwm</u> |
| LOAD SCHEDULED TIME | | <u>9:32</u> | <u>2</u> | <u>Rail</u> |
| SHIPPER NAME <u>Phil Energy</u> | | <u>10:10</u> | <u>3</u> | <u>Rail</u> |
| ADDRESS | | <u>1118</u> | <u>4</u> | <u>Cwm</u> |
| CITY / STATE <u>Iowa, LA</u> | | <u>1330</u> | <u>5</u> | <u>Cwm</u> |
| P.O. # | | | | |
| HAZARD CLASS | UN / NA # | | | |
| PROPER SHIPPING NAME | | | | |
| | CONTAINER TYPE | CONTAINER NUMBER | SIZE | |
| CONTAINER DROPPED AT JOB SITE | <u>Rail</u> | <u>5346</u> | <u>30</u> | DEMURRAGE EXPLANATIONS: |
| CONTAINER PICKED UP AT JOB SITE | | <u>5148</u> | | |
| LINER DELIVERED: Y N | EQUIPMENT WASHOUT: Y N | | | |
| BOX CONDITION: GOOD FAIR POOR | | | | |
| REMARKS: | | | | |
| RECEIVER NAME: <u>CWM</u> | SHIPPER SIGNATURE: <u>Teah Rogers</u> SHIPPER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | | |
| ADDRESS <u>7170 JBR</u> | | | | |
| CITY / STATE <u>Sulphur, LA</u> | MANIFEST #: | | | |
| S.R. # <u>61390</u> | TIME SLOT | DOLLY DOWN EQUIPMENT / BOX # | | |
| RUN # | DATE | DOLLY DOWN LOCATION | | |
| RECEIVER'S SIGNATURE: _____ | RECEIVER'S SIGNATURE VERIFIES ARRIVAL AND DEPARTURE TIME | | | |



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L2374526 |
| Client: | Terraphase Engineering Inc. 1100 Canal Pointe Boulevard Suite 100 Princeton, NJ 08540 |
| ATTN: | Nick Scala |
| Phone: | (609) 236-8171 |
| Project Name: | FORMER PHILADELPHIA REFINERY |
| Project Number: | P044.001.002 |
| Report Date: | 12/26/23 |

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|----------------------------|-------------------|---------------|----------------------------|---------------------------------|---------------------|
| L2374526-01 | GPR251-01-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 14:12 | 12/15/23 |
| L2374526-02 | GPR250-02-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 16:26 | 12/15/23 |
| L2374526-03 | GPR251-02-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 16:08 | 12/15/23 |
| L2374526-04 | GPR251-03-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 15:45 | 12/15/23 |
| L2374526-05 | GPR251-04-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 15:33 | 12/15/23 |
| L2374526-06 | GPR250-03-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 15:17 | 12/15/23 |
| L2374526-07 | GPR250-03-SS01D | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 15:17 | 12/15/23 |
| L2374526-08 | GPR250-01-0.5-1.0 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 14:54 | 12/15/23 |
| L2374526-09 | GPR250-01-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 14:38 | 12/15/23 |
| L2374526-10 | FB-231215-1 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 18:37 | 12/15/23 |
| L2374526-11 | TB-231215-1 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 18:56 | 12/15/23 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Case Narrative (continued)

Report Submission

December 26, 2023: This final report includes the results of all requested analyses.

December 22, 2023: This is a preliminary report.

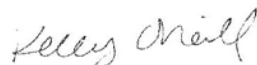
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Microextractables

L2374526-10, -11, and WG1868000-3: The sample was in improper preservative. The 8011 compound was analyzed from an HCl preserved vial.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kelly O'Neill

Title: Technical Director/Representative

Date: 12/26/23

ORGANICS

VOLATILES

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-01
 Client ID: GPR251-01-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 14:12
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 19:09
 Analyst: JIC
 Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0017 | 0.00017 | 1 |
| Benzene | ND | | mg/kg | 0.00042 | 0.00014 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00085 | 0.00022 | 1 |
| Toluene | ND | | mg/kg | 0.00085 | 0.00046 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00042 | 0.00025 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00085 | 0.00012 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0017 | 0.00048 | 1 |
| o-Xylene | ND | | mg/kg | 0.00085 | 0.00025 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00085 | 0.00025 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00085 | 0.00009 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0017 | 0.00016 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0017 | 0.00028 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 111 | | 70-130 |
| Toluene-d8 | 96 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 70-130 |
| Dibromofluoromethane | 107 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-02
 Client ID: GPR250-02-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:26
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 17:53
 Analyst: JIC
 Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0018 | 0.00018 | 1 |
| Benzene | ND | | mg/kg | 0.00046 | 0.00015 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00091 | 0.00023 | 1 |
| Toluene | ND | | mg/kg | 0.00091 | 0.00050 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00046 | 0.00027 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00091 | 0.00013 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0018 | 0.00051 | 1 |
| o-Xylene | ND | | mg/kg | 0.00091 | 0.00026 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00091 | 0.00026 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00091 | 0.00010 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00018 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00030 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 109 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-03
 Client ID: GPR251-02-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:08
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 18:43
 Analyst: JIC
 Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0018 | 0.00018 | 1 |
| Benzene | ND | | mg/kg | 0.00045 | 0.00015 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00091 | 0.00023 | 1 |
| Toluene | ND | | mg/kg | 0.00091 | 0.00049 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00045 | 0.00026 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00091 | 0.00013 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0018 | 0.00051 | 1 |
| o-Xylene | ND | | mg/kg | 0.00091 | 0.00026 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00091 | 0.00026 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00091 | 0.00009 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00018 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00030 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 115 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 70-130 |
| Dibromofluoromethane | 108 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-04
 Client ID: GPR251-03-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:45
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 18:18
 Analyst: JIC
 Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0019 | 0.00019 | 1 |
| Benzene | ND | | mg/kg | 0.00047 | 0.00016 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00094 | 0.00024 | 1 |
| Toluene | ND | | mg/kg | 0.00094 | 0.00051 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00047 | 0.00027 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00094 | 0.00013 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0019 | 0.00052 | 1 |
| o-Xylene | ND | | mg/kg | 0.00094 | 0.00027 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00094 | 0.00027 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00094 | 0.00010 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0019 | 0.00018 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0019 | 0.00031 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 112 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 94 | | 70-130 |
| Dibromofluoromethane | 107 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-05
 Client ID: GPR251-04-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:33
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 10:48
 Analyst: JIC
 Percent Solids: 75%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0022 | 0.00022 | 1 |
| Benzene | ND | | mg/kg | 0.00054 | 0.00018 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.0011 | 0.00028 | 1 |
| Toluene | ND | | mg/kg | 0.0011 | 0.00058 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00054 | 0.00032 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.0011 | 0.00015 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0022 | 0.00060 | 1 |
| o-Xylene | ND | | mg/kg | 0.0011 | 0.00031 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.0011 | 0.00031 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.0011 | 0.00012 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0022 | 0.00021 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0022 | 0.00036 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 110 | | 70-130 |
| Toluene-d8 | 97 | | 70-130 |
| 4-Bromofluorobenzene | 94 | | 70-130 |
| Dibromofluoromethane | 107 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-06
 Client ID: GPR250-03-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 15:06
 Analyst: JIC
 Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0018 | 0.00019 | 1 |
| Benzene | ND | | mg/kg | 0.00046 | 0.00015 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00093 | 0.00024 | 1 |
| Toluene | ND | | mg/kg | 0.00093 | 0.00050 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00046 | 0.00027 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00093 | 0.00013 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0018 | 0.00052 | 1 |
| o-Xylene | ND | | mg/kg | 0.00093 | 0.00027 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00093 | 0.00027 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00093 | 0.00010 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00018 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00031 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 106 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 102 | | 70-130 |
| Dibromofluoromethane | 104 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-07
 Client ID: GPR250-03-SS01D
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 15:45
 Analyst: JIC
 Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0019 | 0.00019 | 1 |
| Benzene | ND | | mg/kg | 0.00048 | 0.00016 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00097 | 0.00025 | 1 |
| Toluene | ND | | mg/kg | 0.00097 | 0.00052 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00048 | 0.00028 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00097 | 0.00014 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0019 | 0.00054 | 1 |
| o-Xylene | ND | | mg/kg | 0.00097 | 0.00028 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00097 | 0.00028 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00097 | 0.00010 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0019 | 0.00019 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0019 | 0.00032 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 108 | | 70-130 |
| Toluene-d8 | 93 | | 70-130 |
| 4-Bromofluorobenzene | 103 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-09
 Client ID: GPR250-01-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 14:38
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 16:24
 Analyst: JIC
 Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|---------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0017 | 0.00017 | 1 |
| Benzene | 0.00028 | J | mg/kg | 0.00042 | 0.00014 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00084 | 0.00022 | 1 |
| Toluene | ND | | mg/kg | 0.00084 | 0.00046 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00042 | 0.00025 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00084 | 0.00012 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0017 | 0.00047 | 1 |
| o-Xylene | ND | | mg/kg | 0.00084 | 0.00024 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00084 | 0.00024 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00084 | 0.00009 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0017 | 0.00016 | 1 |
| 1,2,4-Trimethylbenzene | 0.00038 | J | mg/kg | 0.0017 | 0.00028 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 107 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 104 | | 70-130 |
| Dibromofluoromethane | 104 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-10
 Client ID: FB-231215-1
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:37
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/26/23 12:43
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/26/23 11:04

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-10
 Client ID: FB-231215-1
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:37
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/22/23 00:59
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 103 | | 70-130 |
| Toluene-d8 | 107 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 70-130 |
| Dibromofluoromethane | 100 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-11
 Client ID: TB-231215-1
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:56
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/26/23 12:51
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/26/23 11:04

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-11
 Client ID: TB-231215-1
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:56
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/22/23 01:25
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 106 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260D
 Analytical Date: 12/20/23 09:50
 Analyst: AJK

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|---------|---------|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-04 Batch: WG1866806-5 | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0020 | 0.00020 |
| Benzene | ND | | mg/kg | 0.00050 | 0.00017 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.0010 | 0.00026 |
| Toluene | ND | | mg/kg | 0.0010 | 0.00054 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00050 | 0.00029 |
| Ethylbenzene | ND | | mg/kg | 0.0010 | 0.00014 |
| p/m-Xylene | ND | | mg/kg | 0.0020 | 0.00056 |
| o-Xylene | ND | | mg/kg | 0.0010 | 0.00029 |
| Xylenes, Total | ND | | mg/kg | 0.0010 | 0.00029 |
| Isopropylbenzene | ND | | mg/kg | 0.0010 | 0.00011 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00019 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00033 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|------------------------|
| 1,2-Dichloroethane-d4 | 108 | | 70-130 |
| Toluene-d8 | 97 | | 70-130 |
| 4-Bromofluorobenzene | 93 | | 70-130 |
| Dibromofluoromethane | 102 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/20/23 09:58
Analyst: AJK

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|---------|---------|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 06-07,09 Batch: WG1866905-5 | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0020 | 0.00020 |
| Benzene | ND | | mg/kg | 0.00050 | 0.00017 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.0010 | 0.00026 |
| Toluene | ND | | mg/kg | 0.0010 | 0.00054 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00050 | 0.00029 |
| Ethylbenzene | ND | | mg/kg | 0.0010 | 0.00014 |
| p/m-Xylene | ND | | mg/kg | 0.0020 | 0.00056 |
| o-Xylene | ND | | mg/kg | 0.0010 | 0.00029 |
| Xylenes, Total | ND | | mg/kg | 0.0010 | 0.00029 |
| Isopropylbenzene | ND | | mg/kg | 0.0010 | 0.00011 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00019 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00033 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 100 | | 70-130 |
| Toluene-d8 | 96 | | 70-130 |
| 4-Bromofluorobenzene | 102 | | 70-130 |
| Dibromofluoromethane | 100 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/21/23 09:26
Analyst: LAC

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|---------|---------|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 05 Batch: WG1867304-5 | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0020 | 0.00020 |
| Benzene | ND | | mg/kg | 0.00050 | 0.00017 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.0010 | 0.00026 |
| Toluene | ND | | mg/kg | 0.0010 | 0.00054 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00050 | 0.00029 |
| Ethylbenzene | ND | | mg/kg | 0.0010 | 0.00014 |
| p/m-Xylene | ND | | mg/kg | 0.0020 | 0.00056 |
| o-Xylene | ND | | mg/kg | 0.0010 | 0.00029 |
| Xylenes, Total | ND | | mg/kg | 0.0010 | 0.00029 |
| Isopropylbenzene | ND | | mg/kg | 0.0010 | 0.00011 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00019 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00033 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 107 | | 70-130 |
| Toluene-d8 | 97 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260D
Analytical Date: 12/21/23 21:06
Analyst: MAG

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|------|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 10-11 Batch: WG1867314-5 | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 |
| Benzene | ND | | ug/l | 0.50 | 0.16 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 |
| Toluene | ND | | ug/l | 0.75 | 0.20 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|------------------------|
| 1,2-Dichloroethane-d4 | 101 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 109 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8011
Analytical Date: 12/26/23 12:11
Analyst: JKH

Extraction Method: EPA 8011
Extraction Date: 12/26/23 11:04

| Parameter | Result | Qualifier | Units | RL | MDL | |
|---|--------|-----------|-------|-------|-------|---|
| Microextractables by GC - Westborough Lab for sample(s): 10-11 Batch: WG1868000-1 | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | A |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCS %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-04 Batch: WG1866806-3 WG1866806-4 | | | | | | | | |
| Methyl tert butyl ether | 130 | | 122 | | 66-130 | 6 | | 30 |
| Benzene | 106 | | 100 | | 70-130 | 6 | | 30 |
| 1,2-Dichloroethane | 107 | | 101 | | 70-130 | 6 | | 30 |
| Toluene | 101 | | 96 | | 70-130 | 5 | | 30 |
| 1,2-Dibromoethane | 120 | | 118 | | 70-130 | 2 | | 30 |
| Ethylbenzene | 102 | | 96 | | 70-130 | 6 | | 30 |
| p/m-Xylene | 105 | | 100 | | 70-130 | 5 | | 30 |
| o-Xylene | 102 | | 98 | | 70-130 | 4 | | 30 |
| Isopropylbenzene | 93 | | 89 | | 70-130 | 4 | | 30 |
| 1,3,5-Trimethylbenzene | 93 | | 90 | | 70-130 | 3 | | 30 |
| 1,2,4-Trimethylbenzene | 94 | | 90 | | 70-130 | 4 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCS %Recovery | Qual | Acceptance Criteria |
|-----------------------|------------------|------|------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 112 | | 109 | | 70-130 |
| Toluene-d8 | 99 | | 96 | | 70-130 |
| 4-Bromofluorobenzene | 93 | | 94 | | 70-130 |
| Dibromofluoromethane | 104 | | 104 | | 70-130 |



Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | LCS | | LCSD | | %Recovery Limits | RPD | RPD | |
|---|-----------|------|-----------|------|------------------|-----|------|--------|
| | %Recovery | Qual | %Recovery | Qual | | | Qual | Limits |
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06-07,09 Batch: WG1866905-3 WG1866905-4 | | | | | | | | |
| Methyl tert butyl ether | 97 | | 98 | | 66-130 | 1 | | 30 |
| Benzene | 94 | | 94 | | 70-130 | 0 | | 30 |
| 1,2-Dichloroethane | 94 | | 93 | | 70-130 | 1 | | 30 |
| Toluene | 87 | | 87 | | 70-130 | 0 | | 30 |
| 1,2-Dibromoethane | 91 | | 93 | | 70-130 | 2 | | 30 |
| Ethylbenzene | 90 | | 90 | | 70-130 | 0 | | 30 |
| p/m-Xylene | 92 | | 92 | | 70-130 | 0 | | 30 |
| o-Xylene | 92 | | 92 | | 70-130 | 0 | | 30 |
| Isopropylbenzene | 91 | | 90 | | 70-130 | 1 | | 30 |
| 1,3,5-Trimethylbenzene | 92 | | 92 | | 70-130 | 0 | | 30 |
| 1,2,4-Trimethylbenzene | 92 | | 91 | | 70-130 | 1 | | 30 |

| Surrogate | LCS | | LCSD | | Acceptance Criteria |
|-----------------------|-----------|------|-----------|------|---------------------|
| | %Recovery | Qual | %Recovery | Qual | |
| 1,2-Dichloroethane-d4 | 100 | | 101 | | 70-130 |
| Toluene-d8 | 94 | | 94 | | 70-130 |
| 4-Bromofluorobenzene | 102 | | 101 | | 70-130 |
| Dibromofluoromethane | 102 | | 103 | | 70-130 |



Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05 Batch: WG1867304-3 WG1867304-4 | | | | | | | | |
| Methyl tert butyl ether | 124 | | 126 | | 66-130 | 2 | | 30 |
| Benzene | 106 | | 103 | | 70-130 | 3 | | 30 |
| 1,2-Dichloroethane | 104 | | 103 | | 70-130 | 1 | | 30 |
| Toluene | 99 | | 96 | | 70-130 | 3 | | 30 |
| 1,2-Dibromoethane | 119 | | 120 | | 70-130 | 1 | | 30 |
| Ethylbenzene | 98 | | 95 | | 70-130 | 3 | | 30 |
| p/m-Xylene | 102 | | 100 | | 70-130 | 2 | | 30 |
| o-Xylene | 100 | | 98 | | 70-130 | 2 | | 30 |
| Isopropylbenzene | 91 | | 88 | | 70-130 | 3 | | 30 |
| 1,3,5-Trimethylbenzene | 91 | | 89 | | 70-130 | 2 | | 30 |
| 1,2,4-Trimethylbenzene | 92 | | 89 | | 70-130 | 3 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|-----------------------|------------------|------|-------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 109 | | 109 | | 70-130 |
| Toluene-d8 | 97 | | 95 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 92 | | 70-130 |
| Dibromofluoromethane | 106 | | 106 | | 70-130 |



Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

| Parameter | LCS | | LCSD | | %Recovery Limits | RPD | Qual | RPD Limits |
|---|-----------|------|-----------|------|------------------|-----|------|------------|
| | %Recovery | Qual | %Recovery | Qual | | | | |
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10-11 Batch: WG1867314-3 WG1867314-4 | | | | | | | | |
| Methyl tert butyl ether | 89 | | 88 | | 63-130 | 1 | | 20 |
| Benzene | 98 | | 97 | | 70-130 | 1 | | 20 |
| 1,2-Dichloroethane | 98 | | 96 | | 70-130 | 2 | | 20 |
| Toluene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Ethylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |
| p/m-Xylene | 105 | | 105 | | 70-130 | 0 | | 20 |
| o-Xylene | 105 | | 100 | | 70-130 | 5 | | 20 |
| Isopropylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |
| 1,3,5-Trimethylbenzene | 110 | | 100 | | 64-130 | 10 | | 20 |
| 1,2,4-Trimethylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |

| Surrogate | LCS | | LCSD | | Acceptance Criteria |
|-----------------------|-----------|------|-----------|------|---------------------|
| | %Recovery | Qual | %Recovery | Qual | |
| 1,2-Dichloroethane-d4 | 101 | | 99 | | 70-130 |
| Toluene-d8 | 108 | | 107 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 106 | | 70-130 |
| Dibromofluoromethane | 99 | | 100 | | 70-130 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|--|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|---------------|
| Microextractables by GC - Westborough Lab Associated sample(s): 10-11 Batch: WG1868000-2 | | | | | | | | | |
| 1,2-Dibromoethane | 92 | | - | | 80-120 | - | | 20 | A |

Matrix Spike Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits | Column |
|--|----------------------|-----------------|-----------------|---------------------|-------------|------------------|----------------------|-------------|------------------------|------------|-------------|-------------------|---------------|
| Microextractables by GC - Westborough Lab Associated sample(s): 10-11 QC Batch ID: WG1868000-3 QC Sample: L2374526-10 Client ID: FB-231215-1 | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | 0.25 | 0.233 | 93 | | - | - | | 80-120 | - | | 20 | A |



