



October 20, 2021

Lindley Campbell
Geologist, Oil Control Program
Land and Materials Administration
Maryland Department of the Environment
1800 Washington Blvd., Suite 620
Baltimore, MD 21230-1720

**Re: Bel Air Station, Harford County, Maryland
MDE Case No. 18-0459HA / 21-0104HA
Subsurface Investigation Report – Aboveground Valve Release**

Dear Ms. Campbell:

Colonial Pipeline Company (Colonial) is submitting this *Subsurface Investigation Report* (SIR) summarizing soil remediation activities in response to an aboveground release of petroleum product from two adjacent valves at the Colonial Bel Air Pump Station (Site) on September 10, 2021. This release is being included in the combined case numbers for the September 2020 Unit 3 Release (21-0104HA) and the historic HA-3 Area (18-0459HA). TRC Environmental Corporation (TRC), on behalf of Colonial, has prepared this SIR as requested by the Maryland Department of Environment (MDE) in a Report of Observation (ROO) dated September 13, 2021. The September 13, 2021 ROO is included as **Attachment 1**.

Per communication with the MDE, this report will satisfy the requirement of the 10-day spill cleanup notification in accordance with Code of Maryland Regulation §26.10.01.03(E) for the referenced release.

Summary of Release and Initial Response

On September 10, 2021, during continuation of post tie-in work for the new drain/purge line system, a small active weep of ultra-low sulfur diesel (ULSD) was observed from the main line block valve and the Station discharge valve. The release was immediately contained utilizing sorbents pads, sorbent booms, and pans. The on-Site Inspector immediately notified the proper Colonial personnel who then made the appropriate internal and agency notifications. Colonial personnel mobilized to the Site to investigate and stop the release. As communicated to the MDE representative on September 13, 2021, the release was located discharging from a nut/bolt on the main line block valve and a seam on the Station discharge valve. Less than 2-gallons of ULSD was released.

During decommissioning of the existing drain/purge line system and construction of the new drain/purge line system, leak detection was temporarily routed to an aboveground containment tank. Due to the tank elevation, product in the leak detection tubing backed into the stem seal containment and resulted in a discharge from the mainline block and Station discharge valves, respectively, at the connection between the yoke tube and hydraulic actuator. When the stem seal leak detection was bled (by slowly opening into a pan) the release stopped. The release was stopped on September 10, 2021. Pending completion and recommissioning of the drain line project, the elevation of the aboveground tanks was adjusted to allow for proper drainage from the valves. Upon completion of the drain line project, the valves were reconnected to the drain line system consistent with the pre-existing conditions.

Summary of Soil Remediation via Excavation

Initial surface soils in the vicinity of the releases exhibited photo-ionization detector (PID) readings ranging from 30 parts per million (ppm) to 300 ppm. Staining of gravel indicated that the release did not extend horizontally from the main line block valve or the Station discharge valve. Remedial excavation of impacted soil around the main line block valve and Station discharge valve was conducted on September 13, 2021 by Atlantic Industrial, Mechanical, and Electrical (AIME) of Baltimore, Maryland at the direction of TRC and Colonial. The excavation was located on the northern and eastern sides of the main line block valve and the southern and eastern sides of the Station discharge valve (where the releases were located). The excavation extended from the main line block valve to the Station discharge valve covering an area of approximately 28-square feet to a depth of approximately 34-inches. The excavation extended laterally out from the valves approximately 19-inches to 26-inches. Excavation extents are shown on **Figure 1**.

A total of approximately 5.7-tons of impacted soil was removed for offsite disposal. Impacted soil was transported by truck to Soil Safe Inc., located in Logan Township, NJ. Note that the impacted soil was transported with additional volumes of soil from the drain/purge line replacement project totaling 21.11-tons, as shown on the disposal manifest. The remedial excavation did not extend to groundwater and thus groundwater was not recovered from this remediation. The soil disposal manifest is included as **Attachment 2**.

Two post-excavation soil samples were collected in the excavation at the direction of the MDE representative. One post-excavation soil sample, PX-Valve 3 (33.5”), was collected at the bottom of the main line block valve portion of the excavation and the second post-excavation soil sample, PX-Dis Valve (34”), was collected from the bottom of the Station discharge valve portion of the excavation. Soil conditions at the bottom of the excavation indicated minimal impact with relatively low PID readings of 10 ppm at the main line block valve portion of the excavation and 4 ppm at the Station discharge portion of the excavation. Soil samples were collected from the 6-inch interval immediately below the excavation bottom via USEPA Method 5035 for analysis of volatile organic compounds (VOCs) including fuel oxygenates and naphthalene, total petroleum hydrocarbons diesel range organics (TPH-DRO), and TPH gasoline range organics (TPH-GRO) for comparison to the MDE non-residential cleanup standards (NRCS). Collected soil samples were placed on ice and transported to Caliber Analytical Services (Caliber) for analyses.

Analytical soil results reported a TPH-DRO concentration of 660 mg/kg at PX-Dis Valve (34”), which exceeds the NRCS of 620 mg/kg. All other contaminants of concern were reported below their respective NRCS or reported no-detectable concentrations for both of the soil samples. The TPH-DRO exceedance at PX-Dis Valve (34”) required additional delineation. Post-excavation soil sample locations and results are shown on **Figure 1**. Soil results are tabulated on **Table 1** and laboratory analytical reports are included in **Attachment 3**.

Supplemental Station Discharge Valve Soil Sample

Due to the TPH-DRO concentration of 660 mg/kg exceeding the NRCS of 620 mg/kg an additional sample was collected to attain vertical delineation of the NRCS. On September 30, 2021, Colonial collected one additional soil sample, PX-Dis Valve (42”), from 3.5 to 4.0-feet. Due to the location of the loop line immediately under the original PX-Dis Valve (34”) sample, the PX-Dis Valve (42”) sample was moved 1.5-feet to the northeast. The sample was collected via USEPA Method 5035 for analysis of VOCs including

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Subsurface Investigation Report – Aboveground Valve Release

fuel oxygenates and naphthalene, TPH-DRO, and TPH-GRO for comparison to the MDE NRCS. Collected soil samples were placed on ice and transported to Caliber for analyses.

