



# Colonial Pipeline Company

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June 12, 2018

Sent Via Federal Express

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Oil Control Program – Remediation Division  
1800 Washington Blvd., Suite 620  
Baltimore, MD 21230-1720

Re: Bel Air Station, Harford County, Maryland  
MDE Case No. 18-0459HA  
Subsurface Investigation Report

Ms. Bull:

As requested by the Maryland Department of Environment (MDE) in a Report of Observation dated March 12, 2018, and in a letter dated May 15, 2018, attached is the Subsurface Investigation Report (SIR) that summarizes activities conducted at the Colonial Pipeline Company (Colonial) Bel Air Station in response to the release of petroleum products reported on March 7, 2018. In email dated May 23, 2018, the MDE granted an extension to submit the SIR on June 12, 2018.

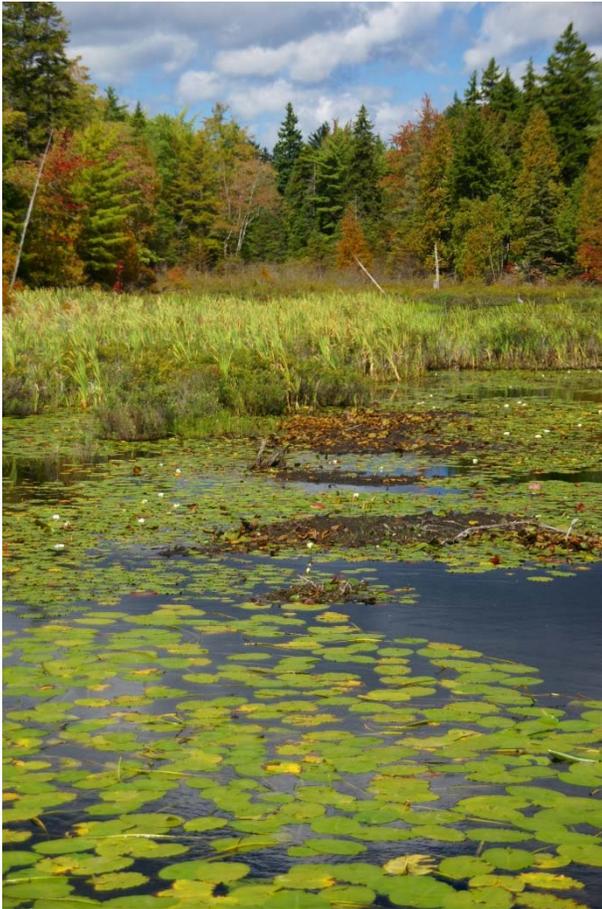
If you have questions regarding the SIR, please contact Stan Carpenter at 856-381-4683 or me at 410-970-2150.

Sincerely,

Frank Gallo  
Baltimore Area Operations Manager

Attachment

cc: S. Carpenter – Colonial Pipeline Company  
R. Shenk – Colonial Pipeline Company



**2942 Charles Street  
Fallston, Harford County, Maryland**

June 12, 2018

# Subsurface Investigation Report

Colonial Pipeline Company  
Bel Air Pump Station  
MDE Case No. 18-0459HA

**Prepared For:**



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## ACRONYM LIST

<b>AMSL</b>	Above Mean Sea Level
<b>BGS</b>	Below Ground Surface
<b>CDP</b>	Census-Designated Place
<b>CSM</b>	Conceptual Site Model
<b>DNR</b>	Department of Natural Resources
<b>FEMA</b>	Federal Emergency Management Agency
<b>HA</b>	Hand Auger
<b>HDD</b>	Horizontal Directional Drill(ing)
<b>IMP</b>	Integrity Management Program
<b>LNAPL</b>	Light Non-Aqueous Phase Liquid
<b>LSD</b>	Low Sulfur Diesel
<b>MDE</b>	Maryland Department of Environment
<b>MDSPGP</b>	Maryland State Programmatic General Permit
<b>mg/kg</b>	Milligram Per Kilogram
<b>NPDWS</b>	National Priority Drinking Water Standard
<b>NRCS</b>	Non-Residential Cleanup Standard
<b>PID</b>	Photoionization Detector
<b>PPM</b>	Part(s) Per Million
<b>RCS</b>	Residential Cleanup Standard
<b>ROO</b>	Report of Observation
<b>ROW</b>	Right of Way
<b>TP</b>	Test Pit
<b>TPH-DRO</b>	Total Petroleum Hydrocarbons Diesel Range Organics
<b>TPH-GRO</b>	Total Petroleum Hydrocarbons Gasoline Range Organics
<b>ULSD</b>	Ultra-Low Sulfur Diesel
<b>USACE</b>	United States Army Corps of Engineers
<b>USEPA</b>	United States Environmental Protection Agency
<b>USGS</b>	United State Geological Survey
<b>VOC</b>	Volatile Organic Compound
<b>WBWR</b>	West Branch Winters Run
<b>µg/L</b>	Microgram Per Liter