SEMIVOLATILES

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-01
 Client ID: GPR251-01-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 14:12
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 10:00
 Analyst: EK
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | ND | | mg/kg | 0.039 | 0.024 | 1 |
| Fluorene | ND | | mg/kg | 0.19 | 0.019 | 1 |
| Phenanthrene | 0.092 | J | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | ND | | mg/kg | 0.12 | 0.038 | 1 |
| Pyrene | 0.13 | | mg/kg | 0.12 | 0.019 | 1 |
| Benzo(a)anthracene | 0.078 | J | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.077 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(b)fluoranthene | 0.093 | J | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | 0.081 | J | mg/kg | 0.16 | 0.047 | 1 |
| Benzo(ghi)perylene | 0.043 | J | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 65 | | 23-120 |
| 2-Fluorobiphenyl | 58 | | 30-120 |
| 4-Terphenyl-d14 | 65 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-02
 Client ID: GPR250-02-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:26
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 09:11
 Analyst: EK
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | ND | | mg/kg | 0.039 | 0.024 | 1 |
| Fluorene | ND | | mg/kg | 0.20 | 0.019 | 1 |
| Phenanthrene | 0.028 | J | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | ND | | mg/kg | 0.12 | 0.038 | 1 |
| Pyrene | 0.045 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(a)anthracene | 0.032 | J | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.039 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(b)fluoranthene | 0.058 | J | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | ND | | mg/kg | 0.16 | 0.048 | 1 |
| Benzo(ghi)perylene | 0.038 | J | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 68 | | 23-120 |
| 2-Fluorobiphenyl | 63 | | 30-120 |
| 4-Terphenyl-d14 | 70 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-03
 Client ID: GPR251-02-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:08
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 08:21
 Analyst: EK
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | ND | | mg/kg | 0.037 | 0.023 | 1 |
| Fluorene | ND | | mg/kg | 0.19 | 0.018 | 1 |
| Phenanthrene | ND | | mg/kg | 0.11 | 0.023 | 1 |
| Anthracene | ND | | mg/kg | 0.11 | 0.036 | 1 |
| Pyrene | 0.033 | J | mg/kg | 0.11 | 0.018 | 1 |
| Benzo(a)anthracene | 0.022 | J | mg/kg | 0.11 | 0.021 | 1 |
| Chrysene | 0.022 | J | mg/kg | 0.11 | 0.019 | 1 |
| Benzo(b)fluoranthene | ND | | mg/kg | 0.11 | 0.031 | 1 |
| Benzo(a)pyrene | ND | | mg/kg | 0.15 | 0.046 | 1 |
| Benzo(ghi)perylene | ND | | mg/kg | 0.15 | 0.022 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 65 | | 23-120 |
| 2-Fluorobiphenyl | 60 | | 30-120 |
| 4-Terphenyl-d14 | 66 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-04
 Client ID: GPR251-03-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:45
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 10:25
 Analyst: EK
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | 0.035 | J | mg/kg | 0.039 | 0.024 | 1 |
| Fluorene | ND | | mg/kg | 0.20 | 0.019 | 1 |
| Phenanthrene | 0.046 | J | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | ND | | mg/kg | 0.12 | 0.038 | 1 |
| Pyrene | 0.077 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(a)anthracene | 0.060 | J | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.063 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(b)fluoranthene | 0.084 | J | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | 0.076 | J | mg/kg | 0.16 | 0.048 | 1 |
| Benzo(ghi)perylene | 0.044 | J | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 69 | | 23-120 |
| 2-Fluorobiphenyl | 62 | | 30-120 |
| 4-Terphenyl-d14 | 66 | | 18-120 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-05
 Client ID: GPR251-04-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:33
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 10:50
 Analyst: EK
 Percent Solids: 75%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | 0.18 | | mg/kg | 0.043 | 0.026 | 1 |
| Fluorene | ND | | mg/kg | 0.22 | 0.021 | 1 |
| Phenanthrene | 0.12 | J | mg/kg | 0.13 | 0.026 | 1 |
| Anthracene | ND | | mg/kg | 0.13 | 0.042 | 1 |
| Pyrene | 0.20 | | mg/kg | 0.13 | 0.021 | 1 |
| Benzo(a)anthracene | 0.15 | | mg/kg | 0.13 | 0.024 | 1 |
| Chrysene | 0.17 | | mg/kg | 0.13 | 0.022 | 1 |
| Benzo(b)fluoranthene | 0.23 | | mg/kg | 0.13 | 0.036 | 1 |
| Benzo(a)pyrene | 0.21 | | mg/kg | 0.17 | 0.052 | 1 |
| Benzo(ghi)perylene | 0.13 | J | mg/kg | 0.17 | 0.025 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 83 | | 23-120 |
| 2-Fluorobiphenyl | 74 | | 30-120 |
| 4-Terphenyl-d14 | 81 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-06
 Client ID: GPR250-03-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 09:35
 Analyst: EK
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | ND | | mg/kg | 0.040 | 0.024 | 1 |
| Fluorene | ND | | mg/kg | 0.20 | 0.019 | 1 |
| Phenanthrene | 0.28 | | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | 0.057 | J | mg/kg | 0.12 | 0.039 | 1 |
| Pyrene | 0.48 | | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(a)anthracene | 0.28 | | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.28 | | mg/kg | 0.12 | 0.021 | 1 |
| Benzo(b)fluoranthene | 0.31 | | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | 0.27 | | mg/kg | 0.16 | 0.048 | 1 |
| Benzo(ghi)perylene | 0.14 | J | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 72 | | 23-120 |
| 2-Fluorobiphenyl | 64 | | 30-120 |
| 4-Terphenyl-d14 | 70 | | 18-120 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-07
 Client ID: GPR250-03-SS01D
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 08:46
 Analyst: EK
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | ND | | mg/kg | 0.039 | 0.024 | 1 |
| Fluorene | ND | | mg/kg | 0.20 | 0.019 | 1 |
| Phenanthrene | 0.056 | J | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | ND | | mg/kg | 0.12 | 0.038 | 1 |
| Pyrene | 0.069 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(a)anthracene | 0.035 | J | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.038 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(b)fluoranthene | 0.042 | J | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | ND | | mg/kg | 0.16 | 0.048 | 1 |
| Benzo(ghi)perylene | ND | | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 72 | | 23-120 |
| 2-Fluorobiphenyl | 67 | | 30-120 |
| 4-Terphenyl-d14 | 78 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-09
 Client ID: GPR250-01-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 14:38
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 12:28
 Analyst: EK
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | 0.19 | | mg/kg | 0.040 | 0.024 | 1 |
| Fluorene | 0.021 | J | mg/kg | 0.20 | 0.019 | 1 |
| Phenanthrene | 0.24 | | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | 0.11 | J | mg/kg | 0.12 | 0.039 | 1 |
| Pyrene | 0.55 | | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(a)anthracene | 0.37 | | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.42 | | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(b)fluoranthene | 0.58 | | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | 0.45 | | mg/kg | 0.16 | 0.048 | 1 |
| Benzo(ghi)perylene | 0.30 | | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 68 | | 23-120 |
| 2-Fluorobiphenyl | 57 | | 30-120 |
| 4-Terphenyl-d14 | 58 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-10
 Client ID: FB-231215-1
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:37
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/22/23 11:00
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 48 | | 23-120 |
| 2-Fluorobiphenyl | 49 | | 15-120 |
| 4-Terphenyl-d14 | 52 | | 41-149 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270E
Analytical Date: 12/19/23 05:54
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-------|-------|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07,09 Batch: WG1865200-1 | | | | | |
| Naphthalene | ND | | mg/kg | 0.033 | 0.020 |
| Fluorene | ND | | mg/kg | 0.16 | 0.016 |
| Phenanthrene | ND | | mg/kg | 0.099 | 0.020 |
| Anthracene | ND | | mg/kg | 0.099 | 0.032 |
| Pyrene | ND | | mg/kg | 0.099 | 0.016 |
| Benzo(a)anthracene | ND | | mg/kg | 0.099 | 0.018 |
| Chrysene | ND | | mg/kg | 0.099 | 0.017 |
| Benzo(b)fluoranthene | ND | | mg/kg | 0.099 | 0.028 |
| Benzo(a)pyrene | ND | | mg/kg | 0.13 | 0.040 |
| Benzo(ghi)perylene | ND | | mg/kg | 0.13 | 0.019 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|------------------|-----------|-----------|---------------------|
| Nitrobenzene-d5 | 66 | | 23-120 |
| 2-Fluorobiphenyl | 62 | | 30-120 |
| 4-Terphenyl-d14 | 77 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270E-SIM
Analytical Date: 12/21/23 17:36
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|------|------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 10 Batch: WG1866777-1 | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|------------------|-----------|-----------|------------------------|
| Nitrobenzene-d5 | 80 | | 23-120 |
| 2-Fluorobiphenyl | 75 | | 15-120 |
| 4-Terphenyl-d14 | 71 | | 41-149 |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09 Batch: WG1865200-2 WG1865200-3 | | | | | | | | |
| Naphthalene | 56 | | 61 | | 40-140 | 9 | | 50 |
| Fluorene | 56 | | 62 | | 40-140 | 10 | | 50 |
| Phenanthrene | 57 | | 64 | | 40-140 | 12 | | 50 |
| Anthracene | 60 | | 66 | | 40-140 | 10 | | 50 |
| Pyrene | 62 | | 66 | | 35-142 | 6 | | 50 |
| Benzo(a)anthracene | 57 | | 64 | | 40-140 | 12 | | 50 |
| Chrysene | 61 | | 68 | | 40-140 | 11 | | 50 |
| Benzo(b)fluoranthene | 62 | | 66 | | 40-140 | 6 | | 50 |
| Benzo(a)pyrene | 69 | | 73 | | 40-140 | 6 | | 50 |
| Benzo(ghi)perylene | 59 | | 64 | | 40-140 | 8 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|------------------|------------------|------|-------------------|------|------------------------|
| Nitrobenzene-d5 | 62 | | 67 | | 23-120 |
| 2-Fluorobiphenyl | 57 | | 64 | | 30-120 |
| 4-Terphenyl-d14 | 67 | | 72 | | 18-120 |



Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 10 Batch: WG1866777-2 WG1866777-3 | | | | | | | | |
| Naphthalene | 58 | | 75 | | 40-140 | 26 | | 40 |
| Fluorene | 59 | | 76 | | 40-140 | 25 | | 40 |
| Phenanthrene | 58 | | 74 | | 40-140 | 24 | | 40 |
| Anthracene | 59 | | 76 | | 40-140 | 25 | | 40 |
| Pyrene | 55 | | 68 | | 26-127 | 21 | | 40 |
| Benzo(a)anthracene | 66 | | 86 | | 40-140 | 26 | | 40 |
| Chrysene | 61 | | 78 | | 40-140 | 24 | | 40 |
| Benzo(b)fluoranthene | 59 | | 74 | | 40-140 | 23 | | 40 |
| Benzo(a)pyrene | 57 | | 72 | | 40-140 | 23 | | 40 |
| Benzo(ghi)perylene | 66 | | 83 | | 40-140 | 23 | | 40 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|------------------|------------------|------|-------------------|------|------------------------|
| Nitrobenzene-d5 | 67 | | 84 | | 23-120 |
| 2-Fluorobiphenyl | 61 | | 75 | | 15-120 |
| 4-Terphenyl-d14 | 55 | | 67 | | 41-149 |

METALS

Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-01

Date Collected: 12/15/23 14:12

Client ID: GPR251-01-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 38.0 | | mg/kg | 2.29 | 0.123 | 1 | 12/19/23 14:53 | 12/20/23 21:32 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-02

Date Collected: 12/15/23 16:26

Client ID: GPR250-02-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 36.3 | | mg/kg | 2.24 | 0.120 | 1 | 12/19/23 14:53 | 12/20/23 21:37 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-03

Date Collected: 12/15/23 16:08

Client ID: GPR251-02-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 21.8 | | mg/kg | 2.28 | 0.122 | 1 | 12/19/23 14:53 | 12/20/23 21:42 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-04

Date Collected: 12/15/23 15:45

Client ID: GPR251-03-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 40.1 | | mg/kg | 2.32 | 0.124 | 1 | 12/19/23 14:53 | 12/20/23 21:47 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-05

Date Collected: 12/15/23 15:33

Client ID: GPR251-04-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 75%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 66.7 | | mg/kg | 2.63 | 0.141 | 1 | 12/19/23 14:53 | 12/20/23 21:51 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-06
 Client ID: GPR250-03-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 19.8 | | mg/kg | 2.36 | 0.126 | 1 | 12/19/23 14:53 | 12/20/23 21:56 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-07

Date Collected: 12/15/23 15:17

Client ID: GPR250-03-SS01D

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 17.2 | | mg/kg | 2.31 | 0.124 | 1 | 12/19/23 14:53 | 12/20/23 22:24 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-09

Date Collected: 12/15/23 14:38

Client ID: GPR250-01-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 350 | | mg/kg | 2.35 | 0.126 | 1 | 12/19/23 14:53 | 12/20/23 22:28 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-10

Date Collected: 12/15/23 18:37

Client ID: FB-231215-1

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | ND | | ug/l | 1.000 | 0.3430 | 1 | 12/20/23 19:10 | 12/21/23 07:25 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Method Blank Analysis Batch Quality Control

| Parameter | Result Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|------------------|-------|------|-------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-07,09 Batch: WG1865412-1 | | | | | | | | | |
| Lead, Total | ND | mg/kg | 2.00 | 0.107 | 1 | 12/19/23 14:53 | 12/20/23 19:40 | 1,6010D | TAA |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|------------------|-------|-------|--------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 10 Batch: WG1866341-1 | | | | | | | | | |
| Lead, Total | ND | ug/l | 1.000 | 0.3430 | 1 | 12/20/23 19:10 | 12/21/23 07:01 | 1,6020B | EJF |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-07,09 Batch: WG1865412-2 SRM Lot Number: D122-540 | | | | | | | | |
| Lead, Total | 100 | | - | | 83-117 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 10 Batch: WG1866341-2 | | | | | | | | |
| Lead, Total | 106 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | MS Qual | MSD Found | MSD %Recovery | MSD Qual | Recovery Limits | RPD | RPD Qual | RPD Limits |
|---|---------------|----------|----------|--------------|---------|-----------|---------------|----------|-----------------|-----|----------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-07,09 QC Batch ID: WG1865412-3 QC Sample: L2373843-01 Client ID: MS Sample | | | | | | | | | | | | |
| Lead, Total | 319 | 49.2 | 453 | 272 | Q | - | - | | 75-125 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 10 QC Batch ID: WG1866341-3 QC Sample: L2374526-10 Client ID: FB-231215-1 | | | | | | | | | | | | |
| Lead, Total | ND | 530 | 550.3 | 104 | | - | - | | 75-125 | - | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Project Number: P044.001.002

Lab Number: L2374526

Report Date: 12/26/23

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-07,09 QC Batch ID: WG1865412-4 QC Sample: L2373843-01 Client ID: DUP Sample | | | | | | |
| Lead, Total | 319 | 405 | mg/kg | 24 | Q | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 10 QC Batch ID: WG1866341-4 QC Sample: L2374526-10 Client ID: FB-231215-1 | | | | | | |
| Lead, Total | ND | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-01
Client ID: GPR251-01-SS01
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 14:12
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 84.3 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-02
Client ID: GPR250-02-SS01
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:26
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 83.8 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-03
Client ID: GPR251-02-SS01
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:08
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 86.7 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-04
Client ID: GPR251-03-SS01
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:45
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 82.9 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-05
Client ID: GPR251-04-SS01
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:33
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 75.2 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADELPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**SAMPLE RESULTS**

Lab ID: L2374526-06

Date Collected: 12/15/23 15:17

Client ID: GPR250-03-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 83.4 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-07
Client ID: GPR250-03-SS01D
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 83.4 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**SAMPLE RESULTS**

Lab ID: L2374526-09

Date Collected: 12/15/23 14:38

Client ID: GPR250-01-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 82.8 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Project Number: P044.001.002

Lab Number: L2374526

Report Date: 12/26/23

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-07,09 QC Batch ID: WG1864892-1 QC Sample: L2373100-01 Client ID: DUP Sample | | | | | | |
| Solids, Total | 68.9 | 69.3 | % | 1 | | 20 |

Project Name: FORMER PHILADEPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

| Cooler | Custody Seal |
|---------------|---------------------|
| A | Absent |
| B | Absent |

Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|--|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2374526-01A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-01B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-01C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-01D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-01E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-01F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-02A | Vial water preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-02B | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-02C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-02D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-02E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-02F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-03A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-03B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-03C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-03D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-03E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-03F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-04A | Vial water preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-04B | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-04C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-04D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |

Project Name: FORMER PHILADEPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**Container Information**

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|--|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2374526-04E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-04F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-05A | Vial water preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-05B | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-05C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-05D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-05E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-05F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-06A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-06B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-06C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-06D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-06E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-06F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-07A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-07B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-07C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-07D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-07E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-07F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-08A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | HOLD-8260HLW(14) |
| L2374526-08B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | HOLD-8260HLW(14) |
| L2374526-08C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | HOLD-8260HLW(14) |
| L2374526-08D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | HOLD-WETCHEM() |
| L2374526-08E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | HOLD-METAL(180) |
| L2374526-08F | Glass 120ml/4oz unpreserved | NA | NA | | | Y | Absent | | HOLD-8260HLW(14) |
| L2374526-09A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-09B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |

Project Name: FORMER PHILADEPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**Container Information**

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|--|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|----------------------|
| L2374526-09C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-09D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-09E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-09F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-10A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374526-10B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14),PA-8260(14) |
| L2374526-10C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374526-10D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020T-PPB(180) |
| L2374526-10E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374526-10F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374526-11A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374526-11B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14),PA-8260(14) |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

GLOSSARY

Acronyms

| | |
|----------|--|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| NR | - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

Report Format: DU Report with 'J' Qualifiers



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625.1: alpha-Terpineol

EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

PADEP Short List 1-5:

Benzene
Cumene
1,2 – Dibromoethane
1,2 – Dichloroethane
Ethyl Benzene
Toluene
1,2,4 – Trimethylbenzene
1,3,5 – Trimethylbenzene
Methyl tert-butyl ether
Xylenes (total)
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Chrysene
Fluorene
Naphthalene
Phenanthrene
Pyrene
Lead



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L2374524 |
| Client: | Terraphase Engineering Inc. 1100 Canal Pointe Boulevard Suite 100 Princeton, NJ 08540 |
| ATTN: | Nick Scala |
| Phone: | (609) 236-8171 |
| Project Name: | FORMER PHILADELPHIA REFINERY |
| Project Number: | P044.001.002 |
| Report Date: | 12/27/23 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|----------------------------|--------------------|---------------|----------------------------|---------------------------------|---------------------|
| L2374524-01 | TG07A-PZ01-231215 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 08:27 | 12/15/23 |
| L2374524-02 | TG07A-PZ02-231215 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 09:57 | 12/15/23 |
| L2374524-03 | TG07A-SW02-231215 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 10:46 | 12/15/23 |
| L2374524-04 | TG07A-SW01-231215 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 16:39 | 12/15/23 |
| L2374524-05 | FB-231215-2 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 18:45 | 12/15/23 |
| L2374524-06 | TB-231215-2 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 19:00 | 12/15/23 |
| L2374524-07 | TG07A-PZ01-231215D | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 08:27 | 12/15/23 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Case Narrative (continued)

Report Revision

December 27, 2023: The Volatile Organics analyte list has been amended on L2374524-01 through -07.

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2374524-07: A sample identified as "TG07A-PZ01-231215D" was received, but not listed on the Chain of Custody. At the client's request, this sample was analyzed.