Analytical results reported TPH-DRO at a concentration of 77 mg/kg, below the NRCS of 620 mg/kg. All other contaminants of concern were reported below their respective NRCS or reported no-detectable concentrations. These results confirm vertical delineation of soil impacts from the aboveground valve release.

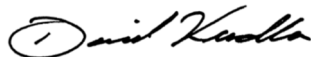
Conclusions

Results of the September 13, 2021 post-excavation soil samples confirm complete removal of impacted soils at the main line block valve and removal of all contaminants of concern with the exception of TPH-DRO at the Station discharge valve. Results of the September 20, 2021 soil sample confirm vertical delineation of soil impacts at the Station discharge valve. Initially, the intent was to excavate to the depth of the supplemental soil sample at the Station discharge valve to confirm complete removal of impacts. However, due this location being at the junction of the main line, loop line, and respective valves and equipment, and the minimal TPH-DRO concentration being left behind (40 mg/kg over the NRCS) it is not feasible to conduct additional excavation without risk to the pipeline infrastructure.

If you have questions regarding the SIR amendment, please contact Stan Carpenter at 856-381-4683 or me at 410-970-2150.

Sincerely,

TRC Environmental Corporation



David Kudla
Project Manager

Table 1 – Summary of Post Excavation Soil Analytical Results

Figure 1 – Above Ground Valve Release Excavation and Soil Sample Locations – September 2021

Attachment 1 – September 13, 2021 ROO

Attachment 2 – Soil Disposal Manifest

Attachment 3 – Laboratory Analytical Reports

cc: S. Bull – Maryland Department of the Environment
S. Carpenter – Colonial Pipeline Company
R. Shenk – Colonial Pipeline Company
T. Garvey – Colonial Pipeline Company

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TABLE 1

TABLE 1

Summary of Post-Excavation Soil Analytical Results - Aboveground Valve Release
Colonial Pipeline Company - Bel Air Pump Station

Parameter (mg/kg)	CAS No.	MD NRCS	Sample No.: PX-Valve 3 (33.5")		PX-Dis Valve (34")		PX-Dis Valve (42")	
			Sample Depth:	Date Sampled:	Result	LLQ	Result	LLQ
Dichlorodifluoromethane	75-71-8	--	ND	0.006	ND	0.005	ND	0.005
Chloromethane	74-87-3	46	ND	0.006	ND	0.005	ND	0.005
Vinyl Chloride	75-01-4	1.7	ND	0.006	ND	0.005	ND	0.005
Bromomethane	74-83-9	3.0	ND	0.006	ND	0.005	ND	0.005
Chloroethane	75-00-3	5,700	ND	0.006	ND	0.005	ND	0.005
Trichlorofluoromethane	75-69-4	--	ND	0.006	ND	0.005	ND	0.005
1,1-Dichloroethene	75-35-4	100	ND	0.006	ND	0.005	ND	0.005
1,1,2-Trichlorotrifluoroethane	76-13-1	--	ND	0.006	ND	0.005	ND	0.005
Acetone	67-64-1	67,000	ND	0.057	ND	0.054	ND	0.049
Carbon Disulfide	75-15-0	350	ND	0.011	ND	0.011	ND	0.010
Methyl Acetate	79-20-9	--	ND	0.028	ND	0.027	ND	0.025
Methylene chloride	75-09-2	320	ND	0.028	ND	0.027	ND	0.025
trans-1,2-Dichloroethene	156-60-5	2,300	ND	0.006	ND	0.005	ND	0.005
Methyl Tert Butyl Ether (MTBE)	1634-04-4	210	ND	0.006	ND	0.005	ND	0.005
1,1-Dichloroethane	75-34-3	16	ND	0.006	ND	0.005	ND	0.005
cis-1,2-Dichloroethene	156-59-2	230	ND	0.006	ND	0.005	ND	0.005
2-Butanone (MEK)	78-93-3	19,000	ND	0.057	ND	0.054	ND	0.049
Chloroform	67-66-3	1.4	ND	0.006	ND	0.005	ND	0.005
1,1,1-Trichloroethane	71-55-6	3,600	ND	0.006	ND	0.005	ND	0.005
Cyclohexane	110-82-7	--	ND	0.006	ND	0.005	ND	0.005
Carbon tetrachloride	56-23-5	2.9	ND	0.006	ND	0.005	ND	0.005
Benzene	71-43-2	5.1	ND	0.006	ND	0.005	ND	0.005
1,2-Dichloroethane	107-06-2	2	ND	0.006	ND	0.005	ND	0.005
Trichloroethene	79-01-6	1.9	ND	0.006	ND	0.005	ND	0.005
Methylcyclohexane	108-87-2	--	0.016	0.006	0.03	0.005	ND	0.005
1,2-Dichloropropane	78-87-5	6.6	ND	0.006	ND	0.005	ND	0.005
Bromodichloromethane	75-27-4	1.3	ND	0.006	ND	0.005	ND	0.005
cis-1,3-Dichloropropene	10061-01-5	--	ND	0.006	ND	0.005	ND	0.005
4-methyl-2-pentanone (MIBK)	108-10-1	14,000	ND	0.011	ND	0.011	ND	0.010
Toluene	108-88-3	4,700	ND	0.006	0.007	0.005	ND	0.005
trans-1,3-Dichloropropene	10061-02-6	--	ND	0.006	ND	0.005	ND	0.005
1,1,2-Trichloroethane	79-00-5	0.63	ND	0.006	ND	0.005	ND	0.005
Tetrachloroethene	127-18-4	39	ND	0.006	ND	0.005	ND	0.005
2-Hexanone (MBK)	591-78-6	--	ND	0.011	ND	0.011	ND	0.010
Dibromochloromethane	124-48-1	39	ND	0.006	ND	0.005	ND	0.005
1,2-Dibromoethane (EDB)	106-93-4	0.16	ND	0.006	ND	0.005	ND	0.005
Chlorobenzene	108-90-7	130	ND	0.006	ND	0.005	ND	0.005
Ethylbenzene	100-41-4	25	0.007	0.006	0.016	0.005	ND	0.005
m,p-Xylene	179601-23-1	--	0.036	0.011	0.20	0.011	ND	0.010
o-Xylene	95-47-6	--	0.028	0.006	0.18	0.005	ND	0.005
Xylenes (total)	1330-20-7	250	0.064	0.017	0.38	0.016	ND	0.015
Styrene	100-42-5	3,500	ND	0.006	ND	0.005	ND	0.005
Bromoform	75-25-2	86	ND	0.006	ND	0.005	ND	0.005
Isopropylbenzene	98-82-8	990	0.006	0.006	0.031	0.005	ND	0.005
1,1,2,2-Tetrachloroethane	79-34-5	2.7	ND	0.006	ND	0.005	ND	0.005
1,3,5-Trimethylbenzene	108-67-8	150	0.048	0.006	0.28	0.005	ND	0.005
1,3-Dichlorobenzene	541-73-1	--	ND	0.006	ND	0.005	ND	0.005
1,2,4-Trimethylbenzene	95-63-6	180	0.14	0.006	0.79	0.005	ND	0.005
1,4-Dichlorobenzene	106-46-7	11	ND	0.006	ND	0.005	ND	0.005
1,2-Dichlorobenzene	95-50-1	930	ND	0.006	ND	0.005	ND	0.005
1,2-Dibromo-3-chloropropane	96-12-8	0.064	ND	0.006	ND	0.005	ND	0.005
1,2,4-Trichlorobenzene	120-82-1	26	ND	0.006	ND	0.005	ND	0.005
Naphthalene	91-20-3	17	0.014	0.011	0.025	0.011	ND	0.010
tert-Butyl Ethyl Ether (ETBE)	637-92-3	--	ND	0.006	ND	0.005	ND	0.005
tert-Butyl Alcohol (TBA)	75-65-0	--	ND	0.028	ND	0.027	ND	0.025
Diisopropyl Ether (DIPE)	108-20-3	--	ND	0.006	ND	0.005	ND	0.005
tert-Amyl Methyl Ether (TAME)	994-05-8	--	ND	0.006	ND	0.005	ND	0.005
tert-Amyl Alcohol (TAA)	75-85-4	--	ND	0.028	ND	0.027	ND	0.025
tert-Amyl Ethyl Ether (TAEE)	919-94-8	--	ND	0.006	ND	0.005	ND	0.005
Parameter (mg/kg)	CAS No.	MD NRCS	Result	LLQ	Result	LLQ	Result	LLQ
Diesel Range Organics (DRO)	68476-30-2	620	230	12	660	12	77	12
Gasoline Range Organics (GRO)	8006-61-9	620	2.3	0.62	0.99	0.66	0.28	0.23