## 1.0 INTRODUCTION

The Maryland Department of Environment (MDE), in a Report of Observations (ROO) dated March 12, 2018, and in a letter dated May 15, 2018, directed Colonial Pipeline Company (Colonial) to submit a detailed **Subsurface Investigation Report** that summarizes the investigative activities conducted at the Colonial Pipeline Company (Colonial) Bel Air Station (the Site) in response to a release of distillate petroleum products reported on March 7, 2018 (MDE Case No. 18-0459HA). The Site is a pump (or booster) station used to modulate pressure and flow rates on the main interstate pipeline and is located at 2942 Charles Street in Fallston, Maryland (**Figure 1**). In the letter dated May 15, 2018, MDE directed that the report include, at a minimum:

*“a detailed accounting of the release and the steps of the post-release investigation and recovery process; data summary tables (including fuel oxygenates and naphthalene) and scaled site maps showing actual sampling locations (i.e., soil boring/monitoring well locations); any dissolved and liquid phase hydrocarbon thicknesses encountered should also be depicted on maps encountered. Qualitative and/or quantitative discussions should be presented, including recommendations for further actions (additional characterization and remedial options.”*

The purpose of this report is to comply with MDE’s directive. TRC Environmental Corporation (TRC) has prepared this Site Investigation Report on behalf of Colonial.

### 1.1 Background

On March 7, 2018, Colonial personnel conducted a routine Site visit as part of the weekly facility inspection program. Upon arrival in the operation area of the Site, the operator noticed a petroleum odor and began an inspection of the pump station yard. The operator observed light non-aqueous phase liquid phase (LNAPL) in the pipeline system valve observation access wells. The valve observation access wells are shallow (generally less than three feet deep) and encased by plastic pipe covered by lids. Their purpose is to allow for access to and routine inspection of subsurface valves and controls associated with the pumping station. The operator immediately contacted the Colonial Control Center to isolate the pump station loop from the mainline system. The MDE and Harford County were contacted, and emergency response actions were initiated. The mainline (Line 03) was shut down thereafter, and upstream and downstream pipeline flow block valves were closed. The release was later determined to be a mix of distillate products (kerosene and diesel).

An oil spill response organization (OSRO) and a pipeline maintenance and repair contractor, respectively, were mobilized to the Site, and crews initially worked in shifts to cover 24-hour operating periods. The Harford County Hazmat Response Team was also activated. Continuous air monitoring was conducted in an effort to ensure vapor emissions from site work were below health-based limits. Initial Site assessment observations indicated that released LNAPL had entered the facility stormwater yard drain system and preferentially moved to the valve observation access wells, the oil/water separator (OWS), and secondary containment (stormwater) pond.

Facility containment actions included closing the secondary containment pond discharge line valve, installation of absorbent boom across the secondary containment pond, and placement of plumber’s plugs and/or caps on the discharge lines below the pond outfall. The water level in the secondary

containment pond, however, was below the pond discharge elevation. There was no evidence of water or LNAPL discharge from the pond.

Removal actions included the use of vacuum trucks and vacuum tankers to evacuate LNAPL from the secondary containment pond, the facility oil/water separator, valve observation access wells, the facility stormwater yard drain lines, and sequentially from isolated areas of LNAPL puddling in the remedial excavation areas. LNAPL recovered from the above-referenced areas appeared to have a black-colored tint. As LNAPL was recovered from each valve observation access port, the access ports were monitored for rebounding LNAPL thickness. Based on LNAPL recovery field observations, excavation was initiated near the intersection of the main line (Line 03) and the pumping station product piping loop, where LNAPL appeared to recover more rapidly than in other areas. Petroleum-impacted soil and the stormwater yard drain bedding material was excavated and staged on plastic and covered by plastic in a bermed containment area pending off-site disposal. During subsequent subsurface excavation and investigation, a leak was discovered on the 20-inch alternate discharge line on the pumping station loop in the early morning of March 8, 2018. Upon discovery of the leak, secondary containment was placed under the leak point to prevent further discharge of LNAPL. The pipeline was repaired in accordance with approved procedures, and the pipeline was returned to service on the evening of March 8, 2018. The excavation area and repair have remained open for inspection as part of the ongoing Phase II Site maintenance activities (see below), and the integrity of the repair has been monitored and visually confirmed.

Following the repair and response activities, a subsurface investigation was initiated. To date, the subsurface investigation has proceeded in two phases.

Phase I focused on investigating and remediating the stormwater yard drain system, the valve observation access wells, and the stormwater swale between the OWS and the pond. In addition, an “outside-in” approach was taken to investigate the potential for the main line and the parallel stub line (i.e., 30-inch diameter, Line 03, and 8-inch diameter, Line 36, respectively) that traverse the Site as potential preferential migration pathways, to characterize the subsurface hydrogeology for development of a conceptual site model (CSM), and to ascertain the extent of the residual petroleum material. Borings were initially completed away and/or in the inferred upgradient direction from the release area and then in the downgradient direction to define the subsurface stratigraphy, identify the presence and depth of an upper-water zone, and to log potential low permeability layers that would impede the downward migration of LNAPL outside of potentially impacted areas.