Microextractables

L2374524-01, -02, -03, -04, -05, -06, and -07: The sample was in improper preservative. The 8011 compound was analyzed from an HCl preserved vial.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Caitlin Walukevich

Title: Technical Director/Representative

Date: 12/27/23

ORGANICS

VOLATILES

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-01
 Client ID: TG07A-PZ01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 19:04
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-01
 Client ID: TG07A-PZ01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 21:58
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 100 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 107 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-02
 Client ID: TG07A-PZ02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 09:57
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 19:12
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-02
 Client ID: TG07A-PZ02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 09:57
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 22:24
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|------|-----------------|
| Volatiles Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 102 | | 70-130 |
| Toluene-d8 | 109 | | 70-130 |
| 4-Bromofluorobenzene | 104 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-03
 Client ID: TG07A-SW02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 10:46
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 19:20
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-03
 Client ID: TG07A-SW02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 10:46
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 22:50
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | 0.20 | J | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | 0.19 | J | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 102 | | 70-130 |
| Toluene-d8 | 107 | | 70-130 |
| 4-Bromofluorobenzene | 108 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-04
 Client ID: TG07A-SW01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:39
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 19:28
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-04
 Client ID: TG07A-SW01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:39
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 23:16
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | 0.19 | J | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | 0.19 | J | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 103 | | 70-130 |
| Toluene-d8 | 110 | | 70-130 |
| 4-Bromofluorobenzene | 107 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-05
 Client ID: FB-231215-2
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:45
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 18:40
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-05
 Client ID: FB-231215-2
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:45
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 23:42
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 104 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-06
 Client ID: TB-231215-2
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 19:00
 Date Received: 12/15/23
 Field Prep: None

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 18:48
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-06
 Client ID: TB-231215-2
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 19:00
 Date Received: 12/15/23
 Field Prep: None

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/22/23 00:08
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 103 | | 70-130 |
| Toluene-d8 | 109 | | 70-130 |
| 4-Bromofluorobenzene | 107 | | 70-130 |
| Dibromofluoromethane | 100 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-07
 Client ID: TG07A-PZ01-231215D
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 18:56
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-07
 Client ID: TG07A-PZ01-231215D
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/22/23 00:33
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 105 | | 70-130 |
| Toluene-d8 | 107 | | 70-130 |
| 4-Bromofluorobenzene | 105 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8011
Analytical Date: 12/21/23 17:35
Analyst: JKH

Extraction Method: EPA 8011
Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | |
|---|--------|-----------|-------|-------|-------|---|
| Microextractables by GC - Westborough Lab for sample(s): 01-07 Batch: WG1866933-1 | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/21/23 21:06
Analyst: MAG

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|------|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1867314-5 | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 |
| Benzene | ND | | ug/l | 0.50 | 0.16 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 |
| Toluene | ND | | ug/l | 0.75 | 0.20 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 101 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 109 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Project Number: P044.001.002

Lab Number: L2374524

Report Date: 12/27/23

| Parameter | <i>LCS</i> %Recovery | <i>Qual</i> | <i>LCSD</i> %Recovery | <i>Qual</i> | <i>%Recovery</i> Limits | <i>RPD</i> | <i>Qual</i> | <i>RPD</i> Limits | <i>Column</i> |
|--|-------------------------|-------------|--------------------------|-------------|----------------------------|------------|-------------|----------------------|---------------|
| Microextractables by GC - Westborough Lab Associated sample(s): 01-07 Batch: WG1866933-2 | | | | | | | | | |
| 1,2-Dibromoethane | 99 | | - | | 80-120 | - | | 20 | A |

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374524

Project Number: P044.001.002

Report Date: 12/27/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1867314-3 WG1867314-4 | | | | | | | | |
| Methyl tert butyl ether | 89 | | 88 | | 63-130 | 1 | | 20 |
| Benzene | 98 | | 97 | | 70-130 | 1 | | 20 |
| 1,2-Dichloroethane | 98 | | 96 | | 70-130 | 2 | | 20 |
| Toluene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Ethylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |
| p/m-Xylene | 105 | | 105 | | 70-130 | 0 | | 20 |
| o-Xylene | 105 | | 100 | | 70-130 | 5 | | 20 |
| Isopropylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |
| 1,3,5-Trimethylbenzene | 110 | | 100 | | 64-130 | 10 | | 20 |
| 1,2,4-Trimethylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|-----------------------|------------------|------|-------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 101 | | 99 | | 70-130 |
| Toluene-d8 | 108 | | 107 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 106 | | 70-130 |
| Dibromofluoromethane | 99 | | 100 | | 70-130 |

SEMIVOLATILES

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-01
 Client ID: TG07A-PZ01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/22/23 10:27
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 78 | | 23-120 |
| 2-Fluorobiphenyl | 75 | | 15-120 |
| 4-Terphenyl-d14 | 70 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-02
 Client ID: TG07A-PZ02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 09:57
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/21/23 17:53
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 66 | | 23-120 |
| 2-Fluorobiphenyl | 64 | | 15-120 |
| 4-Terphenyl-d14 | 62 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-03
 Client ID: TG07A-SW02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 10:46
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/21/23 18:10
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | 0.03 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | 0.02 | J | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 51 | | 23-120 |
| 2-Fluorobiphenyl | 50 | | 15-120 |
| 4-Terphenyl-d14 | 48 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-04
 Client ID: TG07A-SW01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:39
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/21/23 18:26
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | 0.02 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | 0.01 | J | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 65 | | 23-120 |
| 2-Fluorobiphenyl | 63 | | 15-120 |
| 4-Terphenyl-d14 | 56 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-05
 Client ID: FB-231215-2
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:45
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/21/23 18:43
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 73 | | 23-120 |
| 2-Fluorobiphenyl | 69 | | 15-120 |
| 4-Terphenyl-d14 | 64 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-07
 Client ID: TG07A-PZ01-231215D
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/22/23 10:44
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 71 | | 23-120 |
| 2-Fluorobiphenyl | 70 | | 15-120 |
| 4-Terphenyl-d14 | 70 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270E-SIM
Analytical Date: 12/21/23 17:36
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|------|------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05,07 Batch: WG1866777-1 | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|------------------|-----------|-----------|------------------------|
| Nitrobenzene-d5 | 80 | | 23-120 |
| 2-Fluorobiphenyl | 75 | | 15-120 |
| 4-Terphenyl-d14 | 71 | | 41-149 |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05,07 Batch: WG1866777-2 WG1866777-3 | | | | | | | | |
| Naphthalene | 58 | | 75 | | 40-140 | 26 | | 40 |
| Fluorene | 59 | | 76 | | 40-140 | 25 | | 40 |
| Phenanthrene | 58 | | 74 | | 40-140 | 24 | | 40 |
| Anthracene | 59 | | 76 | | 40-140 | 25 | | 40 |
| Pyrene | 55 | | 68 | | 26-127 | 21 | | 40 |
| Benzo(a)anthracene | 66 | | 86 | | 40-140 | 26 | | 40 |
| Chrysene | 61 | | 78 | | 40-140 | 24 | | 40 |
| Benzo(b)fluoranthene | 59 | | 74 | | 40-140 | 23 | | 40 |
| Benzo(a)pyrene | 57 | | 72 | | 40-140 | 23 | | 40 |
| Benzo(ghi)perylene | 66 | | 83 | | 40-140 | 23 | | 40 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|------------------|------------------|------|-------------------|------|------------------------|
| Nitrobenzene-d5 | 67 | | 84 | | 23-120 |
| 2-Fluorobiphenyl | 61 | | 75 | | 15-120 |
| 4-Terphenyl-d14 | 55 | | 67 | | 41-149 |



Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Project Number: P044.001.002

Lab Number: L2374524

Report Date: 12/27/23

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Semivolatiles by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05,07 QC Batch ID: WG1866777-4 QC Sample: L2374524-01 Client ID: TG07A-PZ01-231215 | | | | | | |
| Naphthalene | ND | 0.46 | ug/l | NC | | 40 |
| Fluorene | ND | 0.02J | ug/l | NC | | 40 |
| Phenanthrene | ND | 0.03J | ug/l | NC | | 40 |
| Anthracene | ND | ND | ug/l | NC | | 40 |
| Pyrene | ND | ND | ug/l | NC | | 40 |
| Benzo(a)anthracene | ND | ND | ug/l | NC | | 40 |
| Chrysene | ND | ND | ug/l | NC | | 40 |
| Benzo(b)fluoranthene | ND | ND | ug/l | NC | | 40 |
| Benzo(a)pyrene | ND | ND | ug/l | NC | | 40 |
| Benzo(ghi)perylene | ND | ND | ug/l | NC | | 40 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|------------------|-----------|-----------|-----------|-----------|---------------------|
| Nitrobenzene-d5 | 78 | | 60 | | 23-120 |
| 2-Fluorobiphenyl | 75 | | 59 | | 15-120 |
| 4-Terphenyl-d14 | 70 | | 54 | | 41-149 |

METALS

Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374524

Project Number: P044.001.002

Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-01

Date Collected: 12/15/23 08:27

Client ID: TG07A-PZ01-231215

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | 1.609 | | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 17:18 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374524

Project Number: P044.001.002

Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-02

Date Collected: 12/15/23 09:57

Client ID: TG07A-PZ02-231215

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | ND | | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 18:06 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374524

Project Number: P044.001.002

Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-03

Date Collected: 12/15/23 10:46

Client ID: TG07A-SW02-231215

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | 2.074 | | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 18:11 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374524

Project Number: P044.001.002

Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-04

Date Collected: 12/15/23 16:39

Client ID: TG07A-SW01-231215

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | 0.8006 | J | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 18:16 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374524

Project Number: P044.001.002

Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-05

Date Collected: 12/15/23 18:45

Client ID: FB-231215-2

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | ND | | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 18:20 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374524

Project Number: P044.001.002

Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-07

Date Collected: 12/15/23 08:27

Client ID: TG07A-PZ01-231215D

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | 0.4309 | J | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 08:33 | 12/21/23 14:07 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Method Blank Analysis Batch Quality Control

| Parameter | Result Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|------------------|-------|-------|--------|-----------------|----------------|----------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1865448-1 | | | | | | | | | |
| Lead, Dissolved | ND | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 16:55 | 1,6020B | EJF |

Prep Information

Digestion Method: EPA 3005A

| Parameter | Result Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|------------------|-------|-------|--------|-----------------|----------------|----------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab for sample(s): 07 Batch: WG1866342-1 | | | | | | | | | |
| Lead, Dissolved | ND | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 08:33 | 12/21/23 13:44 | 1,6020B | EJF |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FORMER PHILADELPHIA REFINERY**Lab Number:** L2374524**Project Number:** P044.001.002**Report Date:** 12/27/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-------------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1865448-2 | | | | | | | | |
| Lead, Dissolved | 104 | | - | | 80-120 | - | | |
| Dissolved Metals - Mansfield Lab Associated sample(s): 07 Batch: WG1866342-2 | | | | | | | | |
| Lead, Dissolved | 106 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | MSD Qual | MSD Found | MSD %Recovery | MSD Qual | Recovery Limits | RPD | RPD Qual | RPD Limits |
|---|---------------|----------|----------|--------------|----------|-----------|---------------|----------|-----------------|-----|----------|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1865448-3 QC Sample: L2374524-01 Client ID: TG07A-PZ01-231215 | | | | | | | | | | | | |
| Lead, Dissolved | 1.609 | 530 | 564.8 | 106 | - | - | - | - | 75-125 | - | - | 20 |
| Dissolved Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG1866342-3 QC Sample: L2374524-07 Client ID: TG07A-PZ01-231215D | | | | | | | | | | | | |
| Lead, Dissolved | 0.4309J | 530 | 541.2 | 102 | - | - | - | - | 75-125 | - | - | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Project Number: P044.001.002

Lab Number: L2374524

Report Date: 12/27/23

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1865448-4 QC Sample: L2374524-01 Client ID: TG07A-PZ01-231215 | | | | | | |
| Lead, Dissolved | 1.609 | 0.4029J | ug/l | NC | | 20 |
| Dissolved Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG1866342-4 QC Sample: L2374524-07 Client ID: TG07A-PZ01-231215D | | | | | | |
| Lead, Dissolved | 0.4309J | 0.4608J | ug/l | NC | | 20 |

Project Name: FORMER PHILADELPHIA REFINERY**Lab Number:** L2374524**Project Number:** P044.001.002**Report Date:** 12/27/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

| Cooler | Custody Seal |
|---------------|---------------------|
| A | Absent |
| B | Absent |

Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|------------------------------|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2374524-01A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-01A1 | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-01B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-01B1 | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-01C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-01C1 | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-01D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |
| L2374524-01D1 | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-01E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-01E1 | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-01F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-01F1 | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-02A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-02B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-02C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-02D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |
| L2374524-02E | Amber 250ml unpreserved | A | 9 | 9 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-02F | Amber 250ml unpreserved | A | 9 | 9 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-03A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-03B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-03C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-03D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |

Project Name: FORMER PHILADELPHIA REFINERY**Lab Number:** L2374524**Project Number:** P044.001.002**Report Date:** 12/27/23**Container Information**

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|------------------------------|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2374524-03E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-03F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-04A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-04B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-04C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-04D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |
| L2374524-04E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-04F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-05A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-05B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-05C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-05D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |
| L2374524-05E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-05F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-06A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-06B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-07A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-07B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-07C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-07D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |
| L2374524-07E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-07F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

GLOSSARY

Acronyms

| | |
|----------|--|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| NR | - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

Report Format: DU Report with 'J' Qualifiers



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625.1: alpha-Terpineol

EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



CHAIN OF CUSTODY

PAGE 1 OF 1

WESTBORO, MA TEL: 508-898-9220
 MANSFIELD, MA TEL: 508-822-9300
 FAX: 508-898-9193 FAX: 508-822-3288

Project Information

Project Name: ~~PHARM~~ Former Philadelphia Refinery
 Project Location: 3144 W. Passyunk Ave

Project #: P044.001.002

Project Manager: Nick Scala

ALPHA Quote #:

Turn-Around Time

Standard RUSH (only confirmed if pre-approved!)

Date Due: _____ Time: _____

Client Information

Client: ~~PHARM~~ Terraphase Engineering

Address: ~~3144 W. Passyunk Ave~~
 100 Canal Pointe Blvd. Suite 110
 Princeton, NJ

Phone: 215-297-3502

Fax:

Email: nick.scala@terraphase.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:
 please see attached short list. VOCs need 8260 + 8011, lead is dissolved.

please send EDD to Ed@terraphase.com (Equis format)

Date Rec'd in Lab: 12/16/23

ALPHA Job #: C2374524

Report Information - Data Deliverables

FAX EMAIL
 ADEx Add'l Deliverables

Billing Information

Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program

Criteria

ANALYSIS
 Short list 1-5 (VOCs, 8260 + 8011, Dissolve lead)

SAMPLE HANDLING

Filtration field
 Done
 Not needed
 Lab to do
 Preservation
 Lab to do
 (Please specify below)

TOTAL # BOTTLES

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection | | Sample Matrix | Sampler's Initials | |
|--------------------------------|-------------------|------------|-------|---------------|--------------------|---|
| | | Date | Time | | | |
| 74524-01 | TG07A-P201-231215 | 12/15/23 | 8:27 | GW | KJO | X |
| 02 | TG07A-P202-231215 | 12/15/23 | 9:57 | GW | KJO | ✓ |
| 03 | TG07A-SW02-231215 | 12/15/23 | 10:46 | GW | KJO | X |
| 04 | TG07A-SW01-231215 | 12/15/23 | 16:39 | GW | KJO | X |
| 05 | FB-231215-2 | 12/15/23 | 18:45 | FB | KJO | X |
| 06 | TB-231215-2 | 12/15/23 | 19:00 | TB | KJO | X |

Container Type

Preservative

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Date/Time

Received By:

Date/Time

Anthony Green
 Anthony Green

12/15/23 2:00
 12/16/23 01:30

Anthony Green
 Anthony Green

12/15/23 2:15
 DEC 15 2023 2:15
 12/16/23

PADEP Short List 1-5:

Benzene
Cumene
1,2 – Dibromoethane
1,2 – Dichloroethane
Ethyl Benzene
Toluene
1,2,4 – Trimethylbenzene
1,3,5 – Trimethylbenzene
Methyl tert-butyl ether
Xylenes (total)
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Chrysene
Fluorene
Naphthalene
Phenanthrene
Pyrene
Lead

Appendix C

October 4, 2023 *Technical Memorandum - Tank Group 07A Gauging Summary* prepared by Terraphase Engineering on behalf of PESRM





Technical Memorandum

To: Lisa Strobridge, PG
Department of Environmental Protection
Southeast Regional Office

From: Terraphase Engineering Inc.

cc: Philadelphia Energy Solutions Refining and
Marketing LLC
c/o Joseph Jeray, PE, Vice President Hilco
Redevelopment Partners

Date: October 4, 2023
Project No.: P044.001.002

Subject: **Tank Group 07A Gauging Summary**
Former Philadelphia Energy Solutions Refinery, Philadelphia, PA

Terraphase Engineering Inc. (Terraphase) prepared this memorandum, on behalf of the Philadelphia Energy Solutions Refining and Marketing LLC (PESRM), to present results of water level monitoring in the Tank Group 07A area. The results of the monitoring will be used to support obtaining regulatory closure of the tanks GP R 250 and 251, known as Tank Group 07A, at the former Philadelphia Energy Solutions (PES) Refinery property located at 3144 Passyunk Avenue in Philadelphia, Pennsylvania. Specifically, if groundwater levels do not lower to a point where Site Assessment samples can be collected, this information will be utilized to support an alternate sampling scope proposal to the Pennsylvania Department of Environmental Protection (PADEP).

Background

Standing water has been observed within the containment berm for former tanks GP R 250 and 251 for several months. The water was initially considered to be pooled stormwater that would evaporate and eventually dry to allow for soil sampling. NorthStar Contracting Group, Inc. conducted dewatering activities in the area. A diesel-powered trash pump was operated for over 175 hours in an attempt to remove the standing water. The dewatering effort was unsuccessful, as soil conditions were still considered too saturated for sampling.

In addition, Terraphase has conducted a comparison of recent groundwater elevations to the surface elevation in the area. The analysis indicated that groundwater is at an elevation similar to or greater than the ground surface elevation in the area of the two tanks.

These two lines of evidence indicate that the standing water present in the GP R 250 and 251 tank containment area is likely daylighted groundwater. During a call on May 11, 2023, PADEP suggested that piezometers be installed to further evaluate standing water/daylighted groundwater observed in the GP R 250 and 251 tank containment area.

Piezometer Installation

On July 7, 2023, Terraphase installed two AMS™ stainless steel drive-point piezometers (TG07A-PZ-01 and TG07A-PZ-02) near the edge of the standing water surrounding the former locations of GP R 250 and 251. Piezometer TG07A-PZ-01 was installed east of the tank berm. Piezometer TG07A-PZ-02 was installed in a constructed access ramp on the western side of the area. The piezometer locations are depicted on Figure 1.

The piezometers were installed using hammer drill. The AMS™ stainless steel drive-point piezometers contain a 14-inch-long slotted screen. Each point was installed to intercept the anticipated groundwater table based on historical groundwater elevations in surrounding wells. TG07A-PZ-01 and TG07A-PZ-02 were installed to a depth of approximately 2 feet bgs and the stainless-steel rod attached to the screen was allowed to stick up above the ground surface. A hydrated bentonite seal was placed around the point at ground surface to prevent surface water infiltration. Neither of the piezometers was located within the observed standing water, nor was standing water observed at the ground surface of the piezometer locations during the weekly monitoring (discussed below). The location and elevation of each piezometer was surveyed by Vargo Associates of Franklinville, NJ.

Weekly Monitoring

Terraphase measured groundwater levels in the new piezometers (see Figure 1) daily from July 11 through July 14, 2023, then the monitoring was performed weekly for an additional 5 weeks through August 18, 2023. In addition, photographs were taken during each weekly gauging event to document the standing water conditions. A photolog depicting the conditions of the area is provided in Attachment A. Lastly, Terraphase marked a measuring point location on the concrete containment wall along the southern portion of the tank group, and the measuring point location was also surveyed by Vargo. The concrete measuring point allowed for a direct measurement of the standing water located within the tank group.

During each monitoring event, groundwater level measurements were collected from each of the monitoring points using an electronic water level indicator. Groundwater elevations were then calculated as summarized in Table 1. As shown on Table 1, the groundwater elevation in piezometer TG07A-PZ-01 was greater than or equal to the elevation of the surface water (as measured from the measuring point on the concrete wall) during all nine gauging events. The groundwater elevation in TG07A-PZ-02 was greater than or equal to the elevation of the surface water in six of the nine sampling events and was within 0.05 ft of the surface water elevation in the other gauging events. These measurements indicate that the surface water in TG07A is daylighted groundwater.

Based on this analysis, PESRM would like to re-visit our discussion regarding an alternative Site Assessment sampling approach. Please let us know when you are available to discuss.