Values are reported in milligrams per kilogram (mg/kg)

NRCS = MDE Non-Residential Clean-up Standard

Yellow highlight indicates concentrations above the NRCS

LLQ = Lowest Level of Quantitation

ND = Not Detected above LLQ

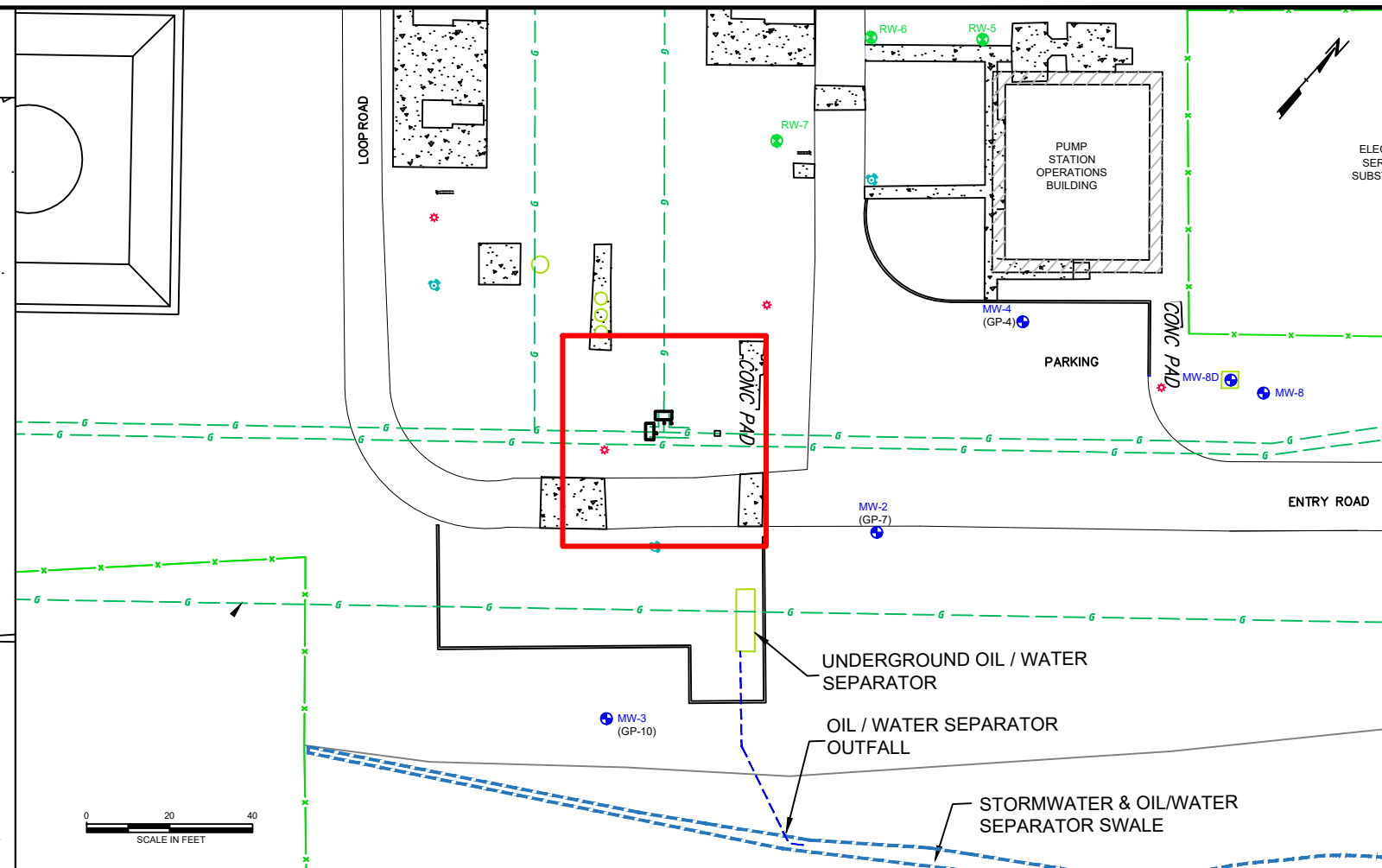
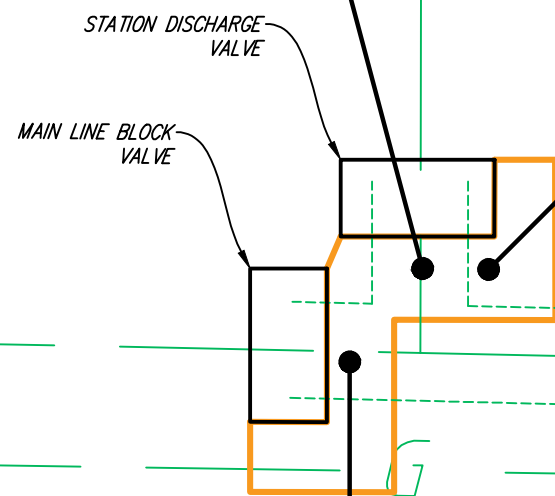
FIGURE 1