Phase II focused on inspection of the portions of Line 03 and Line 36 located upgradient and downgradient flow directions from the leak location and the pumping station loop to identify the potential impacts to pipeline protective coating from contact with LNAPL. The Phase II work also provided insight to the extents of LNAPL migration.

## **1.2 Phase I**

On March 8, TRC mobilized to the Site to begin the Phase I investigation. As described in Section 4 and Section 5, the Phase I activities extended into April 2018 and included:

- Advancement of 17 borings to a depth of 10 feet or less with a hand auger;

- Installation of 10 borings with a direct push technology (Geoprobe) rig with soil logging to depths ranging from approximately 7 to 24 feet;<sup>1</sup>
- Collection of 11 soil samples from the Geoprobe soil borings;
- Collection of 84 post-excavation soil samples from the yard drain, valve observation access wells, and OWS to pond stormwater drainage swale excavations;
- Collection of four (4) sediment samples from the stormwater retention pond for laboratory analysis;
- Sampling and gauging of six (6) on-Site monitoring wells installed in the upper water-bearing zone;
- Collection of a water sample from the on-Site supply (station) well;
- Collection of 10 water samples from off-Site residential wells; and
- Collection of three (3) surface water samples: one (1) each from the drainage swale located on the northeast side of the Site and downgradient from the secondary containment pond outfall, and two (2) from West Branch Winters Run (WBWR) at the Colonial crossing located off Site to the north.

The MDE was present during phases of the investigative activities, provided feedback and direction for the Site work, and prepared the ROO dated March 12, 2018.

### 1.3 Phase II

At the end of the Phase I activities, Phase II was initiated to evaluate the integrity of the coating on the pipeline and related components in early April 2018. Given the proximity to the pipelines and related controls, the Phase II work was completed through hand excavation. Impacted coating was cleaned, the pipeline and appurtenances sandblasted, and the coating restored in accordance with approved procedures. During the process, side walls were shored for safety purposes, and soil was removed for off-site disposal. Pipeline coating that was identified for removal and replacement was located approximately 60 feet in both the north and south directions from the leak point. Given the heavy precipitation during the Phase II period, water from the excavation was regularly pumped to an on-Site fractionation (frac) tank for off-Site disposal. An additional 13 post-excavation soil samples were collected during Phase II.

MDE was also present during this phase of the investigative activities, observed the efforts, and prepared the ROO dated April 4, 2018.

### 1.4 Report Outline

The MDE's Reports of Observations produced during March and April 2018 Site visits by the MDE are included as **Appendix A**. Public Notifications are included as **Appendix B**; the Colonial Spill Report (dated March 21, 2018) is included as **Appendix C**; laboratory analytical reports are included as **Appendix D**, soil boring and monitoring well logs and permits are included in **Appendix E** and **Appendix F**, respectively; and the residential well public record search summary is included as **Appendix G**. Disposal documentation is provided in **Appendix H**.

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<sup>1</sup> The letter report from Colonial to the MDE dated March 21, 2018 incorrectly cited the completion of 11 Geoprobe borings.

This Subsurface Investigation Report presents evaluations of the investigative work and addresses the following issues:

- Source of contamination;
- Site geologic and hydrogeologic characteristics;
- Nature and extent of petroleum impacts; and
- Potential exposure pathways/sensitive receptors.

Sources of data that were used in developing the Subsurface Investigation Report include the following:

- Installation of hand auger borings, Geoprobe borings, and monitoring wells;
- Evaluation of analytical parameters for soil, pond sediment, groundwater, and surface water;
- General review of geologic maps and literature;
- Review of historical, Site-specific topographic maps showing the pre-construction topography;
- Evaluation of LNAPL; and
- Review of nearby sensitive receptors and potential contaminant migratory pathways.

In addition, the extensive interim remedial measures (IRM) completed at the Site are also outlined herein, including:

- The off-site recycling of approximately 936 tons of petroleum-impacted soil through May 16, 2018. Excavation of soil for off-site recycling is ongoing;
- The off-site recycling of 114,166 gallons of LNAPL and petroleum contact water (PCW) evacuated from the pond and the Phase I and II excavations through May 23, 2018. Evacuation of water for off-site recycling is ongoing;
- Replacement of over 300 feet of the polyvinyl chloride (PVC) piping and stone ballast in the main yard drains and laterals; and
- The installation of over 90 linear feet of high density polyethylene (HDPE) geomembrane liner in the stormwater swale between the OWS outfall and the retention pond.

## 2.0 SITE DESCRIPTION

### 2.1 Site Setting

The Site is located on the United States Geological Survey (USGS) Jarrettsville, Maryland Topographic Quadrangle Map near 39.563758 North latitude, and 76.478624 West longitude in Harford County, Maryland. The Site is located approximately 10 miles to the northwest of Bel Air, Maryland. Site elevations range from 429 feet above mean seal level (AMSL) near Charles Street to approximately 519 feet AMSL on the southwest side of the Site. The Site is depicted on **Figure 1**, showing the location, land use, and topography.