Attachments (3):

Table 1 – Monitoring Well Gauging Summary

Figure 1 – Gauging Locations Tank Group 07A

Attachment A – TG07A Gauging Photograph Log



Tables

- 1 Monitoring Well Gauging Summary



Table 01
Monitoring Well Gauging Summary
Tank Group 07A
Philadelphia Energy Solutions Refining and Marketing LLC, Philadelphia, PA

| Location ID | TOIC (ft AMSL) | DTB (ft AMSL) | July 11, 2023 | | July 12, 2023 | | July 13, 2023 | | July 14, 2023 | | July 20, 2023 | | July 26, 2023 | | August 2, 2023 | | August 9, 2023 | | August 18, 2023 | |
|------------------|-------------------|------------------|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|
| | | | Depth to Water (ft below TOIC) | Groundwater/ Surface Water Elevation (ft AMSL) | Depth to Water (ft below TOIC) | Groundwater/ Surface Water Elevation (ft AMSL) | Depth to Water (ft below TOIC) | Groundwater/ Surface Water Elevation (ft AMSL) | Depth to Water (ft below TOIC) | Groundwater/ Surface Water Elevation (ft AMSL) | Depth to Water (ft below TOIC) | Groundwater/ Surface Water Elevation (ft AMSL) | Depth to Water (ft below TOIC) | Groundwater/ Surface Water Elevation (ft AMSL) | Depth to Water (ft below TOIC) | Groundwater/ Surface Water Elevation (ft AMSL) | Depth to Water (ft below TOIC) | Groundwater/ Surface Water Elevation (ft AMSL) | Depth to Water (ft below TOIC) | Groundwater/ Surface Water Elevation (ft AMSL) |
| TG 07A-PZ-01 | 9.55 | 5.25 | 3.25 | 6.30 | 3.21 | 6.34 | 3.30 | 6.25 | 3.23 | 6.32 | 3.02 | 6.53 | 3.05 | 6.50 | 3.26 | 6.29 | 3.02 | 6.53 | 3.19 | 6.36 |
| TG 07A-PZ-02 | 9.52 | 5.22 | 3.27 | 6.25 | 3.22 | 6.30 | 3.32 | 6.20 | 3.31 | 6.21 | 3.01 | 6.51 | 3.09 | 6.43 | 3.24 | 6.28 | 3.09 | 6.43 | 3.16 | 6.36 |
| Concrete Wall 01 | 11.8 | 3.81* | 5.48 | 6.30 | 5.53 | 6.25 | 5.54 | 6.24 | 5.56 | 6.22 | 5.32 | 6.46 | 5.42 | 6.36 | 5.50 | 6.28 | 5.42 | 6.36 | 5.51 | 6.27 |

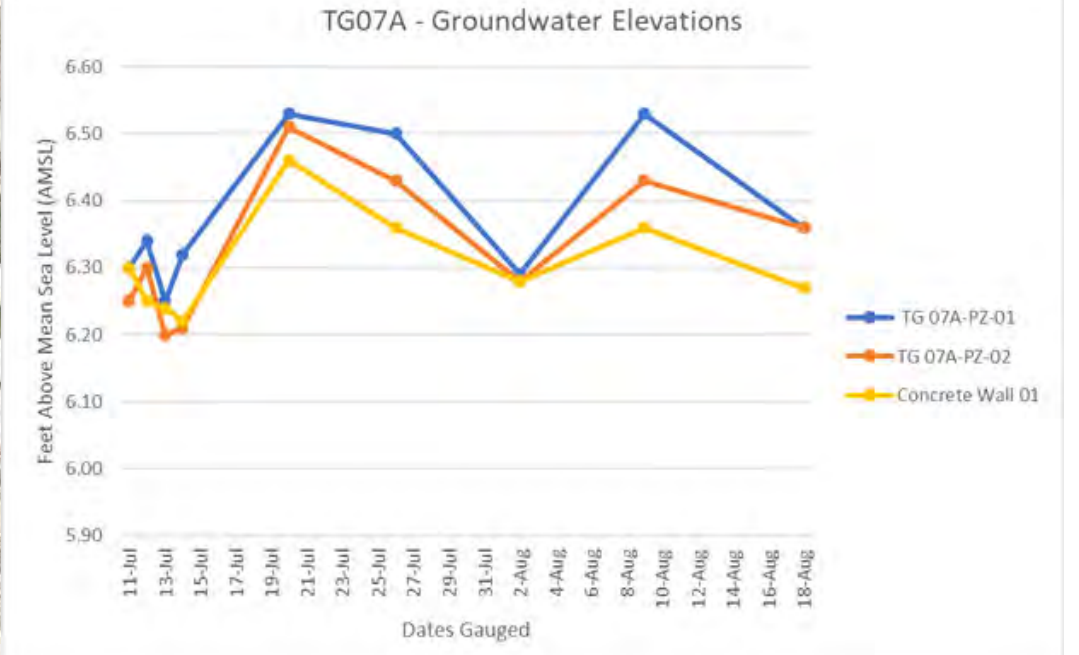
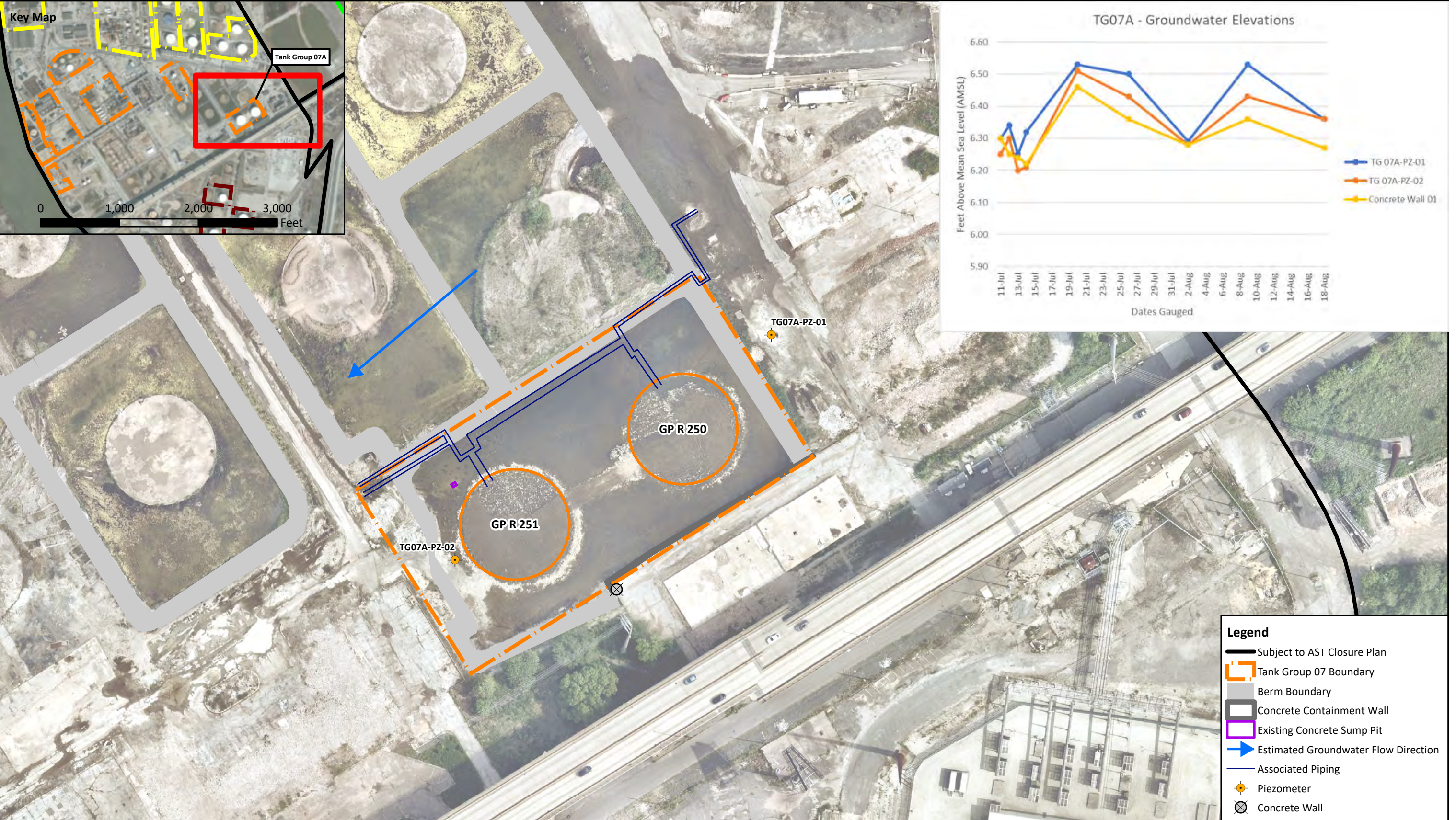
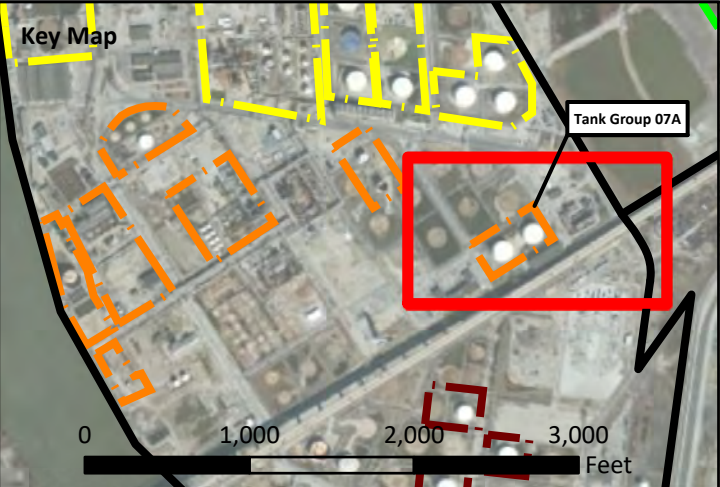
Notes:
Vertical Datum is NAVD 1988.
Surveyed by Vargo Associates on July, 12 2023
Elevations at the Concrete Wall 01 measuring point are surface water elevations
* -- Value represents ground surface within tank area

Figures

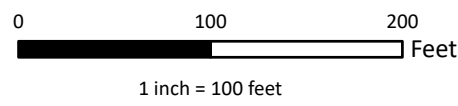
1 Gauging Locations Tank Group 07A



File: N:\GIS\PA\P044.001_PESRM-PES\MXD\AST Work\Tank Group 07A\20230908\Figure 1 - Gauging Locations.mxd 10/4/2023 Created by: Resource Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet



Note:
Aerial imagery source: Nearmap (May 14, 20123)



| | | |
|------|--|--|
| | CLIENT: Philadelphia Energy Solutions Refining and Marketing LLC | Gauging Locations Tank Group 07A Figure 1 |
| | PROJECT: Aboveground Storage Tank Closure | |
| | PROJECT NUMBER: P044.001.002 | |

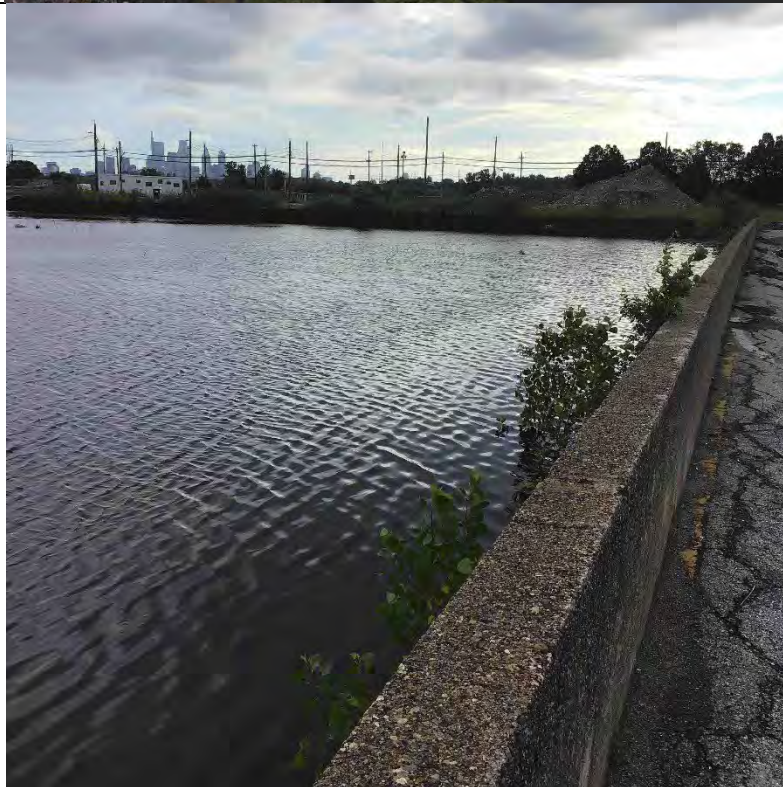
Attachment A

TG07A Gauging Photograph Log





Photograph 1:
Standing water level
Date: July 7, 2023



Photograph 2:
Standing water level
Date: July 10, 2023



Client: Philadelphia Energy Solutions Refining and Marketing LLC

Project: TG07A Piezometer Monitoring – 3144 W. Passyunk Ave, Philadelphia, PA

Project Number: P044.001.002

Photo Log



Photograph 3:

Standing water level

Date: July 11, 2023



Photograph 4:

Standing water level

Date: July 12, 2023



Client: Philadelphia Energy Solutions Refining and Marketing LLC

Project: TG07A Piezometer Monitoring – 3144 W. Passyunk Ave, Philadelphia, PA

Project Number: P044.001.002

Photo Log



Location name: 'Default Site Location', Date: 07/13/2023 11:42, Azimuth: 0.0, Latitude: 39.902657668491904, Longitude: -75.2027006261751

Photograph 5:
 Standing water level
 Date: July 13, 2023



Location name: 'Default Site Location', Date: 07/14/2023 09:00, Azimuth: 0.0, Latitude: 39.90263227157651, Longitude: -75.20280105978413

Photograph 6:
 Standing water level
 Date: July 14, 2023



Client: Philadelphia Energy Solutions Refining and Marketing LLC

Project: TG07A Piezometer Monitoring – 3144 W. Passyunk Ave, Philadelphia, PA

Project Number: P044.001.002

Photo Log

Page 3



Photograph 7:
 Standing water level
 Date: July 20, 2023



Photograph 8:
 Standing water level
 Date: July 26, 2023



Client: Philadelphia Energy Solutions Refining and Marketing LLC

Project: TG07A Piezometer Monitoring – 3144 W. Passyunk Ave, Philadelphia, PA

Project Number: P044.001.002

Photo Log



Location name: 'Default Site Location', Date: 08/02/2023 09:11, Azimuth: 0.0, Latitude: 39.90205101206895, Longitude: -75.20396738320142

Photograph 9:

Standing water level

Date: August 2, 2023



Location name: 'Default Site Location', Date: 08/09/2023 09:24, Azimuth: 0.0, Latitude: 39.9020925710127, Longitude: -75.20325871038929

Photograph 10:

Standing water level

Date: August 9, 2023



Client: Philadelphia Energy Solutions Refining and Marketing LLC

Project: TG07A Piezometer Monitoring – 3144 W. Passyunk Ave, Philadelphia, PA

Project Number: P044.001.002

Photo Log



Location name: 'Default Site Location', Date: 08/18/2023 08:57, Azimuth: 0.0, Latitude: 39.9019918902119, Longitude: -75.20333757090674

Photograph 11:

Standing water level

Date: August 18, 2023



Client: Philadelphia Energy Solutions Refining and Marketing LLC

Project: TG07A Piezometer Monitoring – 3144 W. Passyunk Ave, Philadelphia, PA

Project Number: P044.001.002

Photo Log

Appendix D

Soil Boring Logs and Piezometer Completion Records



Project: **Former Philadelphia Refinery**
 Project Location: **3144 W. Passyunk Avenue**
 Project Number: **P044.001.002**

Log of Boring GPR251-01
Sheet 1 of 1

| | | |
|---|---|--|
| Date(s) Drilled 12/15/23 | Logged By K. O'Rourke | Checked By A. Strohl |
| Drilling Method Direct Push | Drill Bit Size/Type 2" x 5' macrocore | Total Depth of Borehole 5 feet bgs |
| Drill Rig Type Geoprobe 7822DT | Drilling Contractor MB Drilling | Elevation NA |
| Groundwater Level 0.5 feet bgs | Sampling Method(s) Grab | Temporary Well NA |
| Borehole Backfill Soil Cuttings | Location Tank Group 07A | |

| Depth (feet) | Recovery (inches) | Sample Type | USCS Symbol | Graphic Log | MATERIAL DESCRIPTION | PID Reading, ppm | REMARKS AND OTHER TESTS |
|--------------|-------------------|-------------|-------------|-------------|---|------------------|---|
| 0 | | | SM | | SILTY SAND, tan brown, dense, moist, poorly graded | 0 | Sample GPR251-01-SS01 from 0.0-0.5' bgs |
| | | | GM | | SILT AND GRAVEL, tan brown, wet, dense, well graded | 0 | |
| | | | GP | | SAND AND GRAVEL, tan brown, wet, loose, well graded | 0 | |
| 2 | 21/60 | | SM | | SILTY SAND, tan brown, dense, wet, poorly graded | 1.6 | |
| 4 | | | | | | 0 | |
| 6 | | | | | End of boring | 0 | |
| 8 | | | | | | 0 | |
| 10 | | | | | | 0 | |
| 12 | | | | | | 0 | |
| 14 | | | | | | 0 | |
| 16 | | | | | | 0 | |
| 18 | | | | | | 0 | |
| 20 | | | | | | 0 | |

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Project: **Former Philadelphia Refinery**
 Project Location: **3144 W. Passyunk Avenue**
 Project Number: **P044.001.002**

Log of Boring GPR251-02
Sheet 1 of 1

| | | |
|---|---|--|
| Date(s) Drilled 12/15/23 | Logged By K. O'Rourke | Checked By A. Strohl |
| Drilling Method Direct Push | Drill Bit Size/Type 2" x 5' macrocore | Total Depth of Borehole 5 feet bgs |
| Drill Rig Type Geoprobe 7822DT | Drilling Contractor MB Drilling | Elevation NA |
| Groundwater Level 4.0 feet bgs | Sampling Method(s) Grab | Temporary Well NA |
| Borehole Backfill Soil Cuttings | Location Tank Group 07A | |

| Depth (feet) | Recovery (inches) | Sample Type | USCS Symbol | Graphic Log | MATERIAL DESCRIPTION | PID Reading, ppm | REMARKS AND OTHER TESTS |
|--------------|-------------------|-------------|-------------|-------------|--|------------------|---|
| 0 | | | GW | | GRAVEL, dark brown, poorly graded, loose, moist | 0 | |
| | | | CL | | CLAY, tan brown, firm, medium plasticity, low dilatancy, mottling, moist | 0 | |
| 2 | 48/60 | | | | | 0 | |
| 4 | | | SM | | SILTY SAND, tan brown, dense, poorly graded, wet | 0 | Sample GPR251-02-SS01 from 3.0-3.5' bgs |
| 5 | | | | | End of boring | 0 | |
| 6 | | | | | | | |
| 8 | | | | | | | |
| 10 | | | | | | | |
| 12 | | | | | | | |
| 14 | | | | | | | |
| 16 | | | | | | | |
| 18 | | | | | | | |
| 20 | | | | | | | |

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Project: **Former Philadelphia Refinery**
 Project Location: **3144 W. Passyunk Avenue**
 Project Number: **P044.001.002**

Log of Boring GPR251-03
Sheet 1 of 1




| | | |
|---|---|--|
| Date(s) Drilled 12/15/23 | Logged By K. O'Rourke | Checked By A. Strohl |
| Drilling Method Direct Push | Drill Bit Size/Type 2" x 5' macrocore | Total Depth of Borehole 5 feet bgs |
| Drill Rig Type Geoprobe 7822DT | Drilling Contractor MB Drilling | Elevation NA |
| Groundwater Level 3.0 feet bgs | Sampling Method(s) Grab | Temporary Well NA |
| Borehole Backfill Soil Cuttings | Location Tank Group 07A | |

| Depth (feet) | Recovery (inches) | Sample Type | USCS Symbol | Graphic Log | MATERIAL DESCRIPTION | PID Reading, ppm | REMARKS AND OTHER TESTS |
|--------------|-------------------|-------------|-------------|-------------|--|------------------|---|
| 0 | | | GW | | GRAVEL, tan brown, well graded, loose, moist, large, angular pieces | 0 | Sample GPR251-03-SS01 from 2.5-3.0' bgs |
| 2 | 22/60 | | CL | | CLAY, tan brown, moist, firm, medium plasticity, low dilatancy, mottling | 0 | |
| 4 | | | SM | | SILTY SAND, tan brown, loose, poorly graded, wet | 0 | |
| 4.5 | | | | | brick fragments | 0 | |
| 5 | | | | | End of boring | 0 | |
| 6 | | | | | | | |
| 8 | | | | | | | |
| 10 | | | | | | | |
| 12 | | | | | | | |
| 14 | | | | | | | |
| 16 | | | | | | | |
| 18 | | | | | | | |
| 20 | | | | | | | |