DRAWING NAME: \\philly-tp2\Projects\Colonial Pipeline\Bel Air Station & Spring\Figures\CADD\299980_ABOVEGROUND_VALVE_RELEASE.dwg -- PLOT DATE: October 19, 2021 - 4:09PM -- LAYOUT: SITE MAP 2021 (2)

PX-Dis Valve (34")		9/13/2021
		28" - 34"
Methyl Tert Butyl Ether (MTBE)		ND
Benzene		ND
Toluene		0.007
Ethylbenzene		0.016
Xylenes (total)		0.38
1,3,5-Trimethylbenzene		0.28
1,2,4-Trimethylbenzene		0.79
Naphthalene		0.025
Diesel Range Organics (DRO)		660
Gasoline Range Organics (GRO)		0.99

PX-Dis Valve (42")		9/30/2021
		42" - 48"
Methyl Tert Butyl Ether (MTBE)		ND
Benzene		ND
Toluene		ND
Ethylbenzene		ND
Xylenes (total)		ND
1,3,5-Trimethylbenzene		ND
1,2,4-Trimethylbenzene		ND
Naphthalene		ND
Diesel Range Organics (DRO)		77
Gasoline Range Organics (GRO)		0.28

PX-Valve 3 (33.5")		9/13/2021
		27.5" - 33.5"
Methyl Tert Butyl Ether (MTBE)		ND
Benzene		ND
Toluene		ND
Ethylbenzene		0.007
Xylenes (total)		0.064
1,3,5-Trimethylbenzene		0.048
1,2,4-Trimethylbenzene		0.14
Naphthalene		0.014
Diesel Range Organics (DRO)		230
Gasoline Range Organics (GRO)		2.3



- LEGEND**
- MW-5 MONITORING WELL
 - RW-2 RECOVERY WELL
 - PX-VALVE 3 SOIL SAMPLE LOCATION
 - * LIGHT POST
 - ⊕ HYDRANT
 - FENCE
 - OVERHEAD ELECTRIC LINE
 - G — UNDERGROUND MAIN LINE/LOOP LINE
 - APPROXIMATE 6-INCH DRAIN LINE LOCATION
 - - - APPROXIMATE MAIN LINE/LOOP LINE EXTENTS
 - APPROXIMATE UNIT 2 EXCAVATION EXTENTS

- NOTES:**
1. VALVE AND SHUTOFF VALVE LOCATIONS ARE SURVEYED GENERAL POINTS OF REFERENCE FOR PUMP STATION CONTROL POINTS AND PROCESS CONTROL FEATURES.
 2. ALL SOIL ANALYTICAL RESULTS REPORTED IN MG/KG
 3. SOIL ANALYTICAL RESULT IN YELLOW HIGHLIGHT INDICATES EXCEEDANCE OF MDE NRCS
 4. NRCS: NON-RESIDENTIAL CLEANUP STANDARD
 5. ND: CONCENTRATION NOT DETECTED ABOVE LLQ
 6. LLQ: LOWEST LEVEL OF QUANTITATION

Parameter (mg/kg)	MD NRCS
Methyl Tert Butyl Ether (MTBE)	210
Benzene	5.1
Toluene	4,700
Ethylbenzene	25
Xylenes (total)	250
1,3,5-Trimethylbenzene	150
1,2,4-Trimethylbenzene	180
Naphthalene	17
Diesel Range Organics (DRO)	620
Gasoline Range Organics (GRO)	620

PROJECT: COLONIAL PIPELINE COMPANY
BEL AIR PUMP STATION
FALLSTON, HARFORD COUNTY, MARYLAND

TITLE: ABOVEGROUND VALVE RELEASE
EXCAVATION AND SOIL SAMPLE LOCATIONS
SEPTEMBER 2021

DRAWN BY: D.KUDLA PROJ. NO.: 299980.0000.0000
CHECKED BY: D.KUDLA
APPROVED BY: D.CARLSON
DATE: OCTOBER 2021

FIGURE 1

1801 Market Street
Suite 1380
Philadelphia, PA 19103
Phone: 215.563.2122

TRC

FILE NO: 299980_QMR.DWG

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ATTACHMENT 1

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard, Suite 620 • Baltimore Maryland 21230-1719

(410) 537-3442 • 1-800-633-6101 • <http://www.mde.maryland.gov>

LAND AND MATERIALS ADMINISTRATION

OIL CONTROL PROGRAM

Report of Observations

Type of Inspection/Observations: Aboveground Valve Release	Date: Sept. 13, 2021
Site/Facility Name: Colonial Pipeline – Bel Air Pumping Station	Facility ID #: N/A
Address: 2942 Charles Street	Case #: 18-0459HA/ 21-0104HA
City / County: Fallston / Harford	Permit #:

Remarks:

This writer arrived on site and met with representatives of Colonial Pipeline and their environmental consultant (TRC) following an aboveground release from two adjacent discharge valves on 9/10/21. The yard drain line was disconnected and replaced over the past month. The 9/10/21 release occurred as a result of air trapped in the line when tying in the newly replaced drain line to the rest of the system. It was communicated to me that product was released from a nut/bolt on one discharge valve and from a seam on the other discharge valve (the one closer to the building). On Friday 9/10/21, the leak was stopped and absorbent boom/ pads were deployed on the valves and in the area surrounding the valves. No soils were excavated associated with this release prior to today. This writer observed light staining on the gravel around the one valve closer to the building. Prior to this date, for a reason unrelated to this release, soils were excavated in the area behind the valves to a depth of approximately 3 feet below ground surface (bgs). No product had been observed in that pit by Colonial staff/ contractors. On this date, TRC was onsite to oversee excavation of petroleum impacted soils and collection of post-excitation soil samples.