### 2.2 Site Description

The 2942 Charles Street property is comprised of one parcel of land that totals approximately 16.08 acres in size and is located within Fallston (a census-designated place [CDP]) in Harford County, Maryland. The legal identifier for the property as provided by the Maryland Department of Assessments and Taxation is Map 39, Grid 002B, Parcel 0401, and Tax Identification 04012054. According to the Harford County GIS mapping system, the Site is zoned for commercial use. As detailed in Section 6.0, the booster station is constructed on made land that filled an existing natural topographic draw.

The Site was constructed to serve as a booster (or pumping) station for Colonial's Line 03 in the mid-1960s. The majority of the Site is undeveloped land covered by mowed grass and trees. Access to the operations portion of the Site is along an approximately 500-foot long driveway extending uphill and to the southwest from Charles Street. The approximately 2.5-acre operations area is surrounded by a chain link fence and contains an Operations Building, an electrical substation, three (3) aboveground pipeline booster pumps (Units 1 through 3), and an aboveground pressure relief tank. In addition, the pipeline booster station includes both aboveground and underground piping, controls, and related equipment. The steel pipelines are coated with a protective material and also have cathodic protection. The booster station pumps are used to move the product through the pipeline at a desired flow rate and pressure. Aerial Site plans detailing current and pre-development topography are provided as **Figure 2** and **Figure 3**, respectively. A Site Plan detailing the Site infrastructure and layout is provided as **Figure 5**.

The pipeline right of way (ROW) extends through the Site from the southwest to northeast. The ROW is occupied by Colonial's mainline Line 03, a 30-inch diameter pipeline, and a stub line, Line 36, an 8-inch diameter pipeline. The pumping station loop, which provides suction to and discharge from the three pumping units is a U-shaped pipe run that lies perpendicular to the pipelines. In addition to the Colonial pipelines, a ROW for a TransCanada natural gas pipeline and four (4) Crown Castle (Crown) fiber optic (telecommunication) cable conduits traverse the eastern side of the property.

### 2.3 Surrounding Land Use

The Site is generally rural and surrounded by residential properties containing tracts of undeveloped land. There are areas of agricultural use to the south, west, and east and by Charles Street to the north. The majority of the area is zoned agricultural and rural residential, with the land use designated as agricultural. A TransCanada natural gas compressor station lies less than 400 feet from the southeastern edge of the Site.

## 2.4 Utilities, Septic Systems, and Private Supply Wells

Fiber optic cable conduits (Crown) and a natural gas pipeline (TransCanada) ROW traverse the eastern side of the Site, and two (2) petroleum pipelines (Colonial) run along the length of a separate ROW near the center of the Site. The three (3) utility ROWs generally trend southwest to northeast, converge near Charles Street (approximately 800-feet northeast of the pump station equipment), and then cross under Charles Street and WBWR. Near the operations area of the Site, the Crown and Trans Canada ROW are approximately 150-feet south-southeast of the Colonial ROW. Electric and telephone utilities appear to be carried by overhead wires. Local cable service is marked as an underground approach to the Site.

The Site has an on-Site supply well used for the lavatory and cleaning water. Bottled water is supplied for drinking. The Site has a septic system situated to the east of the Operations Building. The surrounding properties obtain their drinking water from private supply wells and utilize private septic systems for sanitary waste disposal.

## 2.5 Area Drinking Water Supply Wells and Water Intakes

Area properties utilize local groundwater as their drinking water from private supply wells. Municipal water supply wells were not identified in the local surrounding area. The area is defined as a High Risk Groundwater Use Area as per the Title 26 Code of Maryland Regulations Part 2, Subtitle 10, Sec. 26.10.02.03. - High Risk Groundwater Use Area.

Approximately 2-miles downstream, the WBWR meets the East Branch Winters Run to form Winters Run. Approximately 9.5-miles downstream (east) of the Site, the Maryland American Water Company operates a surface water intake on Winters Run for the Maryland American Bel Air Water System under Water Appropriation Permit ID HA1976S015. WBWR is designated as a Use IV-P stream.

## 2.6 Sensitive Areas

The MDE, and the United States Army Corps of Engineers (USACE), Baltimore District, have issued Statewide Maintenance Authorizations, Maryland State Programmatic General Permits (MDSPGPs) for Colonial for work in jurisdictional areas along its ROW. As part of the approval process, the Maryland Department of Natural Resources (DNR), Wildlife and Heritage Service reviewed its rare, threatened and endangered species database for stream crossings along the pipeline ROW. The Maryland DNR did not list potential concerns for rare, threatened or endangered species along the pipeline corridor in proximity to the WBWR crossing, located just north of the Site.

The National Wetland Inventory (NWI) Wetland Mapper identifies portions of the lowlands located adjacent to WBWR as wetlands. A wet area is also located to the north of the pond outfall and along a former drainage channel that appears to have been disturbed by work in the TransCanada and Crown ROW. This area is not mapped by the NWI, nor has it been field-delineated.