Project: **Former Philadelphia Refinery**
 Project Location: **3144 W. Passyunk Avenue**
 Project Number: **P044.001.002**

Log of Boring GPR251-04
Sheet 1 of 1

| | | |
|---|---|--|
| Date(s) Drilled 12/15/23 | Logged By K. O'Rourke | Checked By A. Strohl |
| Drilling Method Direct Push | Drill Bit Size/Type 2" x 5' macrocore | Total Depth of Borehole 5 feet bgs |
| Drill Rig Type Geoprobe 7822DT | Drilling Contractor MB Drilling | Elevation NA |
| Groundwater Level 1.5 feet bgs | Sampling Method(s) Grab | Temporary Well NA |
| Borehole Backfill Soil Cuttings | Location Tank Group 07A | |

| Depth (feet) | Recovery (inches) | Sample Type | USCS Symbol | Graphic Log | MATERIAL DESCRIPTION | PID Reading, ppm | REMARKS AND OTHER TESTS |
|--------------|-------------------|-------------|-------------|---|--|------------------|---|
| 0 | | | GW |  | GRAVEL, black, loose, poorly graded, moist, no odor | 0 | Sample GPR251-04-SS01 from 1.0-1.5' bgs |
| 1 | | | CL |  | SILTY CLAY, tan brown, firm, medium plasticity, low dilatancy, moist, black mottling | 0 | |
| 1.5 | | | SM |  | SANDY SILT, tan brown, poorly graded, dense, wet | 0 | |
| 2 | | | | | | 0 | |
| 3 | | | | | | 0 | |
| 4 | | | | | | 0 | |
| 5 | | | | | End of boring | 0 | |
| 6 | | | | | | 0 | |
| 8 | | | | | | 0 | |
| 10 | | | | | | 0 | |
| 12 | | | | | | 0 | |
| 14 | | | | | | 0 | |
| 16 | | | | | | 0 | |
| 18 | | | | | | 0 | |
| 20 | | | | | | 0 | |

Project: **Former Philadelphia Refinery**
 Project Location: **3144 W. Passyunk Avenue**
 Project Number: **P044.001.002**

Log of Boring GPR250-01
Sheet 1 of 1

| | | |
|---|---|--|
| Date(s) Drilled 12/15/23 | Logged By K. O'Rourke | Checked By A. Strohl |
| Drilling Method Direct Push | Drill Bit Size/Type 2" x 5' macrocore | Total Depth of Borehole 5 feet bgs |
| Drill Rig Type Geoprobe 7822DT | Drilling Contractor MB Drilling | Elevation NA |
| Groundwater Level 3.0 feet bgs | Sampling Method(s) Grab | Temporary Well NA |
| Borehole Backfill Soil Cuttings | Location Tank Group 07A | |

| Depth (feet) | Recovery (inches) | Sample Type | USCS Symbol | Graphic Log | MATERIAL DESCRIPTION | PID Reading, ppm | REMARKS AND OTHER TESTS |
|--------------|-------------------|-------------|-------------|-------------|---|------------------|--|
| 0 | | | GW | | GRAVEL AND SAND, well graded, dry, some brick-like material, loose | 0 | Sample GPR250-01-0.5-1.0 from 0.5-1.0' bgs |
| 0.2 | | | | | 1/2" layer of white rock, possibly quartz | 0 | |
| 2 | 32/60 | | SM | | SANDY SILT AND GRAVEL, tan brown, dense, medium plasticity, low dilatancy, moist, well graded | 0 | |
| 4 | | | SW | | GRAVELLY SAND, tan brown, loose, wet, well graded | 0 | Sample GPR250-01-SS01 from 2.5-3.0' bgs |
| 5 | | | | | End of boring | 0 | |
| 6 | | | | | | | |
| 8 | | | | | | | |
| 10 | | | | | | | |
| 12 | | | | | | | |
| 14 | | | | | | | |
| 16 | | | | | | | |
| 18 | | | | | | | |
| 20 | | | | | | | |

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Project: **Former Philadelphia Refinery**
 Project Location: **3144 W. Passyunk Avenue**
 Project Number: **P044.001.002**

Log of Boring GPR250-02
Sheet 1 of 1

| | | |
|---|---|--|
| Date(s) Drilled 12/15/23 | Logged By K. O'Rourke | Checked By A. Strohl |
| Drilling Method Hand Auger | Drill Bit Size/Type 2" x 5' macrocore | Total Depth of Borehole 3 feet bgs |
| Drill Rig Type NA | Drilling Contractor MB Drilling | Elevation NA |
| Groundwater Level 2.0 feet bgs | Sampling Method(s) Grab | Temporary Well NA |
| Borehole Backfill Soil Cuttings | Location Tank Group 07A | |

| Depth (feet) | Recovery (inches) | Sample Type | USCS Symbol | Graphic Log | MATERIAL DESCRIPTION | PID Reading, ppm | REMARKS AND OTHER TESTS |
|--------------|-------------------|-------------|-------------|-------------|---|------------------|---|
| 0 | | | SM | | SILTY SAND, tan brown, some gravel, dense, moist, well graded | 0 | Sample GPR250-02-SS01 from 1.5-2.0' bgs |
| 1 | 36/36 | | | | | 0 | |
| 2 | | | | | | 0 | |
| 3 | | | | | | 0 | |
| 4 | | | | | End of boring due to saturation in borehole | 0 | |
| 5 | | | | | | 0 | |
| 6 | | | | | | | |
| 8 | | | | | | | |
| 10 | | | | | | | |
| 12 | | | | | | | |
| 14 | | | | | | | |
| 16 | | | | | | | |
| 18 | | | | | | | |
| 20 | | | | | | | |

Project: **Former Philadelphia Refinery**
 Project Location: **3144 W. Passyunk Avenue**
 Project Number: **P044.001.002**

Log of Boring GPR250-03
Sheet 1 of 1

| | | |
|---|---|--|
| Date(s) Drilled 12/15/23 | Logged By K. O'Rourke | Checked By A. Strohl |
| Drilling Method Direct Push | Drill Bit Size/Type 2" x 5' macrocore | Total Depth of Borehole 5 feet bgs |
| Drill Rig Type Geoprobe 7822DT | Drilling Contractor MB Drilling | Elevation NA |
| Groundwater Level 2.5 feet bgs | Sampling Method(s) Grab | Temporary Well NA |
| Borehole Backfill Soil Cuttings | Location Tank Group 07A | |

| Depth (feet) | Recovery (inches) | Sample Type | USCS Symbol | Graphic Log | MATERIAL DESCRIPTION | PID Reading, ppm | REMARKS AND OTHER TESTS |
|--------------|-------------------|-------------|-------------|-------------|--|------------------|---|
| 0 | | | GW | | Gravel, black and red, dry, loose, well graded | 0 | Sample GPR250-03-SS01 and GPR250-03-SS01D from 2.0-2.5' bgs |
| | | | CL | | CLAY AND GRAVEL, tan brown, medium plasticity, low dilatancy, moist, firm, no odor ↓ gravel content decreases | 0 | |
| 2 | 31/60 | | | | | 0 | |
| | | | MH | | SANDY SILT, tan brown, medium plasticity, low dilatancy, firm, wet | 0 | |
| | | | CL | | CLAY, tan brown, medium plasticity, low dilatancy, wet, firm, some mottling | 0 | |
| 4 | | | | | | 0 | |
| 6 | | | | | End of boring | 0 | |
| 8 | | | | | | 0 | |
| 10 | | | | | | 0 | |
| 12 | | | | | | 0 | |
| 14 | | | | | | 0 | |
| 16 | | | | | | 0 | |
| 18 | | | | | | 0 | |
| 20 | | | | | | 0 | |

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Project: **Former Philadelphia Refinery**
 Project Location: **3144 W. Passyunk Avenue**
 Project Number: **P044.001.002**

Key to Log of Boring Sheet 1 of 1

| Depth (feet) | Recovery (inches) | Sample Type | USCS Symbol | Graphic Log | MATERIAL DESCRIPTION | PID Reading, ppm | REMARKS AND OTHER TESTS |
|--------------|-------------------|-------------|-------------|-------------|----------------------|------------------|-------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |








COLUMN DESCRIPTIONS

- | | |
|--|---|
| <p>1 Depth (feet): Depth in feet below the ground surface.</p> <p>2 Recovery (inches): Percent Recovery</p> <p>3 Sample Type: Type of soil sample collected at the depth interval shown.</p> <p>4 USCS Symbol: USCS symbol of the subsurface material.</p> | <p>5 Graphic Log: Graphic depiction of the subsurface material encountered.</p> <p>6 MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.</p> <p>7 PID Reading, ppm: The reading from a photo-ionization detector, in parts per million.</p> <p>8 REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel.</p> |
|--|---|

FIELD AND LABORATORY TEST ABBREVIATIONS

| | |
|---|--|
| <p>CHEM: Chemical tests to assess corrosivity</p> <p>COMP: Compaction test</p> <p>CONS: One-dimensional consolidation test</p> <p>LL: Liquid Limit, percent</p> | <p>PI: Plasticity Index, percent</p> <p>SA: Sieve analysis (percent passing No. 200 Sieve)</p> <p>UC: Unconfined compressive strength test, Qu, in ksf</p> <p>WA: Wash sieve (percent passing No. 200 Sieve)</p> |
|---|--|






MATERIAL GRAPHIC SYMBOLS

- | | |
|--|--|
| <p> Lean CLAY, CLAY w/SAND, SANDY CLAY (CL)</p> <p> Silty GRAVEL (GM)</p> <p> Poorly graded GRAVEL (GP)</p> | <p> Well graded GRAVEL (GW)</p> <p> SILT, SILT w/SAND, SANDY SILT (MH)</p> <p> Silty SAND (SM)</p> <p> Well graded SAND (SW)</p> |
|--|--|

TYPICAL SAMPLER GRAPHIC SYMBOLS

-  Grab Sample

OTHER GRAPHIC SYMBOLS

-  Water level (at time of drilling, ATD)
-  Water level (after waiting, AW)
-  Minor change in material properties within a stratum
-  - - Inferred/gradational contact between strata
-  - ? - Queried contact between strata

GENERAL NOTES

- 1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
- 2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

PIEZOMETER COMPLETION RECORD

DRILLING INFORMATION

DRILLING BEGAN:
 DATE 7/10/2023 TIME 12:30
 WELL INSTALLATION BEGAN:
 DATE 7/10/2023 TIME 12:30
 WELL COMPLETION FINISHED:
 DATE 7/10/2023 TIME 14:04
 DRILLING CO. _____
 DRILLER Terraphase Engineering Inc.
 LICENSE _____
 DRILL RIG _____
 DRILLING METHOD:
 HOLLOW STEM AUGER
 SONIC
 OTHER: AMS™ Stainless Steel Piezometer Groundwater Sampling Kit
 DIAMETER OF AUGERS:
 ID NA OD NA

SURFACE COMPLETION

FLUSH MOUNT
 ABOVE GROUND W/BUMPER POST
 CONCRETE ASPHALT

PIEZOMETER

MONITORING WELL NO. TG07A-PZ-01
 PROJECT PESRM
 SITE 3144 W. Passyunk Ave, Philadelphia
 BOREHOLE NO. N/A
 WELL PERMIT NO. N/A
 GROUND SURFACE TO 2.30 ft bgs
 BOTTOM OF WELL _____

ANNULAR SEAL

AMOUNT CALCULATED _____
 AMOUNT USED NA
 GROUT FORMULA
 PORTLAND CEMENT _____
 BENTONITE _____
 WATER _____
 PREPARED MIX
 PRODUCT _____
 MFG. BY _____
 METHOD INSTALLED
 POURED TREMIE

BENTONITE SEAL

AMOUNT CALCULATED _____
 AMOUNT USED 2 lbs.
 PELLETS, SIZE 1/4 - inch, hydrated
 CHIPS, SIZE _____

 PRODUCT Pel-Plug
 MFG. BY PDSCo, Inc.
 METHOD INSTALLED
 POURED TREMIE
 AMOUNT OF WATER USED 8 ounces

FILTER PACK

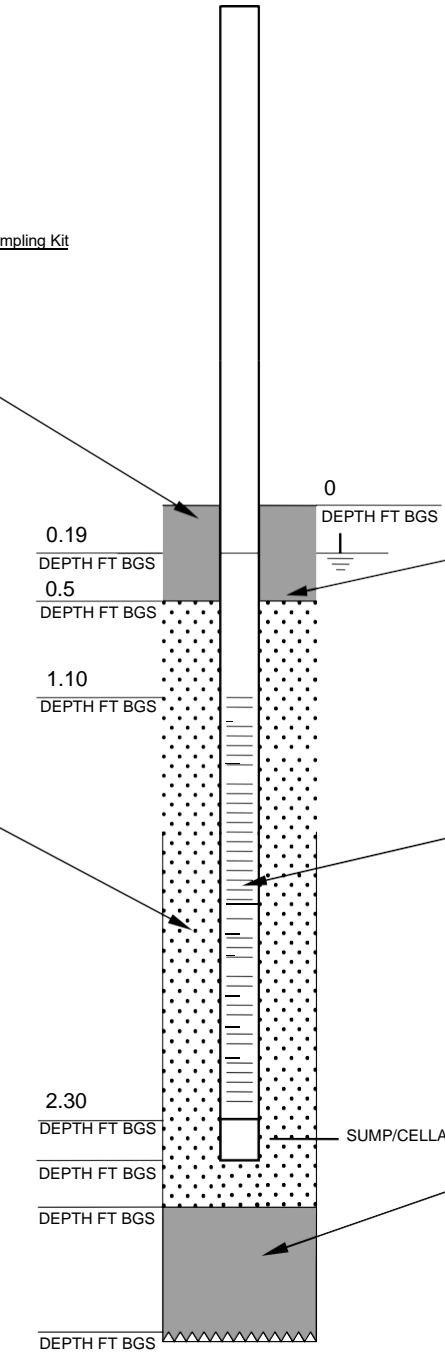
AMOUNT CALCULATED _____
 AMOUNT USED NA
 SAND, SIZE _____
 FORMATION COLLAPSE:
 FROM _____ TO _____
 PRODUCT _____
 MFG. BY _____
 METHOD INSTALLED:
 POURED TREMIE

SURVEY INFORMATION

TOC ELEVATION 9.55 ft AMSL
 GROUND ELEVATION 6.6 ft. AMSL
 NORTHING COORD. 217703.8353
 EASTING COORD. 2683074.7401
 DATE SURVEYED June 12, 2023
 SURVEY CO. Vargo Associates
 TOC MEASURING POINT: _____

CENTRALIZERS USED?

YES NO
 CENTRALIZER DEPTHS: _____



CASING

SCHEDULE 40 PVC
 Stainless Steel Piezometer Extension w/ Coupler
 PRODUCT _____
 MFG. BY: AMS™
 CASING DIAMETER:
 ID 0.875 - inch OD 1.25 - inch
 LENGTH OF CASING 3 ft.

WELL SCREEN

SCHEDULE 40 PVC
 Stainless Steel Piezometer w/ Coupler
 PRODUCT _____
 MFG. BY: AMS™
 CASING DIAMETER:
 ID 0.875 - inch OD 1.25 - inch
 SLOT SIZE #50 mesh filter screen
 LENGTH OF SCREEN 1.2 ft.
 LENGTH OF SUMP NA

BOREHOLE BACKFILL

AMOUNT CALCULATED _____
 AMOUNT USED NA
 BENTONITE CHIPS, SIZE _____
 BENTONITE PELLETS, SIZE _____
 SLURRY _____
 FORMATION COLLAPSE
 FROM _____ TO _____
 PRODUCT _____
 MFG. BY _____
 METHOD INSTALLED:
 POURED TREMIE

PIEZOMETER COMPLETION RECORD

DRILLING INFORMATION

DRILLING BEGAN:
 DATE 7/10/2023 TIME 10:30
 WELL INSTALLATION BEGAN:
 DATE 7/10/2023 TIME 10:30
 WELL COMPLETION FINISHED:
 DATE 7/10/2023 TIME 12:07
 DRILLING CO. _____
 DRILLER Terraphase Engineering Inc.
 LICENSE _____
 DRILL RIG _____
 DRILLING METHOD:
 HOLLOW STEM AUGER
 SONIC
 OTHER: AMS™ Stainless Steel Piezometer Groundwater Sampling Kit
 DIAMETER OF AUGERS:
 ID NA OD NA

BENTONITE SEAL

AMOUNT CALCULATED _____
 AMOUNT USED 2 lbs.
 PELLETS, SIZE 1/4 - inch, hydrated
 CHIPS, SIZE _____

 PRODUCT Pel-Plug
 MFG. BY PDSCo, Inc.
 METHOD INSTALLED
 POURED TREMIE
 AMOUNT OF WATER USED 8 ounces

FILTER PACK

AMOUNT CALCULATED _____
 AMOUNT USED NA
 SAND, SIZE _____
 FORMATION COLLAPSE:
 FROM _____ TO _____
 PRODUCT _____
 MFG. BY _____
 METHOD INSTALLED:
 POURED TREMIE

SURVEY INFORMATION

TOC ELEVATION 9.52 ft AMSL
 GROUND ELEVATION 6.8 ft. AMSL
 NORTHING COORD. 217464.675
 EASTING COORD. 2682728.9078
 DATE SURVEYED June 12, 2023
 SURVEY CO. Vargo Associates
 TOC MEASURING POINT: _____

CENTRALIZERS USED?

YES NO
 CENTRALIZER DEPTHS: _____

SURFACE COMPLETION

FLUSH MOUNT
 ABOVE GROUND W/BUMPER POST
 CONCRETE ASPHALT

PIEZOMETER

MONITORING WELL NO. TG07A-PZ-02
 PROJECT PESRM
 SITE 3144 W. Passyunk Ave, Philadelphia
 BOREHOLE NO. N/A
 WELL PERMIT NO. N/A
 GROUND SURFACE TO 2.5 ft bgs
 BOTTOM OF WELL _____

ANNULAR SEAL

AMOUNT CALCULATED _____
 AMOUNT USED NA
 GROUT FORMULA
 PORTLAND CEMENT _____
 BENTONITE _____
 WATER _____
 PREPARED MIX
 PRODUCT _____
 MFG. BY _____
 METHOD INSTALLED
 POURED TREMIE

CASING

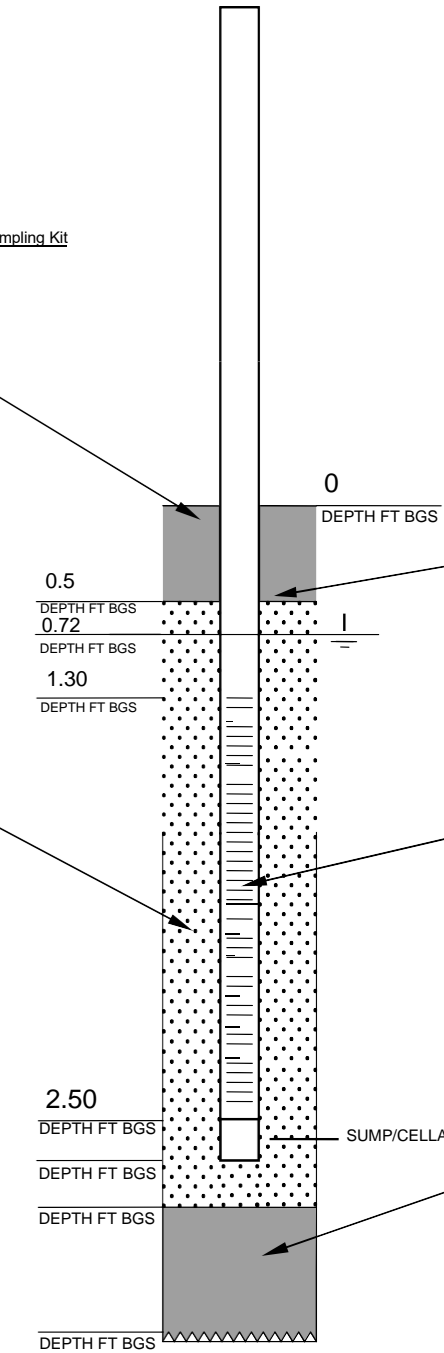
SCHEDULE 40 PVC
 Stainless Steel Piezometer Extension w/ Coupler
 PRODUCT _____
 MFG BY: AMS™
 CASING DIAMETER:
 ID 0.875 - inch OD 1.25 - inch
 LENGTH OF CASING 3 ft.