First, surface gravel was removed and soils were excavated by hand to a depth of approximately 6 inches bgs. Soils were field screened with a photo-ionization detector (PID). In general, the PID readings ranged from 30 to over 100, with a maximum of 300 units in one isolated spot. A hand auger was used to delineate the depth of impacts. Additional soils were excavated laterally ranging from 19 inches to 26 inches out from the valve equipment. Soils were excavated to a depth of approximately 2.5-3 feet bgs across the excavation, where PID readings decreased to values ranging from 8.9 to 16 units. Petroleum impacted soils were staged on plastic and covered with plastic. A total of two post-excitation soil samples were collected this date.

Also of note: The interim vacuum events were suspended during replacement of the drain line due to the amount of personnel and work that was ongoing in the vicinity. The interim vac events resumed today. Triumverate was onsite with a vac truck this date.

EA Engineering personnel were also on site this date monitoring the dewatering system. Water from the excavation is being pumped into frac tanks and through a weir system and then carbon units prior to being discharged at the containment pond. The discharge water is sampled on a bi-weekly basis (every other week).

No photographs were taken while on site at the request of Colonial Pipeline personnel.

Continued on page 2.

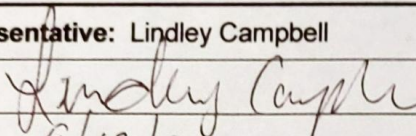
**MDE/LMA/OCP
Report of Observation**

Requirements to be performed based on the above observations:

- 1) Analyze all soil samples collected for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene, using EPA Method 8260 and for total petroleum hydrocarbons – diesel and gasoline range organics (TPH-DRO and TPH-GRO) using EPA Method 8015.
- 2) By no later than October 28, 2021, submit a *Report* to MDE summarizing the work performed during this mobilization. At a minimum, this *Report* must include detailed data summary tables and scaled site maps showing sampling locations, sampling procedures, analytical laboratory results and chain of custody, conclusions and recommendations, soil disposal totals and disposal receipts.

NOTES

- Report the following conditions to the Department immediately, but not later than 2 hours after the detection, at **410-537-3442** during normal business hours, or to the Emergency Response Division hotline at **1-866-633-4686**:
 - An oil spill or discharge
 - If a storage system fails a test for tightness,
 - A storage system is determined to be leaking,
 - There exists evidence of a discharge
 - Two consecutive inconclusive tests
 - Presence of liquid phase hydrocarbons
- Reports should not be made via voice messages to OCP case managers.
- Operating without a permit or in violation of a permit, regulation, or law may result in the assessment of civil or administrative penalties and or other legal sanctions.

MDE Representative: Lindley Campbell	Person Interviewed:
Signature: 	Signature:
Date: 9/13/21	Date:
MDE Representative:	Person Interviewed:
Signature:	Signature:
Date:	Date:

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ATTACHMENT 2

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name _____ Generator Site/Location Colonial / Bel Air Sta.
 Address _____ Address 2942 Charles St.
Falkston, MD 21047
 Phone No. _____ Phone No. 410-569-6200

Approval Number
05-1697

Description of Material
 Non-Regulated Petroleum
 Contaminated Soil
 Non DOT/RCRA Regulated

ID 208		
GROSS	34.49	GROSS
TARE	13.38	TARE
NET	21.11	NET
LOG	5	TONNAGE
09/22/2021		
09:12AM		

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Roger Blocker Generator Authorized Agent Name
Roger J. Blocker Signature
9-22-21 Shipment Date

TRANSPORTER

Transporter Name SIT Trucking Driver Name (Print) Sonny Garcia
 Address 3482 Wrangle Hill Rd Vehicle License No. / State / EPA No. 4117083 De
Bear De 19701 Truck Number 208

I hereby certify that the above named material was picked up at the generator site listed above.

I hereby certify that the above named material was delivered without incident to the destination listed below.

Sonny Garcia Driver Signature
9-22-21 Shipment Date
Sonny Garcia Driver Signature
9-22-21 Delivery Date

DESTINATION

Site Name Soil Safe, Inc. - Bridgeport Phone No. 1-856-467-8030

Address 378 Route 130 Logan Township, NJ 08085

No left turn on Rt. 130 North into the facility.
 Business hours are: Monday through Friday 7 AM to 5 PM. 5 PM to 10 PM By Appointment only. Saturday by appointment only.

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

d Garcia Name of Authorized Agent
9-22-21 Signature
9-22-21 Receipt Date

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ATTACHMENT 3



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 09/13/21 10:55
Date Received: 09/13/21 13:02
Date Issued: 09/20/21

Project: Bel Air
Site Location: Bel Air, MD

SDG Number: 21091301

Field Sample ID:	PX- Valve 3(33.5")	Matrix:	Soil	Lab ID:	21091301-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							Batch: 25602
Percent Solids	86	%		SM2540G	09/14/21	09/15/21 12:07	DBS
Target Compound List - VOLATILES							Batch: 25606
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Acetone	ND	ug/kg	57	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Methyl acetate	ND	ug/kg	28	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Methylene chloride	ND	ug/kg	28	EPA 8260B	09/20/21	09/20/21 12:33	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
2-Butanone (MEK)	ND	ug/kg	57	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Benzene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,2-Dichloroethane (EDC)	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Methylcyclohexane	16	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Toluene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,2-Dibromoethane (EDB)	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Ethylbenzene	7	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
m&p-Xylene	36	ug/kg	11	EPA 8260B	09/20/21	09/20/21 12:33	GFH
o-Xylene	28	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 09/13/21 10:55
Date Received: 09/13/21 13:02
Date Issued: 09/20/21