## 3.0 GEOLOGIC AND HYDROGEOLOGIC SETTING

### 3.1 Physiographic and Topographic Setting

The Site is located in the Piedmont Physiographic Region. This is an area of gently rolling hills underlain by bedrock and capped by the weathered bedrock residuum, or saprolite. The Site slopes from the northeast, along Charles Street, to the southwest, near the operating portions of the Site and the bounding hillside. Site elevations range from 429 feet AMSL near Charles Street to approximately 519 feet AMSL on the southwest side of the Site. Based on pre-construction topographic maps in Colonial files and field observations discussed below, the operation area of the Site appears to be constructed on relatively uniform fill material placed on top of the native saprolite in the native topographic draw that originates in the hillside to the southwest of the Site. The ground surface of operation area of the Site is flat lying at an elevation of approximately 477 feet AMSL.

### 3.2 Area Geology

According to the Geologic Map of Harford County (1968), the Site is underlain the Lower Pelitic Schist of the Wissahickon Formation. These Precambrian Age materials are derived from metamorphosed sedimentary rocks and described as a medium- to coarse-grained biotite-oligoclase-muscovite-quartz schist with the accessory minerals garnet, staurolite, and kyanite. The on-Site supply well is cased to a depth of approximately 35 feet suggesting that competent rock is encountered at this depth near the supply well location.

Saprolite, overlies the parent material schist. The saprolite is generally comprised of low permeability clays developed from the in-situ weathering of the mica minerals in the schist. Depending on the weathering profile, the fabric of the parent rock can be observed in the saprolite at depths where the minerals have retained their original orientation. The saprolite tends to be thinner beneath slopes and thick beneath broad upland areas.

Excavations and borings completed at the Site (see Section 5) encountered a relatively uniform dense, brown, silty clay, which was also logged as brown clayey sand, to depths of up to approximately 20 feet below ground surface (bgs). The uniform fill material placed as a foundation for the pump station appears to be a micaceous, brown silty clay consistent with a screened quarry material from a local source within the regional expression of the Wissahickon Schist. The remnant topographic draw was over-excavated and then the fill was placed upon the saprolite that formed the new temporary ground surface. The remnant draw that was filled, trends from the southwest to northeast across the pumping station loop with the thickness of the fill material increasing to the northeast toward the location of MW-6 and the outfall of the pond. The objective for use of a uniform imported fill is to provide material selected to meet the geotechnical engineering requirements for the pump station and the purpose of over-excavation and subsequent fill is to minimize the potential for differential settlement. Pump station construction documents confirm that portions of the fill material were structurally compacted to proctor densities of approximately 90% or greater to prevent settling of the pump station infrastructure. Along with the clayey nature of the fill material and underlying saprolite, this structural compaction resulted in a low permeability zone in and around the release area.

The Geologic Map of Harford County also maps alluvial deposits on the lower elevations near the wetlands and floodplain adjacent to WBWR. These deposits are derived from weathering and transport

of the materials from the hillsides to the lowlands adjacent to the streams and are chiefly comprised of micaceous silt and clayey sand.

From a structural standpoint, the Site is located on the southeast flank of the axis of the Baltimore-Washington Anticline. The primary structural feature in the formation is metamorphic foliation in the schist. In close proximity to the Site, the bedrock primary foliation is mapped to strike northeast-southwest (approximately parallel with the Site driveway) and dip 54 degrees to the southeast.

### **3.3 Soils**

The Site is mantled with soil developed from the saprolite of weathered bedrock as the parent material. The Natural Resource Conservation Service Web Soil Survey maps the majority of the soils at the Site as the Manor Loam with slopes ranging from 8 to 25 percent. The soil mapped on the hilltops to the west and south sides of the Site are the Chester Silt. The Manor Channery Loam is mapped on the east side of the Site. The four soil types are described as well drained. Depth to first water is presented as generally greater than 80 inches.

### **3.4 Area Hydrogeology**

This Jarrettsville-Fallston area of the Piedmont Physiographic Province is characterized by bedrock aquifers within Precambrian Age metamorphic rocks of the region. The primary porosity of the bedrock is relatively low, and groundwater flow generally occurs along fractures, joints, and foliation comprising the secondary porosity. The Lower Pelitic Schist of the Wissahickon Formation is the least productive aquifer in the area. As noted by the Harford County Health Department, it often proves difficult to develop an adequate supply well that is able to produce the requisite one gallon per minute flow rate in this low-yielding formation.

When the water table occurs within the weathered residuum (saprolite) above the bedrock, groundwater flow occurs within the pore spaces between the mineral grains or within relict foliation. A shallow water table near the contact between the basal interval of the saturated saprolite and the upper weathered bedrock zone is often present in this area.

### **3.5 Site Hydrogeology**

As noted in the Jarrettsville Quadrangle Hydrogeology (Atlas No. 5), depth to water is related to proximity to the perennial streams that transect the area and relative elevation to the valley floors on the adjacent hillsides. The orientation of many valleys, draws, and streams channels seem to be controlled by joints and fractures. Near perennial streams like WBWR, depth to water is mapped at less than 10 feet bgs. As the hillslopes are traversed, depth to water ranges from 10 to 35 feet, and may be greater than 35 feet deep on hilltops. The likely discharge point for shallow groundwater at the Site is the drainage swale and wet area to the north of the secondary containment pond outfall and to the east of the entrance driveway.