WELL SCREEN

SCHEDULE 40 PVC
 Stainless Steel Piezometer w/ Coupler
 PRODUCT _____
 MFG. BY: AMS™
 CASING DIAMETER:
 ID 0.875 - inch OD 1.25 - inch
 SLOT SIZE #50 mesh filter screen
 LENGTH OF SCREEN 1.2 ft.
 LENGTH OF SUMP NA

BOREHOLE BACKFILL

AMOUNT CALCULATED _____
 AMOUNT USED NA
 BENTONITE CHIPS, SIZE _____
 BENTONITE PELLETS, SIZE _____
 SLURRY _____
 FORMATION COLLAPSE
 FROM _____ TO _____
 PRODUCT _____
 MFG. BY _____
 METHOD INSTALLED:
 POURED TREMIE



Appendix E

Laboratory Data Package





ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L2374524 |
| Client: | Terraphase Engineering Inc. 1100 Canal Pointe Boulevard Suite 100 Princeton, NJ 08540 |
| ATTN: | Nick Scala |
| Phone: | (609) 236-8171 |
| Project Name: | FORMER PHILADELPHIA REFINERY |
| Project Number: | P044.001.002 |
| Report Date: | 12/27/23 |

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|----------------------------|--------------------|---------------|----------------------------|---------------------------------|---------------------|
| L2374524-01 | TG07A-PZ01-231215 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 08:27 | 12/15/23 |
| L2374524-02 | TG07A-PZ02-231215 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 09:57 | 12/15/23 |
| L2374524-03 | TG07A-SW02-231215 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 10:46 | 12/15/23 |
| L2374524-04 | TG07A-SW01-231215 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 16:39 | 12/15/23 |
| L2374524-05 | FB-231215-2 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 18:45 | 12/15/23 |
| L2374524-06 | TB-231215-2 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 19:00 | 12/15/23 |
| L2374524-07 | TG07A-PZ01-231215D | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 08:27 | 12/15/23 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Case Narrative (continued)

Report Revision

December 27, 2023: The Volatile Organics analyte list has been amended on L2374524-01 through -07.

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2374524-07: A sample identified as "TG07A-PZ01-231215D" was received, but not listed on the Chain of Custody. At the client's request, this sample was analyzed.

Microextractables

L2374524-01, -02, -03, -04, -05, -06, and -07: The sample was in improper preservative. The 8011 compound was analyzed from an HCl preserved vial.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Caitlin Walukevich

Title: Technical Director/Representative

Date: 12/27/23

ORGANICS

VOLATILES

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-01
 Client ID: TG07A-PZ01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 19:04
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-01
 Client ID: TG07A-PZ01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 21:58
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 100 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 107 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-02
 Client ID: TG07A-PZ02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 09:57
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 19:12
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-02
 Client ID: TG07A-PZ02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 09:57
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 22:24
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|------|------|-----------------|
| Volatiles Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 102 | | 70-130 |
| Toluene-d8 | 109 | | 70-130 |
| 4-Bromofluorobenzene | 104 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-03
 Client ID: TG07A-SW02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 10:46
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 19:20
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-03
 Client ID: TG07A-SW02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 10:46
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 22:50
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | 0.20 | J | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | 0.19 | J | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 102 | | 70-130 |
| Toluene-d8 | 107 | | 70-130 |
| 4-Bromofluorobenzene | 108 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-04
 Client ID: TG07A-SW01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:39
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 19:28
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-04
 Client ID: TG07A-SW01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:39
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 23:16
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | 0.19 | J | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | 0.19 | J | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 103 | | 70-130 |
| Toluene-d8 | 110 | | 70-130 |
| 4-Bromofluorobenzene | 107 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-05
 Client ID: FB-231215-2
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:45
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 18:40
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-05
 Client ID: FB-231215-2
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:45
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 23:42
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 104 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-06
 Client ID: TB-231215-2
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 19:00
 Date Received: 12/15/23
 Field Prep: None

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 18:48
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-06
 Client ID: TB-231215-2
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 19:00
 Date Received: 12/15/23
 Field Prep: None

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/22/23 00:08
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 103 | | 70-130 |
| Toluene-d8 | 109 | | 70-130 |
| 4-Bromofluorobenzene | 107 | | 70-130 |
| Dibromofluoromethane | 100 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-07
 Client ID: TG07A-PZ01-231215D
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/21/23 18:56
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-07
 Client ID: TG07A-PZ01-231215D
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/22/23 00:33
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 105 | | 70-130 |
| Toluene-d8 | 107 | | 70-130 |
| 4-Bromofluorobenzene | 105 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8011
Analytical Date: 12/21/23 17:35
Analyst: JKH

Extraction Method: EPA 8011
Extraction Date: 12/21/23 14:22

| Parameter | Result | Qualifier | Units | RL | MDL | |
|---|--------|-----------|-------|-------|-------|---|
| Microextractables by GC - Westborough Lab for sample(s): 01-07 Batch: WG1866933-1 | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/21/23 21:06
Analyst: MAG

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|------|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1867314-5 | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 |
| Benzene | ND | | ug/l | 0.50 | 0.16 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 |
| Toluene | ND | | ug/l | 0.75 | 0.20 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 101 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 109 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374524

Project Number: P044.001.002

Report Date: 12/27/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|--|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|---------------|
| Microextractables by GC - Westborough Lab Associated sample(s): 01-07 Batch: WG1866933-2 | | | | | | | | | |
| 1,2-Dibromoethane | 99 | | - | | 80-120 | - | | 20 | A |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1867314-3 WG1867314-4 | | | | | | | | |
| Methyl tert butyl ether | 89 | | 88 | | 63-130 | 1 | | 20 |
| Benzene | 98 | | 97 | | 70-130 | 1 | | 20 |
| 1,2-Dichloroethane | 98 | | 96 | | 70-130 | 2 | | 20 |
| Toluene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Ethylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |
| p/m-Xylene | 105 | | 105 | | 70-130 | 0 | | 20 |
| o-Xylene | 105 | | 100 | | 70-130 | 5 | | 20 |
| Isopropylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |
| 1,3,5-Trimethylbenzene | 110 | | 100 | | 64-130 | 10 | | 20 |
| 1,2,4-Trimethylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|-----------------------|------------------|------|-------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 101 | | 99 | | 70-130 |
| Toluene-d8 | 108 | | 107 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 106 | | 70-130 |
| Dibromofluoromethane | 99 | | 100 | | 70-130 |



SEMIVOLATILES

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-01
 Client ID: TG07A-PZ01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/22/23 10:27
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 78 | | 23-120 |
| 2-Fluorobiphenyl | 75 | | 15-120 |
| 4-Terphenyl-d14 | 70 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-02
 Client ID: TG07A-PZ02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 09:57
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/21/23 17:53
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 66 | | 23-120 |
| 2-Fluorobiphenyl | 64 | | 15-120 |
| 4-Terphenyl-d14 | 62 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-03
 Client ID: TG07A-SW02-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 10:46
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/21/23 18:10
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | 0.03 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | 0.02 | J | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 51 | | 23-120 |
| 2-Fluorobiphenyl | 50 | | 15-120 |
| 4-Terphenyl-d14 | 48 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-04
 Client ID: TG07A-SW01-231215
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:39
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/21/23 18:26
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | 0.02 | J | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | 0.01 | J | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 65 | | 23-120 |
| 2-Fluorobiphenyl | 63 | | 15-120 |
| 4-Terphenyl-d14 | 56 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-05
 Client ID: FB-231215-2
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:45
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/21/23 18:43
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 73 | | 23-120 |
| 2-Fluorobiphenyl | 69 | | 15-120 |
| 4-Terphenyl-d14 | 64 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-07
 Client ID: TG07A-PZ01-231215D
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 08:27
 Date Received: 12/15/23
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/22/23 10:44
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 71 | | 23-120 |
| 2-Fluorobiphenyl | 70 | | 15-120 |
| 4-Terphenyl-d14 | 70 | | 41-149 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270E-SIM
Analytical Date: 12/21/23 17:36
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|------|------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05,07 Batch: WG1866777-1 | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|------------------|-----------|-----------|------------------------|
| Nitrobenzene-d5 | 80 | | 23-120 |
| 2-Fluorobiphenyl | 75 | | 15-120 |
| 4-Terphenyl-d14 | 71 | | 41-149 |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05,07 Batch: WG1866777-2 WG1866777-3 | | | | | | | | |
| Naphthalene | 58 | | 75 | | 40-140 | 26 | | 40 |
| Fluorene | 59 | | 76 | | 40-140 | 25 | | 40 |
| Phenanthrene | 58 | | 74 | | 40-140 | 24 | | 40 |
| Anthracene | 59 | | 76 | | 40-140 | 25 | | 40 |
| Pyrene | 55 | | 68 | | 26-127 | 21 | | 40 |
| Benzo(a)anthracene | 66 | | 86 | | 40-140 | 26 | | 40 |
| Chrysene | 61 | | 78 | | 40-140 | 24 | | 40 |
| Benzo(b)fluoranthene | 59 | | 74 | | 40-140 | 23 | | 40 |
| Benzo(a)pyrene | 57 | | 72 | | 40-140 | 23 | | 40 |
| Benzo(ghi)perylene | 66 | | 83 | | 40-140 | 23 | | 40 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|------------------|------------------|------|-------------------|------|------------------------|
| Nitrobenzene-d5 | 67 | | 84 | | 23-120 |
| 2-Fluorobiphenyl | 61 | | 75 | | 15-120 |
| 4-Terphenyl-d14 | 55 | | 67 | | 41-149 |



Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Project Number: P044.001.002

Lab Number: L2374524

Report Date: 12/27/23

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| Semivolatiles by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05,07 QC Batch ID: WG1866777-4 QC Sample: L2374524-01 Client ID: TG07A-PZ01-231215 | | | | | | |
| Naphthalene | ND | 0.46 | ug/l | NC | | 40 |
| Fluorene | ND | 0.02J | ug/l | NC | | 40 |
| Phenanthrene | ND | 0.03J | ug/l | NC | | 40 |
| Anthracene | ND | ND | ug/l | NC | | 40 |
| Pyrene | ND | ND | ug/l | NC | | 40 |
| Benzo(a)anthracene | ND | ND | ug/l | NC | | 40 |
| Chrysene | ND | ND | ug/l | NC | | 40 |
| Benzo(b)fluoranthene | ND | ND | ug/l | NC | | 40 |
| Benzo(a)pyrene | ND | ND | ug/l | NC | | 40 |
| Benzo(ghi)perylene | ND | ND | ug/l | NC | | 40 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|------------------|-----------|-----------|-----------|-----------|---------------------|
| Nitrobenzene-d5 | 78 | | 60 | | 23-120 |
| 2-Fluorobiphenyl | 75 | | 59 | | 15-120 |
| 4-Terphenyl-d14 | 70 | | 54 | | 41-149 |

METALS

Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374524

Project Number: P044.001.002

Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-01

Date Collected: 12/15/23 08:27

Client ID: TG07A-PZ01-231215

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | 1.609 | | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 17:18 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY**Lab Number:** L2374524**Project Number:** P044.001.002**Report Date:** 12/27/23**SAMPLE RESULTS**

Lab ID: L2374524-02

Date Collected: 12/15/23 09:57

Client ID: TG07A-PZ02-231215

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | ND | | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 18:06 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374524

Project Number: P044.001.002

Report Date: 12/27/23

SAMPLE RESULTS

Lab ID: L2374524-03

Date Collected: 12/15/23 10:46

Client ID: TG07A-SW02-231215

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | 2.074 | | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 18:11 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY**Lab Number:** L2374524**Project Number:** P044.001.002**Report Date:** 12/27/23**SAMPLE RESULTS**

Lab ID: L2374524-04

Date Collected: 12/15/23 16:39

Client ID: TG07A-SW01-231215

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | 0.8006 | J | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 18:16 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY**Lab Number:** L2374524**Project Number:** P044.001.002**Report Date:** 12/27/23**SAMPLE RESULTS**

Lab ID: L2374524-05

Date Collected: 12/15/23 18:45

Client ID: FB-231215-2

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | ND | | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 18:20 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY**Lab Number:** L2374524**Project Number:** P044.001.002**Report Date:** 12/27/23**SAMPLE RESULTS**

Lab ID: L2374524-07

Date Collected: 12/15/23 08:27

Client ID: TG07A-PZ01-231215D

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Dissolved | 0.4309 | J | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 08:33 | 12/21/23 14:07 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

Method Blank Analysis Batch Quality Control

| Parameter | Result Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|------------------|-------|-------|--------|-----------------|----------------|----------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1865448-1 | | | | | | | | | |
| Lead, Dissolved | ND | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 09:34 | 12/21/23 16:55 | 1,6020B | EJF |

Prep Information

Digestion Method: EPA 3005A

| Parameter | Result Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|------------------|-------|-------|--------|-----------------|----------------|----------------|-------------------|---------|
| Dissolved Metals - Mansfield Lab for sample(s): 07 Batch: WG1866342-1 | | | | | | | | | |
| Lead, Dissolved | ND | ug/l | 1.000 | 0.3430 | 1 | 12/21/23 08:33 | 12/21/23 13:44 | 1,6020B | EJF |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis**Batch Quality Control****Project Name:** FORMER PHILADELPHIA REFINERY**Lab Number:** L2374524**Project Number:** P044.001.002**Report Date:** 12/27/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-------------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1865448-2 | | | | | | | | |
| Lead, Dissolved | 104 | | - | | 80-120 | - | | |
| Dissolved Metals - Mansfield Lab Associated sample(s): 07 Batch: WG1866342-2 | | | | | | | | |
| Lead, Dissolved | 106 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
Report Date: 12/27/23

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | MSD Qual | MSD Found | MSD %Recovery | MSD Qual | Recovery Limits | RPD | RPD Qual | RPD Limits |
|---|---------------|----------|----------|--------------|----------|-----------|---------------|----------|-----------------|-----|----------|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1865448-3 QC Sample: L2374524-01 Client ID: TG07A-PZ01-231215 | | | | | | | | | | | | |
| Lead, Dissolved | 1.609 | 530 | 564.8 | 106 | - | - | - | - | 75-125 | - | - | 20 |
| Dissolved Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG1866342-3 QC Sample: L2374524-07 Client ID: TG07A-PZ01-231215D | | | | | | | | | | | | |
| Lead, Dissolved | 0.4309J | 530 | 541.2 | 102 | - | - | - | - | 75-125 | - | - | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Project Number: P044.001.002

Lab Number: L2374524

Report Date: 12/27/23

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1865448-4 QC Sample: L2374524-01 Client ID: TG07A-PZ01-231215 | | | | | | |
| Lead, Dissolved | 1.609 | 0.4029J | ug/l | NC | | 20 |
| Dissolved Metals - Mansfield Lab Associated sample(s): 07 QC Batch ID: WG1866342-4 QC Sample: L2374524-07 Client ID: TG07A-PZ01-231215D | | | | | | |
| Lead, Dissolved | 0.4309J | 0.4608J | ug/l | NC | | 20 |

Project Name: FORMER PHILADELPHIA REFINERY**Lab Number:** L2374524**Project Number:** P044.001.002**Report Date:** 12/27/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

| Cooler | Custody Seal |
|---------------|---------------------|
| A | Absent |
| B | Absent |

Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|------------------------------|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2374524-01A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-01A1 | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-01B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-01B1 | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-01C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-01C1 | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-01D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |
| L2374524-01D1 | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-01E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-01E1 | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-01F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-01F1 | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | ARCHIVE() |
| L2374524-02A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-02B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-02C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-02D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |
| L2374524-02E | Amber 250ml unpreserved | A | 9 | 9 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-02F | Amber 250ml unpreserved | A | 9 | 9 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-03A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-03B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-03C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-03D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |

Project Name: FORMER PHILADELPHIA REFINERY**Lab Number:** L2374524**Project Number:** P044.001.002**Report Date:** 12/27/23**Container Information**

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|------------------------------|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2374524-03E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-03F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-04A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-04B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-04C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-04D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |
| L2374524-04E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-04F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-05A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-05B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-05C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-05D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |
| L2374524-05E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-05F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-06A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-06B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-07A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-07B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374524-07C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14) |
| L2374524-07D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020S-PPB(180) |
| L2374524-07E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374524-07F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374524
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GLOSSARY

Acronyms

| | |
|----------|--|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| NR | - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

Report Format: DU Report with 'J' Qualifiers



Project Name: FORMER PHILADELPHIA REFINERY
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Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: FORMER PHILADELPHIA REFINERY
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Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625.1: alpha-Terpineol

EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270E: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

PADEP Short List 1-5:

Benzene
Cumene
1,2 – Dibromoethane
1,2 – Dichloroethane
Ethyl Benzene
Toluene
1,2,4 – Trimethylbenzene
1,3,5 – Trimethylbenzene
Methyl tert-butyl ether
Xylenes (total)
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Chrysene
Fluorene
Naphthalene
Phenanthrene
Pyrene
Lead



ANALYTICAL REPORT

| | |
|-----------------|--|
| Lab Number: | L2374526 |
| Client: | Terraphase Engineering Inc. 1100 Canal Pointe Boulevard Suite 100 Princeton, NJ 08540 |
| ATTN: | Nick Scala |
| Phone: | (609) 236-8171 |
| Project Name: | FORMER PHILADELPHIA REFINERY |
| Project Number: | P044.001.002 |
| Report Date: | 12/26/23 |

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|------------------------|-------------------|---------------|------------------------|-----------------------------|---------------------|
| L2374526-01 | GPR251-01-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 14:12 | 12/15/23 |
| L2374526-02 | GPR250-02-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 16:26 | 12/15/23 |
| L2374526-03 | GPR251-02-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 16:08 | 12/15/23 |
| L2374526-04 | GPR251-03-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 15:45 | 12/15/23 |
| L2374526-05 | GPR251-04-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 15:33 | 12/15/23 |
| L2374526-06 | GPR250-03-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 15:17 | 12/15/23 |
| L2374526-07 | GPR250-03-SS01D | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 15:17 | 12/15/23 |
| L2374526-08 | GPR250-01-0.5-1.0 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 14:54 | 12/15/23 |
| L2374526-09 | GPR250-01-SS01 | SOIL | 3144 W. PASSYUNK AVE. | 12/15/23 14:38 | 12/15/23 |
| L2374526-10 | FB-231215-1 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 18:37 | 12/15/23 |
| L2374526-11 | TB-231215-1 | WATER | 3144 W. PASSYUNK AVE. | 12/15/23 18:56 | 12/15/23 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Case Narrative (continued)

Report Submission

December 26, 2023: This final report includes the results of all requested analyses.