Project: Bel Air
Site Location: Bel Air, MD

SDG Number: 21091301

Field Sample ID: PX- Valve 3(33.5") Matrix: Soil Lab ID: 21091301-01

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
							Batch: 25606
Styrene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Isopropylbenzene	6	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,3,5-Trimethylbenzene	48	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,2,4-Trimethylbenzene	140	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Naphthalene	14	ug/kg	11	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
tert-Butanol (TBA)	ND	ug/kg	28	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	28	EPA 8260B	09/20/21	09/20/21 12:33	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	6	EPA 8260B	09/20/21	09/20/21 12:33	GFH
Total Petroleum Hydrocarbons - (C10-C28) DRO							
							Batch: 25608
Diesel Range Organics	230	mg/kg	12	EPA 8015C	09/16/21	09/20/21 10:47	DBS
Total Petroleum Hydrocarbons - (C6-C10) GRO							
							Batch: 25604
Gasoline Range Organics	2.3	mg/kg	0.62	EPA 8015C	09/15/21	09/15/21 15:41	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 09/13/21 10:57
Date Received: 09/13/21 13:02
Date Issued: 09/20/21

Project: Bel Air
Site Location: Bel Air, MD

SDG Number: 21091301

Field Sample ID: PX- Dis Valve(34") Matrix: Soil Lab ID: 21091301-02

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Percent Solids							Batch: 25602
Percent Solids	85	%		SM2540G	09/14/21	09/15/21 12:07	DBS

Target Compound List - VOLATILES Batch: 25606

Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Acetone	ND	ug/kg	54	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Methyl acetate	ND	ug/kg	27	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Methylene chloride	ND	ug/kg	27	EPA 8260B	09/20/21	09/20/21 13:35	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
2-Butanone (MEK)	ND	ug/kg	54	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Benzene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,2-Dichloroethane (EDC)	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Methylcyclohexane	30	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Toluene	7	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,2-Dibromoethane (EDB)	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Ethylbenzene	16	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
m&p-Xylene	200	ug/kg	11	EPA 8260B	09/20/21	09/20/21 13:35	GFH
o-Xylene	180	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 09/13/21 10:57
Date Received: 09/13/21 13:02
Date Issued: 09/20/21

Project: Bel Air
Site Location: Bel Air, MD

SDG Number: 21091301

Field Sample ID: PX- Dis Valve(34") Matrix: Soil Lab ID: 21091301-02

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
							Batch: 25606
Styrene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Bromoform	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Isopropylbenzene	31	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,3,5-Trimethylbenzene	280	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,2,4-Trimethylbenzene	790	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Naphthalene	25	ug/kg	11	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
tert-Butanol (TBA)	ND	ug/kg	27	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	27	EPA 8260B	09/20/21	09/20/21 13:35	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	5	EPA 8260B	09/20/21	09/20/21 13:35	GFH
Total Petroleum Hydrocarbons - (C10-C28) DRO							
							Batch: 25608
Diesel Range Organics	660	mg/kg	12	EPA 8015C	09/16/21	09/20/21 10:47	DBS
Total Petroleum Hydrocarbons - (C6-C10) GRO							
							Batch: 25604
Gasoline Range Organics	0.99	mg/kg	0.66	EPA 8015C	09/15/21	09/15/21 16:10	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



CALIBER ANALYTICAL SERVICES

VOLATILES

SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 25606

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
PX- Valve 3(33.5") / 21091301-01	9/20/2021 12:33:00 PM	111	104	101
PX- Dis Valve(34") / 21091301-02	9/20/2021 1:35:00 PM	110	108	101
	Upper Limit	120	120	120
	Lower Limit	85	85	85

* - Indicates values outside of QC control limits.



CALIBER ANALYTICAL SERVICES

VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 25606
 MATRIX: SOIL INSTRUMENT: VOC1
 SAMPLE ID: LCS
 DATE ANALYZED: 9/17/2021 4:06:00 PM
 LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	25	NA	24.3	97	62 - 140
BENZENE	25	NA	22.2	89	69 - 127
CARBON TETRACHLORIDE	25	NA	21.1	84	72 - 126
CHLOROBENZENE	25	NA	21.4	86	73 - 108
CHLOROFORM	25	NA	23.0	92	65 - 135
M&P-XYLENE	50	NA	46.3	93	67 - 121
METHYL T-BUTYL ETHER (MTBE)	25	NA	24.1	96	77 - 139
TETRACHLOROETHENE	25	NA	23.6	94	70 - 114
TOLUENE	25	NA	23.3	93	68 - 127
TRICHLOROETHENE	25	NA	22.0	88	68 - 117
VINYL CHLORIDE	25	NA	24.8	99	72 - 134

* - Indicates values outside of QC control limits.

Calculations: %Recovery = $\left[\frac{(\text{Spike Conc.} - \text{Sample Conc.})}{\text{Spike Added}} \right] * 100$

$$\text{Relative Percent Difference (RPD)} = \left| \frac{(\text{Spike Dup Conc.} - \text{Spike Conc.})}{\left(\frac{(\text{Spike Dup Conc.} + \text{Spike Conc.})}{2} \right)} \right| * 100$$



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: Volatiles
Matrix: Soil

Batch ID: 25606
Batch Date: 9/15/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Chloromethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Bromomethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Chloroethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Acetone	ND	ug/kg	EPA 8260B	50.0	09/17/21 16:40
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	09/17/21 16:40
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	09/17/21 16:40
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	09/17/21 16:40
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	09/17/21 16:40
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Benzene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,2-Dichloroethane (EDC)	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	09/17/21 16:40
TOLUENE	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	09/17/21 16:40
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,2-Dibromoethane (EDB)	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: Volatiles
Matrix: Soil

Batch ID: 25606
Batch Date: 9/15/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	09/17/21 16:40
o-Xylene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Styrene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Bromoform	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,3,5-Trimethylbenzene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,2,4-Trimethylbenzene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
Naphthalene	ND	ug/kg	EPA 8260B	10.0	09/17/21 16:40
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	09/17/21 16:40
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	09/17/21 16:40
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	09/17/21 16:40

Notes/Comments:

LLQ - Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.