Surface runoff at the Site is engineered to direct precipitation away from the operating area. This engineered stormwater management system minimizes infiltration and hydraulic loading to the below ground infrastructure. The historical pre-construction draw begins uphill (southwest-west) from the pump station and encounters the operational areas at the southwest corner. Surface water from the draw is directed through a shallow swale around the west side of the operational area that continues along the west side of the driveway to Charles Street to the northeast. On the southeast-east side of

the Site, a drainage swale is installed along the fence line to direct runoff from the adjacent hillside away from the operating areas of the Site. The drainage swale runs along the eastern and southern side of the Site, through a secondary containment pond, and directs flow toward Charles Street.

Within the gravel covered operating area (product piping loop), a system of shallow perforated yard drains, lined with a permeable stone ballast material, conveys stormwater through an OWS to the secondary containment (stormwater) pond. Under normal operating conditions, the stormwater runoff has no industrial contact with the sealed product pipeline system. The remainder of the operating area and impermeable areas of the Site are sloped toward the southeast side swale with the secondary containment pond. The gravel covered area near the electrical substation is sloped toward the northern side swale, and drains toward this feature.

On the north side of the Site (downhill), the aforementioned shallow swale flows along the northwest side of the drive. On the southeast side of the drive, stormwater flows off the grassy area toward the TransCanada-Crown ROW, where a drainage ditch parallels the entrance driveway and is visible approximately 300 feet to the south of Charles Street. The drainage ditch flows under Charles Street through a culvert, then dissipates into the wetland on the south side of WBWR. There is no discernible channel connecting the culvert to WBWR.

Further to the southeast than the features discussed above, an additional drainage channel (swale) is located along the southeastern side of the Colonial property, outside all Colonial operating areas, in a topographic valley that trends toward the TransCanada compressor station. It appears that maintenance work along the TransCanada-Crown ROW has disturbed flow along this drainage channel and resulted in a wet area, where standing water is observed, between the pond outfall and the above-referenced drainage swale that parallels the Site driveway.

Finally, a seep area has been observed along the TransCanada-Crown ROW, near Charles Street. Given that the elevation of the seep is higher than the drainage channel, it appears the seep is sourced on the hillside to the east-southeast of the Site.

## 4.0 RESPONSE AND INTERIM REMEDIAL MEASURES

The response and IRM activities have proceeded in multiple, often concurrent, activities. As detailed in Section 1.1., initial response and containment activities include, yard drain excavation and restoration, access well excavation, stormwater swale excavation and lining, pipeline excavation and repair. Initial response and LNAPL recovery activities began following the observation of LNAPL in pump station system valve observation access wells and on the pond on March 7, 2018.

The post-excavation sampling and IRM activities have occurred in an iterative process. The majority of the post-excavation sample results were analyzed within a 24-hour laboratory turnaround time to identify areas requiring further excavation or vertical delineation and facilitate a continuous excavation schedule. During IRM (excavation) activities, soil and rock samples were collected by TRC personnel using decontaminated sample collection tools, and samples were promptly transferred into pre-preserved, laboratory-provided bottle ware, and placed in a cooler on ice. Appropriate chain of custody documentation accompanied the chilled soil samples submitted for analysis to Caliber Analytical Services, LLC (Caliber) of Towson, Maryland (Maryland State Certified Laboratory) and rock samples submitted for analysis to TestAmerica Laboratories, Inc. (TestAmerica) of Edison, New Jersey.

Analytical results are summarized on **Table 1** through **Table 5**. Locations of collected soil samples during excavation activities are show on **Figure 6** through **Figure 9**. The laboratory analytical reports including chain of custody documentation and QA/QC summary are presented in **Appendix D**. Waste disposal documentation, including bills of lading, is presented in **Appendix H**. A discussion of the IRM activities and laboratory analytical data collected is provided below.

### 4.1 Initial Response & Containment

As detailed in Section 1.1, initial response actions to the reported event began on March 7, 2018, with the execution of pipeline system containment actions, which included isolating the pump station loop piping from the main line pipeline (Line 03), deactivation of Line 03 pumping, and the subsequent closing of the pump station upstream and downstream Line 03 block valves. Pump station facility containment actions included deploying absorbent boom installation across the secondary containment (stormwater) pond, closing the stormwater pond discharge line valve, and placement of plumber's plugs and/or caps on pond discharge lines below the pond outfall. Subsurface excavation activities ensued, and a leak point was identified on the pump station alternate discharge line.

During the pipeline system containment and excavation actions, monitoring and recovery of observed LNAPL and PCW began across the Site. Utilizing vacuum trucks and vacuum tankers, supplied by Colonial's OSRO, LNAPL and PCW were evacuated from the valve observation access wells, stormwater pond, the facility OWS, the stormwater yard drain lines, and isolated areas of LNAPL puddling in the excavation areas. LNAPL was also recovered from multiple temporary wells installed during the Site investigation activates further discussed in Section 5.