December 22, 2023: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Microextractables

L2374526-10, -11, and WG1868000-3: The sample was in improper preservative. The 8011 compound was analyzed from an HCl preserved vial.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Kelly O'Neill

Title: Technical Director/Representative

Date: 12/26/23

ORGANICS

VOLATILES

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-01
 Client ID: GPR251-01-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 14:12
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 19:09
 Analyst: JIC
 Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0017 | 0.00017 | 1 |
| Benzene | ND | | mg/kg | 0.00042 | 0.00014 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00085 | 0.00022 | 1 |
| Toluene | ND | | mg/kg | 0.00085 | 0.00046 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00042 | 0.00025 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00085 | 0.00012 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0017 | 0.00048 | 1 |
| o-Xylene | ND | | mg/kg | 0.00085 | 0.00025 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00085 | 0.00025 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00085 | 0.00009 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0017 | 0.00016 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0017 | 0.00028 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 111 | | 70-130 |
| Toluene-d8 | 96 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 70-130 |
| Dibromofluoromethane | 107 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-02
 Client ID: GPR250-02-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:26
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 17:53
 Analyst: JIC
 Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0018 | 0.00018 | 1 |
| Benzene | ND | | mg/kg | 0.00046 | 0.00015 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00091 | 0.00023 | 1 |
| Toluene | ND | | mg/kg | 0.00091 | 0.00050 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00046 | 0.00027 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00091 | 0.00013 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0018 | 0.00051 | 1 |
| o-Xylene | ND | | mg/kg | 0.00091 | 0.00026 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00091 | 0.00026 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00091 | 0.00010 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00018 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00030 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 109 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-03
 Client ID: GPR251-02-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:08
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 18:43
 Analyst: JIC
 Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0018 | 0.00018 | 1 |
| Benzene | ND | | mg/kg | 0.00045 | 0.00015 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00091 | 0.00023 | 1 |
| Toluene | ND | | mg/kg | 0.00091 | 0.00049 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00045 | 0.00026 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00091 | 0.00013 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0018 | 0.00051 | 1 |
| o-Xylene | ND | | mg/kg | 0.00091 | 0.00026 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00091 | 0.00026 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00091 | 0.00009 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00018 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00030 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 115 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 70-130 |
| Dibromofluoromethane | 108 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-04
 Client ID: GPR251-03-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:45
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 18:18
 Analyst: JIC
 Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0019 | 0.00019 | 1 |
| Benzene | ND | | mg/kg | 0.00047 | 0.00016 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00094 | 0.00024 | 1 |
| Toluene | ND | | mg/kg | 0.00094 | 0.00051 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00047 | 0.00027 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00094 | 0.00013 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0019 | 0.00052 | 1 |
| o-Xylene | ND | | mg/kg | 0.00094 | 0.00027 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00094 | 0.00027 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00094 | 0.00010 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0019 | 0.00018 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0019 | 0.00031 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 112 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 94 | | 70-130 |
| Dibromofluoromethane | 107 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-05
 Client ID: GPR251-04-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:33
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/21/23 10:48
 Analyst: JIC
 Percent Solids: 75%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0022 | 0.00022 | 1 |
| Benzene | ND | | mg/kg | 0.00054 | 0.00018 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.0011 | 0.00028 | 1 |
| Toluene | ND | | mg/kg | 0.0011 | 0.00058 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00054 | 0.00032 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.0011 | 0.00015 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0022 | 0.00060 | 1 |
| o-Xylene | ND | | mg/kg | 0.0011 | 0.00031 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.0011 | 0.00031 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.0011 | 0.00012 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0022 | 0.00021 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0022 | 0.00036 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 110 | | 70-130 |
| Toluene-d8 | 97 | | 70-130 |
| 4-Bromofluorobenzene | 94 | | 70-130 |
| Dibromofluoromethane | 107 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-06
 Client ID: GPR250-03-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 15:06
 Analyst: JIC
 Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0018 | 0.00019 | 1 |
| Benzene | ND | | mg/kg | 0.00046 | 0.00015 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00093 | 0.00024 | 1 |
| Toluene | ND | | mg/kg | 0.00093 | 0.00050 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00046 | 0.00027 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00093 | 0.00013 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0018 | 0.00052 | 1 |
| o-Xylene | ND | | mg/kg | 0.00093 | 0.00027 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00093 | 0.00027 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00093 | 0.00010 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00018 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0018 | 0.00031 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 106 | | 70-130 |
| Toluene-d8 | 94 | | 70-130 |
| 4-Bromofluorobenzene | 102 | | 70-130 |
| Dibromofluoromethane | 104 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-07
 Client ID: GPR250-03-SS01D
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 15:45
 Analyst: JIC
 Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|--------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0019 | 0.00019 | 1 |
| Benzene | ND | | mg/kg | 0.00048 | 0.00016 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00097 | 0.00025 | 1 |
| Toluene | ND | | mg/kg | 0.00097 | 0.00052 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00048 | 0.00028 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00097 | 0.00014 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0019 | 0.00054 | 1 |
| o-Xylene | ND | | mg/kg | 0.00097 | 0.00028 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00097 | 0.00028 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00097 | 0.00010 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0019 | 0.00019 | 1 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0019 | 0.00032 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 108 | | 70-130 |
| Toluene-d8 | 93 | | 70-130 |
| 4-Bromofluorobenzene | 103 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-09
 Client ID: GPR250-01-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 14:38
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 12/20/23 16:24
 Analyst: JIC
 Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|--|---------|-----------|-------|---------|---------|-----------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0017 | 0.00017 | 1 |
| Benzene | 0.00028 | J | mg/kg | 0.00042 | 0.00014 | 1 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.00084 | 0.00022 | 1 |
| Toluene | ND | | mg/kg | 0.00084 | 0.00046 | 1 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00042 | 0.00025 | 1 |
| Ethylbenzene | ND | | mg/kg | 0.00084 | 0.00012 | 1 |
| p/m-Xylene | ND | | mg/kg | 0.0017 | 0.00047 | 1 |
| o-Xylene | ND | | mg/kg | 0.00084 | 0.00024 | 1 |
| Xylenes, Total | ND | | mg/kg | 0.00084 | 0.00024 | 1 |
| Isopropylbenzene | ND | | mg/kg | 0.00084 | 0.00009 | 1 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0017 | 0.00016 | 1 |
| 1,2,4-Trimethylbenzene | 0.00038 | J | mg/kg | 0.0017 | 0.00028 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 107 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 104 | | 70-130 |
| Dibromofluoromethane | 104 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-10
 Client ID: FB-231215-1
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:37
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/26/23 12:43
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/26/23 11:04

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-10
 Client ID: FB-231215-1
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:37
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 12/22/23 00:59
 Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 103 | | 70-130 |
| Toluene-d8 | 107 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 70-130 |
| Dibromofluoromethane | 100 | | 70-130 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-11
 Client ID: TB-231215-1
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:56
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8011
 Analytical Date: 12/26/23 12:51
 Analyst: JKH

Extraction Method: EPA 8011
 Extraction Date: 12/26/23 11:04

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|--------|-----------|-------|-------|-------|-----------------|--------|
| Microextractables by GC - Westborough Lab | | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | 1 | A |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-11
Client ID: TB-231215-1
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:56
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 12/22/23 01:25
Analyst: MJV

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Volatile Organics by GC/MS - Westborough Lab | | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 | 1 |
| Benzene | ND | | ug/l | 0.50 | 0.16 | 1 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 | 1 |
| Toluene | ND | | ug/l | 0.75 | 0.20 | 1 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 | 1 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 | 1 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 | 1 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|-----------------------|------------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 106 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260D
 Analytical Date: 12/20/23 09:50
 Analyst: AJK

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|---------|---------|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-04 Batch: WG1866806-5 | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0020 | 0.00020 |
| Benzene | ND | | mg/kg | 0.00050 | 0.00017 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.0010 | 0.00026 |
| Toluene | ND | | mg/kg | 0.0010 | 0.00054 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00050 | 0.00029 |
| Ethylbenzene | ND | | mg/kg | 0.0010 | 0.00014 |
| p/m-Xylene | ND | | mg/kg | 0.0020 | 0.00056 |
| o-Xylene | ND | | mg/kg | 0.0010 | 0.00029 |
| Xylenes, Total | ND | | mg/kg | 0.0010 | 0.00029 |
| Isopropylbenzene | ND | | mg/kg | 0.0010 | 0.00011 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00019 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00033 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|------------------------|
| 1,2-Dichloroethane-d4 | 108 | | 70-130 |
| Toluene-d8 | 97 | | 70-130 |
| 4-Bromofluorobenzene | 93 | | 70-130 |
| Dibromofluoromethane | 102 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260D
 Analytical Date: 12/20/23 09:58
 Analyst: AJK

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|---------|---------|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 06-07,09 Batch: WG1866905-5 | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0020 | 0.00020 |
| Benzene | ND | | mg/kg | 0.00050 | 0.00017 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.0010 | 0.00026 |
| Toluene | ND | | mg/kg | 0.0010 | 0.00054 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00050 | 0.00029 |
| Ethylbenzene | ND | | mg/kg | 0.0010 | 0.00014 |
| p/m-Xylene | ND | | mg/kg | 0.0020 | 0.00056 |
| o-Xylene | ND | | mg/kg | 0.0010 | 0.00029 |
| Xylenes, Total | ND | | mg/kg | 0.0010 | 0.00029 |
| Isopropylbenzene | ND | | mg/kg | 0.0010 | 0.00011 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00019 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00033 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|------------------------|
| 1,2-Dichloroethane-d4 | 100 | | 70-130 |
| Toluene-d8 | 96 | | 70-130 |
| 4-Bromofluorobenzene | 102 | | 70-130 |
| Dibromofluoromethane | 100 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/21/23 09:26
Analyst: LAC

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|---------|---------|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 05 Batch: WG1867304-5 | | | | | |
| Methyl tert butyl ether | ND | | mg/kg | 0.0020 | 0.00020 |
| Benzene | ND | | mg/kg | 0.00050 | 0.00017 |
| 1,2-Dichloroethane | ND | | mg/kg | 0.0010 | 0.00026 |
| Toluene | ND | | mg/kg | 0.0010 | 0.00054 |
| 1,2-Dibromoethane | ND | | mg/kg | 0.00050 | 0.00029 |
| Ethylbenzene | ND | | mg/kg | 0.0010 | 0.00014 |
| p/m-Xylene | ND | | mg/kg | 0.0020 | 0.00056 |
| o-Xylene | ND | | mg/kg | 0.0010 | 0.00029 |
| Xylenes, Total | ND | | mg/kg | 0.0010 | 0.00029 |
| Isopropylbenzene | ND | | mg/kg | 0.0010 | 0.00011 |
| 1,3,5-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00019 |
| 1,2,4-Trimethylbenzene | ND | | mg/kg | 0.0020 | 0.00033 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 107 | | 70-130 |
| Toluene-d8 | 97 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 70-130 |
| Dibromofluoromethane | 105 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 12/21/23 21:06
Analyst: MAG

| Parameter | Result | Qualifier | Units | RL | MDL |
|--|--------|-----------|-------|------|------|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 10-11 Batch: WG1867314-5 | | | | | |
| Methyl tert butyl ether | ND | | ug/l | 1.0 | 0.17 |
| Benzene | ND | | ug/l | 0.50 | 0.16 |
| 1,2-Dichloroethane | ND | | ug/l | 0.50 | 0.13 |
| Toluene | ND | | ug/l | 0.75 | 0.20 |
| Ethylbenzene | ND | | ug/l | 0.50 | 0.17 |
| p/m-Xylene | ND | | ug/l | 1.0 | 0.33 |
| o-Xylene | ND | | ug/l | 1.0 | 0.39 |
| Xylenes, Total | ND | | ug/l | 1.0 | 0.33 |
| Isopropylbenzene | ND | | ug/l | 0.50 | 0.19 |
| 1,3,5-Trimethylbenzene | ND | | ug/l | 2.5 | 0.22 |
| 1,2,4-Trimethylbenzene | ND | | ug/l | 2.5 | 0.19 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|-----------------------|-----------|-----------|---------------------|
| 1,2-Dichloroethane-d4 | 101 | | 70-130 |
| Toluene-d8 | 108 | | 70-130 |
| 4-Bromofluorobenzene | 109 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8011
Analytical Date: 12/26/23 12:11
Analyst: JKH

Extraction Method: EPA 8011
Extraction Date: 12/26/23 11:04

| Parameter | Result | Qualifier | Units | RL | MDL | |
|---|--------|-----------|-------|-------|-------|---|
| Microextractables by GC - Westborough Lab for sample(s): 10-11 Batch: WG1868000-1 | | | | | | |
| 1,2-Dibromoethane | ND | | ug/l | 0.010 | 0.005 | A |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCS %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-04 Batch: WG1866806-3 WG1866806-4 | | | | | | | | |
| Methyl tert butyl ether | 130 | | 122 | | 66-130 | 6 | | 30 |
| Benzene | 106 | | 100 | | 70-130 | 6 | | 30 |
| 1,2-Dichloroethane | 107 | | 101 | | 70-130 | 6 | | 30 |
| Toluene | 101 | | 96 | | 70-130 | 5 | | 30 |
| 1,2-Dibromoethane | 120 | | 118 | | 70-130 | 2 | | 30 |
| Ethylbenzene | 102 | | 96 | | 70-130 | 6 | | 30 |
| p/m-Xylene | 105 | | 100 | | 70-130 | 5 | | 30 |
| o-Xylene | 102 | | 98 | | 70-130 | 4 | | 30 |
| Isopropylbenzene | 93 | | 89 | | 70-130 | 4 | | 30 |
| 1,3,5-Trimethylbenzene | 93 | | 90 | | 70-130 | 3 | | 30 |
| 1,2,4-Trimethylbenzene | 94 | | 90 | | 70-130 | 4 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCS %Recovery | Qual | Acceptance Criteria |
|-----------------------|------------------|------|------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 112 | | 109 | | 70-130 |
| Toluene-d8 | 99 | | 96 | | 70-130 |
| 4-Bromofluorobenzene | 93 | | 94 | | 70-130 |
| Dibromofluoromethane | 104 | | 104 | | 70-130 |



Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | LCS | | LCSD | | %Recovery Limits | RPD | RPD | |
|---|-----------|------|-----------|------|------------------|-----|------|--------|
| | %Recovery | Qual | %Recovery | Qual | | | Qual | Limits |
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06-07,09 Batch: WG1866905-3 WG1866905-4 | | | | | | | | |
| Methyl tert butyl ether | 97 | | 98 | | 66-130 | 1 | | 30 |
| Benzene | 94 | | 94 | | 70-130 | 0 | | 30 |
| 1,2-Dichloroethane | 94 | | 93 | | 70-130 | 1 | | 30 |
| Toluene | 87 | | 87 | | 70-130 | 0 | | 30 |
| 1,2-Dibromoethane | 91 | | 93 | | 70-130 | 2 | | 30 |
| Ethylbenzene | 90 | | 90 | | 70-130 | 0 | | 30 |
| p/m-Xylene | 92 | | 92 | | 70-130 | 0 | | 30 |
| o-Xylene | 92 | | 92 | | 70-130 | 0 | | 30 |
| Isopropylbenzene | 91 | | 90 | | 70-130 | 1 | | 30 |
| 1,3,5-Trimethylbenzene | 92 | | 92 | | 70-130 | 0 | | 30 |
| 1,2,4-Trimethylbenzene | 92 | | 91 | | 70-130 | 1 | | 30 |

| Surrogate | LCS | | LCSD | | Acceptance Criteria |
|-----------------------|-----------|------|-----------|------|---------------------|
| | %Recovery | Qual | %Recovery | Qual | |
| 1,2-Dichloroethane-d4 | 100 | | 101 | | 70-130 |
| Toluene-d8 | 94 | | 94 | | 70-130 |
| 4-Bromofluorobenzene | 102 | | 101 | | 70-130 |
| Dibromofluoromethane | 102 | | 103 | | 70-130 |



Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05 Batch: WG1867304-3 WG1867304-4 | | | | | | | | |
| Methyl tert butyl ether | 124 | | 126 | | 66-130 | 2 | | 30 |
| Benzene | 106 | | 103 | | 70-130 | 3 | | 30 |
| 1,2-Dichloroethane | 104 | | 103 | | 70-130 | 1 | | 30 |
| Toluene | 99 | | 96 | | 70-130 | 3 | | 30 |
| 1,2-Dibromoethane | 119 | | 120 | | 70-130 | 1 | | 30 |
| Ethylbenzene | 98 | | 95 | | 70-130 | 3 | | 30 |
| p/m-Xylene | 102 | | 100 | | 70-130 | 2 | | 30 |
| o-Xylene | 100 | | 98 | | 70-130 | 2 | | 30 |
| Isopropylbenzene | 91 | | 88 | | 70-130 | 3 | | 30 |
| 1,3,5-Trimethylbenzene | 91 | | 89 | | 70-130 | 2 | | 30 |
| 1,2,4-Trimethylbenzene | 92 | | 89 | | 70-130 | 3 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|-----------------------|------------------|------|-------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 109 | | 109 | | 70-130 |
| Toluene-d8 | 97 | | 95 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 92 | | 70-130 |
| Dibromofluoromethane | 106 | | 106 | | 70-130 |



Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10-11 Batch: WG1867314-3 WG1867314-4 | | | | | | | | |
| Methyl tert butyl ether | 89 | | 88 | | 63-130 | 1 | | 20 |
| Benzene | 98 | | 97 | | 70-130 | 1 | | 20 |
| 1,2-Dichloroethane | 98 | | 96 | | 70-130 | 2 | | 20 |
| Toluene | 100 | | 100 | | 70-130 | 0 | | 20 |
| Ethylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |
| p/m-Xylene | 105 | | 105 | | 70-130 | 0 | | 20 |
| o-Xylene | 105 | | 100 | | 70-130 | 5 | | 20 |
| Isopropylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |
| 1,3,5-Trimethylbenzene | 110 | | 100 | | 64-130 | 10 | | 20 |
| 1,2,4-Trimethylbenzene | 110 | | 100 | | 70-130 | 10 | | 20 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|-----------------------|------------------|------|-------------------|------|------------------------|
| 1,2-Dichloroethane-d4 | 101 | | 99 | | 70-130 |
| Toluene-d8 | 108 | | 107 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 106 | | 70-130 |
| Dibromofluoromethane | 99 | | 100 | | 70-130 |

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY

Project Number: P044.001.002

Lab Number: L2374526

Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|--|--------------------------|-------------|---------------------------|-------------|-----------------------------|------------|-------------|-----------------------|---------------|
| Microextractables by GC - Westborough Lab Associated sample(s): 10-11 Batch: WG1868000-2 | | | | | | | | | |
| 1,2-Dibromoethane | 92 | | - | | 80-120 | - | | 20 | A |

Matrix Spike Analysis

Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits | Column |
|--|----------------------|-----------------|-----------------|---------------------|-------------|------------------|----------------------|-------------|------------------------|------------|-------------|-------------------|---------------|
| Microextractables by GC - Westborough Lab Associated sample(s): 10-11 QC Batch ID: WG1868000-3 QC Sample: L2374526-10 Client ID: FB-231215-1 | | | | | | | | | | | | | |
| 1,2-Dibromoethane | ND | 0.25 | 0.233 | 93 | | - | - | | 80-120 | - | | 20 | A |