CALIBER ANALYTICAL SERVICES

GRO

SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8015C

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 25604

Sample ID	Date/Time Analyzed	TFT
PX- Valve 3(33.5") / 21091301-01	9/15/2021 3:41:00 PM	105
PX- Dis Valve(34") / 21091301-02	9/15/2021 4:10:00 PM	112

Upper Limit	125
Lower Limit	50

* - Indicates values outside of QC control limits.



CALIBER ANALYTICAL SERVICES

GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 25604
 MATRIX: SOIL INSTRUMENT: VOC-PID/FID
 SAMPLE ID: LCS
 DATE ANALYZED: 9/15/2021 11:55:00 AM
 LAB FILE IDs: 03.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	4799.0	87	75 - 125

* - Indicates values outside of QC control limits.

Calculations: %Recovery = $\left[\frac{(Spike\ Conc. - Sample\ Conc.)}{Spike\ Added} \right] * 100$

$$Relative\ Percent\ Difference\ (RPD) = \left| \frac{(Spike\ Dup\ Conc. - Spike\ Conc.)}{\left(\frac{(Spike\ Dup\ Conc. + Spike\ Conc.)}{2} \right)} \right| * 100$$



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: GRO
Matrix: Soil

Batch ID: 25604
Batch Date: 9/15/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
Gasoline Range Organics	ND	mg/L	EPA 8015C	0.2	09/15/21 12:24

Notes/Comments:

LLQ - Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.



CALIBER ANALYTICAL SERVICES

DRO

SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8015C

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 25608

Sample ID	Date/Time Analyzed	o-Terphenyl
PX- Valve 3(33.5") / 21091301-01	9/20/2021 10:47:00 AM	102
PX- Dis Valve(34") / 21091301-02	9/20/2021 10:47:00 AM	100

Upper Limit	126
Lower Limit	46

* - Indicates values outside of QC control limits.



CALIBER ANALYTICAL SERVICES

DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 25608
 MATRIX: SOIL INSTRUMENT: DRO1
 SAMPLE ID: LCS
 DATE ANALYZED: 9/20/2021 10:05:00 AM
 LAB FILE IDs: 04.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPIKE CONC (mg/L)	SPIKE REC (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	NA	504.8	99	60 - 120

* - Indicates values outside of QC control limits.

Calculations: %Recovery = $\left[\frac{(Spike\ Conc. - Sample\ Conc.)}{Spike\ Added} \right] * 100$

$$Relative\ Percent\ Difference\ (RPD) = \left| \frac{(Spike\ Dup\ Conc. - Spike\ Conc.)}{\left(\frac{(Spike\ Dup\ Conc. + Spike\ Conc.)}{2} \right)} \right| * 100$$



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: DRO
Matrix: Soil

Batch ID: 25608
Batch Date: 9/16/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	09/20/21 10:05

Notes/Comments:

LLQ - Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 09/30/21 10:30
Date Received: 09/30/21 11:27
Date Issued: 10/07/21

Project: Bel Air Station
Site Location: Valve Excavation

SDG Number: 21093003

Field Sample ID: Dis-valve (42") Matrix: Soil Lab ID: 21093003-01

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
							Batch: 25664
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Acetone	ND	ug/kg	49	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Methyl acetate	ND	ug/kg	25	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Methylene chloride	ND	ug/kg	25	EPA 8260B	10/01/21	10/04/21 20:08	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
2-Butanone (MEK)	ND	ug/kg	49	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Benzene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,2-Dichloroethane (EDC)	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Toluene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,2-Dibromoethane (EDB)	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Ethylbenzene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
m&p-Xylene	ND	ug/kg	10	EPA 8260B	10/01/21	10/04/21 20:08	GFH
o-Xylene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Styrene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Bromoform	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH



CALIBER ANALYTICAL SERVICES

Certificate of Analysis

Colonial Pipeline Co.
929 Hoods Mill Rd.
Woodbine, MD 21797

Date Sampled: 09/30/21 10:30
Date Received: 09/30/21 11:27
Date Issued: 10/07/21

Project: Bel Air Station
Site Location: Valve Excavation

SDG Number: 21093003

Field Sample ID: Dis-valve (42") Matrix: Soil Lab ID: 21093003-01

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
Target Compound List - VOLATILES							
							Batch: 25664
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,3,5-Trimethylbenzene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,2,4-Trimethylbenzene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Naphthalene	ND	ug/kg	10	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
tert-Butanol (TBA)	ND	ug/kg	25	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	25	EPA 8260B	10/01/21	10/04/21 20:08	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	5	EPA 8260B	10/01/21	10/04/21 20:08	GFH
Total Petroleum Hydrocarbons - (C10-C28) DRO							
							Batch: 25658
Diesel Range Organics	77	mg/kg	12	EPA 8015C	09/30/21	10/01/21 18:37	DBS
Total Petroleum Hydrocarbons - (C6-C10) GRO							
							Batch: 25666
Gasoline Range Organics	0.28	mg/kg	0.23	EPA 8015C	10/04/21	10/04/21 17:47	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation
ND - Not Detected at a concentration greater than or equal to the LLQ.
Results reported on a dry weight basis.

Approved by:

QC Chemist



Chain of Custody Record

Customer:	Colonial Pipeline Co.
Contact/Report to:	Rob Shenk
Phone:	
Fax:	

E-mail address:	Rshenk@colpipe.com
Project Name:	Bel Air Station
Project Location:	Valve Excavation
Project Number:	

SDG Number:	21093003
Sampled by:	N. Kash
PO Number:	

Analysis Requested

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix *	Preservative:												Date/Time:	Sampling Remarks/ Comments
						Field	Lab												
						VOC + Fuel Oil + NAPTH													
						DEO/CMO													
	Dis-valve (42")	9-30-21	1030	3	S	X	X										2		
	Dis-Valve (51")	1	1035	3	1	X	X										2 HOLD		

Relinquished by:	<i>[Signature]</i>	Date/Time:	9-30-21 / 1127	Deliverables:	Receipt Temp (°C):	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	9/30/21 / 11-27	I II III CLP EDD	On Ice, N/A Same Day STD	Next Day 2-Day Other
Relinquished by:		Date/Time:	/	Custody Seals:	Comments/Special Instructions:	
Received by:		Date/Time:	/	Sample Cooler		
Relinquished by:		Date/Time:	/	Delivered by client		
Received by:		Date/Time:	/	CAS Courier		

* DW = Drinking Water | GW = Groundwater | W = Water | WW = Wastewater | SED = Sediment | S = Soil | SL = Sludge | O = Oil / Fuel



CALIBER ANALYTICAL SERVICES

VOLATILES

SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 25664

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
Dis-valve (42") / 21093003-01	10/4/2021 8:08:00 PM	105	123	105
	Upper Limit	125	125	125
	Lower Limit	85	85	85

* - Indicates values outside of QC control limits.