A summary of the initial measured LNAPL thicknesses in in the valve observation access wells is summarized herein. Locations of the valve observation access well are shown on **Figure 7**.

**Table 4.1: Initial Valve Observation Access Well LNAPL Thickness Summary**

ACCESS WELL ID	DESCRIPTION	ACCESS WELL DIAMETER (INCHES)	INITIAL LNAPL THICKNESS (FEET)
AW-1	High U/S Line Press	60	1.42
AW-2	Line 03 U/S Check Valve	64	1.75
AW-3	Pig Sig #3	52	1.43
AW-4	Strainer Drain Valve	24	0.03
AW-5	(2) Strainer Diff Pressure	30	1.35
AW-6	(1) Strainer Diff Pressure	30	1.45
AW-7	Drain Line	15	0.07
AW-8	Unit 1 Check Valve	60	0.05
AW-9	Unit 2 Discharge Valve	30	1.71
AW-10	Control Valve Hydraulics	48	1.05
AW-11	Flange	24	1.40
AW-12	Unused Valve	24	1.53
AW-13	Pig Sig #4	48	1.35
AW-14	Line 03 D/S Check Valve	64	1.20
AW-15	Drain Line By Suction Valve	24	0.04

Further details of the initial response activities are detailed in the March 21, 2018, Spill Report submitted to the MDE which is presented in **Appendix C**.

#### **4.2 Yard Drain Excavation**

During the initial response activities, the facility OWS was inspected for the presence of LNAPL, which was observed to be present. The current piping configuration of the facility OWS receives flow from the yard (i.e., area inside loop the road) stormwater drain system. Upon further investigation, LNAPL residuals were observed in the yard drain (perforated) piping and pipe bedding materials. The yard drain system was excavated in an effort to remove LNAPL residuals deposited from the release event.

The yard drain system was excavated by Colonial’s pipeline maintenance and repair contractor, Atlantic Industrial, Mechanical and Electrical (AIME) of Baltimore, Maryland, at the direction of TRC and Colonial to a depth of approximately 2.5-feet bgs. Under advisement of the MDE and part of the Phase I investigation activities, post-excavation soil samples from the bottom of the yard drain trench excavation were collected approximately every ten linear feet for comparison to the MDE Soil Residential Clean-up Standard (RCS) for volatile organic compounds (VOCs), and Non-Residential Clean-up Standard (NRCS) for total petroleum hydrocarbons diesel range organics (TPH-DRO) and total petroleum hydrocarbons gasoline range organics (TPH-GRO). The soil samples were submitted to Caliber for analysis.

A total of 41 post-excavation locations were identified (**Figure 6**). When combined with the vertical delineation samples, a total of 51 post-excavation soil samples collected from the yard drain system in

March 2018. Locations where vertical delineation sampling and additional excavation were completed include: PX-YD-13, -20, -23, -30, -31, -33, -35, -38, and -39. Where yard drain post-excavation samples did not attain the RCS and NRCS criteria at the original excavation depth of 2.5 feet bgs, additional deeper soil samples were collected and analyzed to assess the vertical concentration gradient. Once the depth of RCS and/or NRCS exceedances were vertically delineated at the re-sampled yard drain post-excavation locations, the trench excavations were deepened to the vertically-delineated depth. Additional soil excavation included the entire length between the delineated sample locations.

Additionally, TPH-DRO and TPH-GRO exceedances measured in yard drain post-excavation samples PX-YD-16 (3200 mg/kg TPH-DRO) and PX-YD-18 (700 mg/kg TPH-DRO) soil will be further excavated. This soil will be excavated during pipeline inspection and maintenance activities along the pump station loop pipeline (scheduled to begin at the conclusion of the further detailed IRM activities), which will pass through these locations.

As further described in Section 5.1, an area of residual impacts, which are unrelated to the release identified on March 7, 2018, was identified on the west side of the pumping station loop. Horizontal and groundwater delineation of the residual impacts is complete and discussed in Section 5.1 and Section 5.2. The VOC, TPH-DRO, and TPH-GRO exceedances measured in the northern yard drain post-excavation samples PX-YD-05, PY-YD-06, PX-YD-08, and PX-YD-25 through PX-YD-27, proximal to soil boring HA-3, were not vertically delineated. No excavation beyond the initial 2.5 feet bgs was completed, as this area will be addressed during the pending HA-3 area investigation and remediation activities. The yard drain post-excavation soil samples, with exception of PX-YD-05, were below the RCS criteria for VOCs of concern (i.e., benzene, toluene, ethylbenzene, total xylenes, methyl tert-butyl ether, and naphthalene). The benzene concentration in PX-YD-05 was 13 milligrams per kilogram (mg/kg), relative to the RCS of 12 mg/kg.

The yard drain post-excavation sample laboratory report data are summarized on **Table 1**. Locations of the yard drain post-excavation samples are shown on **Figure 6**.