SEMIVOLATILES

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-01
 Client ID: GPR251-01-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 14:12
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 10:00
 Analyst: EK
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | ND | | mg/kg | 0.039 | 0.024 | 1 |
| Fluorene | ND | | mg/kg | 0.19 | 0.019 | 1 |
| Phenanthrene | 0.092 | J | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | ND | | mg/kg | 0.12 | 0.038 | 1 |
| Pyrene | 0.13 | | mg/kg | 0.12 | 0.019 | 1 |
| Benzo(a)anthracene | 0.078 | J | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.077 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(b)fluoranthene | 0.093 | J | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | 0.081 | J | mg/kg | 0.16 | 0.047 | 1 |
| Benzo(ghi)perylene | 0.043 | J | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 65 | | 23-120 |
| 2-Fluorobiphenyl | 58 | | 30-120 |
| 4-Terphenyl-d14 | 65 | | 18-120 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-02
 Client ID: GPR250-02-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:26
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 09:11
 Analyst: EK
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | ND | | mg/kg | 0.039 | 0.024 | 1 |
| Fluorene | ND | | mg/kg | 0.20 | 0.019 | 1 |
| Phenanthrene | 0.028 | J | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | ND | | mg/kg | 0.12 | 0.038 | 1 |
| Pyrene | 0.045 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(a)anthracene | 0.032 | J | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.039 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(b)fluoranthene | 0.058 | J | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | ND | | mg/kg | 0.16 | 0.048 | 1 |
| Benzo(ghi)perylene | 0.038 | J | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 68 | | 23-120 |
| 2-Fluorobiphenyl | 63 | | 30-120 |
| 4-Terphenyl-d14 | 70 | | 18-120 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-03
 Client ID: GPR251-02-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:08
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 08:21
 Analyst: EK
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | ND | | mg/kg | 0.037 | 0.023 | 1 |
| Fluorene | ND | | mg/kg | 0.19 | 0.018 | 1 |
| Phenanthrene | ND | | mg/kg | 0.11 | 0.023 | 1 |
| Anthracene | ND | | mg/kg | 0.11 | 0.036 | 1 |
| Pyrene | 0.033 | J | mg/kg | 0.11 | 0.018 | 1 |
| Benzo(a)anthracene | 0.022 | J | mg/kg | 0.11 | 0.021 | 1 |
| Chrysene | 0.022 | J | mg/kg | 0.11 | 0.019 | 1 |
| Benzo(b)fluoranthene | ND | | mg/kg | 0.11 | 0.031 | 1 |
| Benzo(a)pyrene | ND | | mg/kg | 0.15 | 0.046 | 1 |
| Benzo(ghi)perylene | ND | | mg/kg | 0.15 | 0.022 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 65 | | 23-120 |
| 2-Fluorobiphenyl | 60 | | 30-120 |
| 4-Terphenyl-d14 | 66 | | 18-120 |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-04
 Client ID: GPR251-03-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:45
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 10:25
 Analyst: EK
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | 0.035 | J | mg/kg | 0.039 | 0.024 | 1 |
| Fluorene | ND | | mg/kg | 0.20 | 0.019 | 1 |
| Phenanthrene | 0.046 | J | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | ND | | mg/kg | 0.12 | 0.038 | 1 |
| Pyrene | 0.077 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(a)anthracene | 0.060 | J | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.063 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(b)fluoranthene | 0.084 | J | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | 0.076 | J | mg/kg | 0.16 | 0.048 | 1 |
| Benzo(ghi)perylene | 0.044 | J | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 69 | | 23-120 |
| 2-Fluorobiphenyl | 62 | | 30-120 |
| 4-Terphenyl-d14 | 66 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-05
 Client ID: GPR251-04-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:33
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 10:50
 Analyst: EK
 Percent Solids: 75%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | 0.18 | | mg/kg | 0.043 | 0.026 | 1 |
| Fluorene | ND | | mg/kg | 0.22 | 0.021 | 1 |
| Phenanthrene | 0.12 | J | mg/kg | 0.13 | 0.026 | 1 |
| Anthracene | ND | | mg/kg | 0.13 | 0.042 | 1 |
| Pyrene | 0.20 | | mg/kg | 0.13 | 0.021 | 1 |
| Benzo(a)anthracene | 0.15 | | mg/kg | 0.13 | 0.024 | 1 |
| Chrysene | 0.17 | | mg/kg | 0.13 | 0.022 | 1 |
| Benzo(b)fluoranthene | 0.23 | | mg/kg | 0.13 | 0.036 | 1 |
| Benzo(a)pyrene | 0.21 | | mg/kg | 0.17 | 0.052 | 1 |
| Benzo(ghi)perylene | 0.13 | J | mg/kg | 0.17 | 0.025 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 83 | | 23-120 |
| 2-Fluorobiphenyl | 74 | | 30-120 |
| 4-Terphenyl-d14 | 81 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-06
 Client ID: GPR250-03-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 09:35
 Analyst: EK
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | ND | | mg/kg | 0.040 | 0.024 | 1 |
| Fluorene | ND | | mg/kg | 0.20 | 0.019 | 1 |
| Phenanthrene | 0.28 | | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | 0.057 | J | mg/kg | 0.12 | 0.039 | 1 |
| Pyrene | 0.48 | | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(a)anthracene | 0.28 | | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.28 | | mg/kg | 0.12 | 0.021 | 1 |
| Benzo(b)fluoranthene | 0.31 | | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | 0.27 | | mg/kg | 0.16 | 0.048 | 1 |
| Benzo(ghi)perylene | 0.14 | J | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 72 | | 23-120 |
| 2-Fluorobiphenyl | 64 | | 30-120 |
| 4-Terphenyl-d14 | 70 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-07
 Client ID: GPR250-03-SS01D
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 08:46
 Analyst: EK
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | ND | | mg/kg | 0.039 | 0.024 | 1 |
| Fluorene | ND | | mg/kg | 0.20 | 0.019 | 1 |
| Phenanthrene | 0.056 | J | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | ND | | mg/kg | 0.12 | 0.038 | 1 |
| Pyrene | 0.069 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(a)anthracene | 0.035 | J | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.038 | J | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(b)fluoranthene | 0.042 | J | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | ND | | mg/kg | 0.16 | 0.048 | 1 |
| Benzo(ghi)perylene | ND | | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 72 | | 23-120 |
| 2-Fluorobiphenyl | 67 | | 30-120 |
| 4-Terphenyl-d14 | 78 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-09
 Client ID: GPR250-01-SS01
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 14:38
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 12/19/23 12:28
 Analyst: EK
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|-------|-------|-----------------|
| Semivolatile Organics by GC/MS - Westborough Lab | | | | | | |
| Naphthalene | 0.19 | | mg/kg | 0.040 | 0.024 | 1 |
| Fluorene | 0.021 | J | mg/kg | 0.20 | 0.019 | 1 |
| Phenanthrene | 0.24 | | mg/kg | 0.12 | 0.024 | 1 |
| Anthracene | 0.11 | J | mg/kg | 0.12 | 0.039 | 1 |
| Pyrene | 0.55 | | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(a)anthracene | 0.37 | | mg/kg | 0.12 | 0.022 | 1 |
| Chrysene | 0.42 | | mg/kg | 0.12 | 0.020 | 1 |
| Benzo(b)fluoranthene | 0.58 | | mg/kg | 0.12 | 0.033 | 1 |
| Benzo(a)pyrene | 0.45 | | mg/kg | 0.16 | 0.048 | 1 |
| Benzo(ghi)perylene | 0.30 | | mg/kg | 0.16 | 0.023 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 68 | | 23-120 |
| 2-Fluorobiphenyl | 57 | | 30-120 |
| 4-Terphenyl-d14 | 58 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-10
 Client ID: FB-231215-1
 Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 18:37
 Date Received: 12/15/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 12/22/23 11:00
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|--------|-----------|-------|------|------|-----------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab | | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 | 1 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 | 1 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 | 1 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 | 1 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 | 1 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|------------------|------------|-----------|---------------------|
| Nitrobenzene-d5 | 48 | | 23-120 |
| 2-Fluorobiphenyl | 49 | | 15-120 |
| 4-Terphenyl-d14 | 52 | | 41-149 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270E
Analytical Date: 12/19/23 05:54
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 12/18/23 09:19

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|-------|-------|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07,09 Batch: WG1865200-1 | | | | | |
| Naphthalene | ND | | mg/kg | 0.033 | 0.020 |
| Fluorene | ND | | mg/kg | 0.16 | 0.016 |
| Phenanthrene | ND | | mg/kg | 0.099 | 0.020 |
| Anthracene | ND | | mg/kg | 0.099 | 0.032 |
| Pyrene | ND | | mg/kg | 0.099 | 0.016 |
| Benzo(a)anthracene | ND | | mg/kg | 0.099 | 0.018 |
| Chrysene | ND | | mg/kg | 0.099 | 0.017 |
| Benzo(b)fluoranthene | ND | | mg/kg | 0.099 | 0.028 |
| Benzo(a)pyrene | ND | | mg/kg | 0.13 | 0.040 |
| Benzo(ghi)perylene | ND | | mg/kg | 0.13 | 0.019 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|------------------|-----------|-----------|------------------------|
| Nitrobenzene-d5 | 66 | | 23-120 |
| 2-Fluorobiphenyl | 62 | | 30-120 |
| 4-Terphenyl-d14 | 77 | | 18-120 |

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270E-SIM
Analytical Date: 12/21/23 17:36
Analyst: RP

Extraction Method: EPA 3510C
Extraction Date: 12/21/23 08:00

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|--------|-----------|-------|------|------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 10 Batch: WG1866777-1 | | | | | |
| Naphthalene | ND | | ug/l | 0.10 | 0.05 |
| Fluorene | ND | | ug/l | 0.10 | 0.01 |
| Phenanthrene | ND | | ug/l | 0.05 | 0.02 |
| Anthracene | ND | | ug/l | 0.10 | 0.01 |
| Pyrene | ND | | ug/l | 0.10 | 0.02 |
| Benzo(a)anthracene | ND | | ug/l | 0.05 | 0.02 |
| Chrysene | ND | | ug/l | 0.10 | 0.01 |
| Benzo(b)fluoranthene | ND | | ug/l | 0.05 | 0.01 |
| Benzo(a)pyrene | ND | | ug/l | 0.10 | 0.02 |
| Benzo(ghi)perylene | ND | | ug/l | 0.10 | 0.01 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|------------------|-----------|-----------|------------------------|
| Nitrobenzene-d5 | 80 | | 23-120 |
| 2-Fluorobiphenyl | 75 | | 15-120 |
| 4-Terphenyl-d14 | 71 | | 41-149 |

Lab Control Sample Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09 Batch: WG1865200-2 WG1865200-3 | | | | | | | | |
| Naphthalene | 56 | | 61 | | 40-140 | 9 | | 50 |
| Fluorene | 56 | | 62 | | 40-140 | 10 | | 50 |
| Phenanthrene | 57 | | 64 | | 40-140 | 12 | | 50 |
| Anthracene | 60 | | 66 | | 40-140 | 10 | | 50 |
| Pyrene | 62 | | 66 | | 35-142 | 6 | | 50 |
| Benzo(a)anthracene | 57 | | 64 | | 40-140 | 12 | | 50 |
| Chrysene | 61 | | 68 | | 40-140 | 11 | | 50 |
| Benzo(b)fluoranthene | 62 | | 66 | | 40-140 | 6 | | 50 |
| Benzo(a)pyrene | 69 | | 73 | | 40-140 | 6 | | 50 |
| Benzo(ghi)perylene | 59 | | 64 | | 40-140 | 8 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|------------------|------------------|------|-------------------|------|------------------------|
| Nitrobenzene-d5 | 62 | | 67 | | 23-120 |
| 2-Fluorobiphenyl | 57 | | 64 | | 30-120 |
| 4-Terphenyl-d14 | 67 | | 72 | | 18-120 |



Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|--|------------------|------|-------------------|------|---------------------|-----|------|---------------|
| Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 10 Batch: WG1866777-2 WG1866777-3 | | | | | | | | |
| Naphthalene | 58 | | 75 | | 40-140 | 26 | | 40 |
| Fluorene | 59 | | 76 | | 40-140 | 25 | | 40 |
| Phenanthrene | 58 | | 74 | | 40-140 | 24 | | 40 |
| Anthracene | 59 | | 76 | | 40-140 | 25 | | 40 |
| Pyrene | 55 | | 68 | | 26-127 | 21 | | 40 |
| Benzo(a)anthracene | 66 | | 86 | | 40-140 | 26 | | 40 |
| Chrysene | 61 | | 78 | | 40-140 | 24 | | 40 |
| Benzo(b)fluoranthene | 59 | | 74 | | 40-140 | 23 | | 40 |
| Benzo(a)pyrene | 57 | | 72 | | 40-140 | 23 | | 40 |
| Benzo(ghi)perylene | 66 | | 83 | | 40-140 | 23 | | 40 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|------------------|------------------|------|-------------------|------|------------------------|
| Nitrobenzene-d5 | 67 | | 84 | | 23-120 |
| 2-Fluorobiphenyl | 61 | | 75 | | 15-120 |
| 4-Terphenyl-d14 | 55 | | 67 | | 41-149 |

METALS

Project Name: FORMER PHILADEPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**SAMPLE RESULTS**

Lab ID: L2374526-01

Date Collected: 12/15/23 14:12

Client ID: GPR251-01-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|--------------------|------------------|------------------|----------------|----------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 38.0 | | mg/kg | 2.29 | 0.123 | 1 | 12/19/23 14:53 | 12/20/23 21:32 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-02

Date Collected: 12/15/23 16:26

Client ID: GPR250-02-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 36.3 | | mg/kg | 2.24 | 0.120 | 1 | 12/19/23 14:53 | 12/20/23 21:37 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-03

Date Collected: 12/15/23 16:08

Client ID: GPR251-02-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 21.8 | | mg/kg | 2.28 | 0.122 | 1 | 12/19/23 14:53 | 12/20/23 21:42 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-04

Date Collected: 12/15/23 15:45

Client ID: GPR251-03-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 40.1 | | mg/kg | 2.32 | 0.124 | 1 | 12/19/23 14:53 | 12/20/23 21:47 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-05

Date Collected: 12/15/23 15:33

Client ID: GPR251-04-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 75%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 66.7 | | mg/kg | 2.63 | 0.141 | 1 | 12/19/23 14:53 | 12/20/23 21:51 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-06

Date Collected: 12/15/23 15:17

Client ID: GPR250-03-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 19.8 | | mg/kg | 2.36 | 0.126 | 1 | 12/19/23 14:53 | 12/20/23 21:56 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-07

Date Collected: 12/15/23 15:17

Client ID: GPR250-03-SS01D

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 17.2 | | mg/kg | 2.31 | 0.124 | 1 | 12/19/23 14:53 | 12/20/23 22:24 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-09

Date Collected: 12/15/23 14:38

Client ID: GPR250-01-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|------|-------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | 350 | | mg/kg | 2.35 | 0.126 | 1 | 12/19/23 14:53 | 12/20/23 22:28 | EPA 3050B | 1,6010D | TAA |



Project Name: FORMER PHILADEPHIA REFINERY

Lab Number: L2374526

Project Number: P044.001.002

Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-10

Date Collected: 12/15/23 18:37

Client ID: FB-231215-1

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Water

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|-------------------------------------|--------|-----------|-------|-------|--------|-----------------|----------------|----------------|-------------|-------------------|---------|
| Total Metals - Mansfield Lab | | | | | | | | | | | |
| Lead, Total | ND | | ug/l | 1.000 | 0.3430 | 1 | 12/20/23 19:10 | 12/21/23 07:25 | EPA 3005A | 1,6020B | EJF |



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Method Blank Analysis Batch Quality Control

| Parameter | Result Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|------------------|-------|------|-------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 01-07,09 Batch: WG1865412-1 | | | | | | | | | |
| Lead, Total | ND | mg/kg | 2.00 | 0.107 | 1 | 12/19/23 14:53 | 12/20/23 19:40 | 1,6010D | TAA |

Prep Information

Digestion Method: EPA 3050B

| Parameter | Result Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|------------------|-------|-------|--------|-----------------|----------------|----------------|-------------------|---------|
| Total Metals - Mansfield Lab for sample(s): 10 Batch: WG1866341-1 | | | | | | | | | |
| Lead, Total | ND | ug/l | 1.000 | 0.3430 | 1 | 12/20/23 19:10 | 12/21/23 07:01 | 1,6020B | EJF |

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|------------------|------|-------------------|------|---------------------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-07,09 Batch: WG1865412-2 SRM Lot Number: D122-540 | | | | | | | | |
| Lead, Total | 100 | | - | | 83-117 | - | | |
| Total Metals - Mansfield Lab Associated sample(s): 10 Batch: WG1866341-2 | | | | | | | | |
| Lead, Total | 106 | | - | | 80-120 | - | | |

Matrix Spike Analysis Batch Quality Control

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | MS Qual | MSD Found | MSD %Recovery | MSD Qual | Recovery Limits | RPD | RPD Qual | RPD Limits |
|---|---------------|----------|----------|--------------|---------|-----------|---------------|----------|-----------------|-----|----------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-07,09 QC Batch ID: WG1865412-3 QC Sample: L2373843-01 Client ID: MS Sample | | | | | | | | | | | | |
| Lead, Total | 319 | 49.2 | 453 | 272 | Q | - | - | | 75-125 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 10 QC Batch ID: WG1866341-3 QC Sample: L2374526-10 Client ID: FB-231215-1 | | | | | | | | | | | | |
| Lead, Total | ND | 530 | 550.3 | 104 | | - | - | | 75-125 | - | | 20 |

Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Project Number: P044.001.002

Lab Number: L2374526

Report Date: 12/26/23

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---------------|------------------|-------|-----|------|------------|
| Total Metals - Mansfield Lab Associated sample(s): 01-07,09 QC Batch ID: WG1865412-4 QC Sample: L2373843-01 Client ID: DUP Sample | | | | | | |
| Lead, Total | 319 | 405 | mg/kg | 24 | Q | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 10 QC Batch ID: WG1866341-4 QC Sample: L2374526-10 Client ID: FB-231215-1 | | | | | | |
| Lead, Total | ND | ND | ug/l | NC | | 20 |

INORGANICS & MISCELLANEOUS

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-01
Client ID: GPR251-01-SS01
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 14:12
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 84.3 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-02
Client ID: GPR250-02-SS01
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:26
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 83.8 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-03
Client ID: GPR251-02-SS01
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 16:08
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 86.7 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-04
Client ID: GPR251-03-SS01
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:45
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 82.9 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-05
Client ID: GPR251-04-SS01
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:33
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 75.2 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**SAMPLE RESULTS**

Lab ID: L2374526-06

Date Collected: 12/15/23 15:17

Client ID: GPR250-03-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 83.4 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

SAMPLE RESULTS

Lab ID: L2374526-07
Client ID: GPR250-03-SS01D
Sample Location: 3144 W. PASSYUNK AVE.

Date Collected: 12/15/23 15:17
Date Received: 12/15/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 83.4 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Project Name: FORMER PHILADEPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**SAMPLE RESULTS**

Lab ID: L2374526-09

Date Collected: 12/15/23 14:38

Client ID: GPR250-01-SS01

Date Received: 12/15/23

Sample Location: 3144 W. PASSYUNK AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|--|--------|-----------|-------|-------|-----|-----------------|---------------|----------------|-------------------|---------|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 82.8 | | % | 0.100 | NA | 1 | - | 12/16/23 19:01 | 121,2540G | SJB |



Lab Duplicate Analysis

Batch Quality Control

Project Name: FORMER PHILADELPHIA REFINERY

Project Number: P044.001.002

Lab Number: L2374526

Report Date: 12/26/23

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|--|---------------|------------------|-------|-----|------|------------|
| General Chemistry - Westborough Lab Associated sample(s): 01-07,09 QC Batch ID: WG1864892-1 QC Sample: L2373100-01 Client ID: DUP Sample | | | | | | |
| Solids, Total | 68.9 | 69.3 | % | 1 | | 20 |

Project Name: FORMER PHILADEPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

| Cooler | Custody Seal |
|---------------|---------------------|
| A | Absent |
| B | Absent |

Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|--|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2374526-01A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-01B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-01C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-01D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-01E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-01F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-02A | Vial water preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-02B | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-02C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-02D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-02E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-02F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-03A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-03B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-03C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-03D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-03E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-03F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-04A | Vial water preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-04B | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-04C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-04D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |

Project Name: FORMER PHILADEPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**Container Information**

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|--|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|--------------------|
| L2374526-04E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-04F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-05A | Vial water preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-05B | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-05C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-05D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-05E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-05F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-06A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-06B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-06C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-06D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-06E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-06F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-07A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-07B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-07C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-07D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-07E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-07F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-08A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | HOLD-8260HLW(14) |
| L2374526-08B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | HOLD-8260HLW(14) |
| L2374526-08C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | HOLD-8260HLW(14) |
| L2374526-08D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | HOLD-WETCHEM() |
| L2374526-08E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | HOLD-METAL(180) |
| L2374526-08F | Glass 120ml/4oz unpreserved | NA | NA | | | Y | Absent | | HOLD-8260HLW(14) |
| L2374526-09A | Vial MeOH preserved | A | NA | | 3.9 | Y | Absent | | PA-8260HLW(14) |
| L2374526-09B | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |

Project Name: FORMER PHILADEPHIA REFINERY**Lab Number:** L2374526**Project Number:** P044.001.002**Report Date:** 12/26/23**Container Information**

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---------------------|--|---------------|-------------------|-----------------|-------------------|-------------|-------------|-------------------------|----------------------|
| L2374526-09C | Vial water preserved | A | NA | | 3.9 | Y | Absent | 16-DEC-23 10:53 | PA-8260HLW(14) |
| L2374526-09D | Plastic 120ml unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2374526-09E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2374526-09F | Glass 120ml/4oz unpreserved | A | NA | | 3.9 | Y | Absent | | PA-PAH(14) |
| L2374526-10A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374526-10B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14),PA-8260(14) |
| L2374526-10C | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374526-10D | Plastic 250ml HNO3 preserved | A | <2 | <2 | 3.9 | Y | Absent | | PB-6020T-PPB(180) |
| L2374526-10E | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374526-10F | Amber 250ml unpreserved | A | 7 | 7 | 3.9 | Y | Absent | | PA-PAHSIM-LVI(7) |
| L2374526-11A | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | PA-8260(14) |
| L2374526-11B | Vial HCl preserved | A | NA | | 3.9 | Y | Absent | | 8011(14),PA-8260(14) |

Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

GLOSSARY

Acronyms

| | |
|----------|--|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| NR | - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

Report Format: DU Report with 'J' Qualifiers



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: FORMER PHILADELPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name: FORMER PHILADEPHIA REFINERY
Project Number: P044.001.002

Lab Number: L2374526
Report Date: 12/26/23

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625.1: alpha-Terpineol

EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B

EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables).

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

PADEP Short List 1-5:

Benzene
Cumene
1,2 – Dibromoethane
1,2 – Dichloroethane
Ethyl Benzene
Toluene
1,2,4 – Trimethylbenzene
1,3,5 – Trimethylbenzene
Methyl tert-butyl ether
Xylenes (total)
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Chrysene
Fluorene
Naphthalene
Phenanthrene
Pyrene
Lead