CALIBER ANALYTICAL SERVICES

VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 25664
 MATRIX: SOIL INSTRUMENT: VOC1
 SAMPLE ID: LCS
 DATE ANALYZED: 10/4/2021 4:45:00 PM
 LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	25	NA	27.9	112	62 - 140
BENZENE	25	NA	26.8	107	69 - 127
CARBON TETRACHLORIDE	25	NA	25.5	102	72 - 126
CHLOROBENZENE	25	NA	25.0	100	73 - 108
CHLOROFORM	25	NA	28.6	114	65 - 135
DIBROMOCHLOROMETHANE	25	NA	21.3	85	68 - 118
M&P-XYLENE	50	NA	54.9	110	67 - 121
METHYL T-BUTYL ETHER (MTBE)	25	NA	28.5	114	77 - 139
TOLUENE	25	NA	28.6	114	68 - 127
TRICHLOROETHENE	25	NA	26.7	107	68 - 117
VINYL CHLORIDE	25	NA	29.3	117	72 - 134

* - Indicates values outside of QC control limits.

Calculations: %Recovery = $\left[\frac{(\text{Spike Conc.} - \text{Sample Conc.})}{\text{Spike Added}} \right] * 100$

$$\text{Relative Percent Difference (RPD)} = \left| \frac{(\text{Spike Dup Conc.} - \text{Spike Conc.})}{\left(\frac{(\text{Spike Dup Conc.} + \text{Spike Conc.})}{2} \right)} \right| * 100$$



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: Volatiles
Matrix: Soil

Batch ID: 25664
Batch Date: 10/1/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Chloromethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Bromomethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Chloroethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Acetone	ND	ug/kg	EPA 8260B	50.0	10/04/21 17:19
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	10/04/21 17:19
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	10/04/21 17:19
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	10/04/21 17:19
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	10/04/21 17:19
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Benzene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,2-Dichloroethane (EDC)	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	10/04/21 17:19
TOLUENE	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	10/04/21 17:19
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,2-Dibromoethane (EDB)	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: Volatiles
Matrix: Soil

Batch ID: 25664
Batch Date: 10/1/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	10/04/21 17:19
o-Xylene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Styrene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Bromoform	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,3,5-Trimethylbenzene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,2,4-Trimethylbenzene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,2-Dibromo-3-chloropropane (DBCP)	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
Naphthalene	ND	ug/kg	EPA 8260B	10.0	10/04/21 17:19
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	10/04/21 17:19
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	10/04/21 17:19
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	10/04/21 17:19

Notes/Comments:

LLQ - Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.



CALIBER ANALYTICAL SERVICES

GRO

SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8015C

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 25666

Sample ID	Date/Time Analyzed	TFT
Dis-valve (42") / 21093003-01	10/4/2021 5:47:00 PM	127
	Upper Limit	130
	Lower Limit	50

* - Indicates values outside of QC control limits.



CALIBER ANALYTICAL SERVICES

GRO

LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 25666
 MATRIX: SOIL INSTRUMENT: VOC-PID/FID
 SAMPLE ID: LCS
 DATE ANALYZED: 10/4/2021 12:34:00 PM
 LAB FILE IDs: 03.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	4834.3	88	75 - 125

* - Indicates values outside of QC control limits.

Calculations: %Recovery = $\left[\frac{(Spike\ Conc. - Sample\ Conc.)}{Spike\ Added} \right] * 100$

$$Relative\ Percent\ Difference\ (RPD) = \left| \frac{(Spike\ Dup\ Conc. - Spike\ Conc.)}{\left(\frac{(Spike\ Dup\ Conc. + Spike\ Conc.)}{2} \right)} \right| * 100$$



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: GRO
Matrix: Soil

Batch ID: 25666
Batch Date: 10/4/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	10/04/21 13:02

Notes/Comments:

LLQ - Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.



CALIBER ANALYTICAL SERVICES

DRO

SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8015C

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 25658

Sample ID	Date/Time Analyzed	o-Terphenyl
Dis-valve (42") / 21093003-01	10/1/2021 6:37:00 PM	106
	Upper Limit	126
	Lower Limit	46

* - Indicates values outside of QC control limits.



CALIBER ANALYTICAL SERVICES

DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 25658
 MATRIX: SOIL INSTRUMENT: DRO1
 SAMPLE ID: LCS
 DATE ANALYZED: 10/1/2021 4:26:00 PM
 LAB FILE IDs: 04.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPIKE CONC (mg/L)	SPIKE REC (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	NA	517.0	101	60 - 120

* - Indicates values outside of QC control limits.

Calculations: %Recovery = $\left[\frac{(Spike\ Conc. - Sample\ Conc.)}{Spike\ Added} \right] * 100$

$$Relative\ Percent\ Difference\ (RPD) = \left| \frac{(Spike\ Dup\ Conc. - Spike\ Conc.)}{\left(\frac{(Spike\ Dup\ Conc. + Spike\ Conc.)}{2} \right)} \right| * 100$$



CALIBER ANALYTICAL SERVICES

METHOD BLANK RESULTS

Analysis: DRO
Matrix: Soil

Batch ID: 25658
Batch Date: 9/30/2021

	Result	Unit	Method	LLQ	Date / Time Analyzed
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	10/01/21 16:26

Notes/Comments:

LLQ - Lowest Level of Quantitation

ND - Not Detected at a concentration greater than or equal to the LLQ.