Following the post-excavation soil sampling activities, the yard drain piping system was replaced with new pipe bedding material, new perforated PVC drain pipe, and backfilled with imported fill to match surrounding elevations and cover. The northern portion of the yard drain excavation, near the HA-3 area to be addressed in subsequent phase of the Site restoration, was lined with plastic sheeting, backfilled with sand, covered with a second layer of plastic sheeting, and topped with aggregate to match surface surroundings. The yard drain system in this area was disconnected and isolated from the remainder of the system. Two layers of plastic liner and disconnection from the yard drain system will minimize water infiltration and pending IRM activities will address the reported soil RCS and NRCS exceedances.

### **4.3 Access Well Excavation**

During the initial response activities, LNAPL was first observed in valve observation access wells (see Table 4.1). These access wells, constructed of corrugated HDPE pipe with diameters of 15 to 64 inches, maintain access to valves and controls connected to the pipeline and pump station system that are set at elevations below the ground surface. Following the removal of LNAPL and PCW from the access wells, the access wells were excavated in an effort to remove LNAPL residuals from the release event.

The access wells were excavated by AIME at the direction of TRC and Colonial by excavating the annular soils on the exterior of the well casing, removing the well casing, and excavating the surficial soils on the well bottom to an approximate depth of 3.0-feet below bgs. Soil samples were collected from the bottom of the access wells for comparison to the MDE RCS for VOCs, and NRCS TPH-DRO and TPH-GRO. On March 19, 2014, a total of 14 post-excitation locations (PX-AW-01 through PX-AW-14) were sampled as part of the Phase I investigation activities (**Figure 7**). Access well AW-15 was previously excavated as part of the initial response release source area excavation and pipeline repair activities and, therefore, was not sampled as part of the access well investigation.

On March 19, 2018, post-excitation samples collected in access wells AW-05 (PX-AW-05), AW-8 (PX-AW-08), AW-9 (PX-AW-9), AW-12 (PX-AW-12), and AW-14 (PX-AW-14) exceeded the NRCS criteria for TPH-DRO (620 mg/kg) and/or TPH-GRO (620 mg/kg). A deeper interval sample was collected at AW-12 on March 26, 2018, to delineate soil quality, but was in exceedance of NRCS criteria for TPH-DRO with a reported concentration of 810 mg/kg. Based on the locations of the access wells with measured soil concentration exceedances, with respect to the main and loop pipelines locations, no additional IRM excavation or sampling was deemed necessary as the access well will be fully excavated (i.e., down to the connecting pipeline) during Line 03 and loop pipeline inspection and/or maintenance activities at the Site.

The access well post-excitation sample laboratory report data are summarized on **Table 2**. Locations of the access well post-excitation samples are shown on **Figure 7**.

#### **4.4 Stormwater Swale and Pond Sediment**

During Site inspection activities immediately following the discovery of the release, the discharge of LNAPL and PCW from the OWS to the south side stormwater swale leading to the retention pond was observed. Stained soil was removed from the topsoil lining the swale as part of the initial response. Further excavation of surficial soils of the swale (0 to 1 feet bgs) was completed by AIME on March 19, 2018 under the direction of TRC and Colonial. Following the completion of the surficial soil excavation, eight (8) post-excitation samples of the swale soils were collected approximately every ten (10) linear feet and four (4) shallow sediment samples from the pond (e.g., two sample points at two depths) were collected for comparison to the RCS and NRCS for VOCs and TPH-DRO/TPH-GRO, respectively, by TRC and submitted to Caliber for analysis.

The March 19, 2018, post-excitation samples from the swale PX-OS-01 through PX-OS-08 exceeded the NRCS criteria for TPH-DRO and/or TPH-GRO. The swale post-excitation samples PX-OS-01 through PX-OS-08 were non-detect and below the RCS criteria for VOCs of concern. The pond sediment samples, PX-OS-09 and PX-OS-10, were non-detect and below the RCS criteria for VOCs of concern, and below the NRCS criteria for TPH-DRO and TPH-GRO at both sampling intervals. The drainage swale was covered with plastic sheeting from the OWS outfall to the pond pending design of, and further restoration of, the swale as detailed below.

To further address the swale soil quality, additional excavation was completed by AIME on May 2, 2018, under the direction of TRC personnel. The swale was generally excavated to the transition zone between overburden soils and weathered bedrock (1.5 to 3.5 feet bgs). Bedrock was observed to be more competent closer to the OWS outfall. Post-excitation samples (PX-OS-11 through PX-OS-20) were collected at the bottom of the excavation near the residual soil-weathered bedrock contact at a

horizontal interval of approximately ten (10) linear feet for comparison to RCS and NRCS for VOCs and TPH-DRO/TPH-GRO, respectively. The samples were submitted to TestAmerica for rock digestion and analysis.

The May 2, 2018, additional post-excavation samples (PX-OS-11 through PX-OS-20) were below RCS and NRCS criteria, with the exception of PX-OS-16, which exceeded the TPH-DRO NRCS standard (620 mg/kg) with a reported concentration of 800 mg/kg. The PX-OS-16 location is capped with the HDPE geomembrane (see below).

The swale post-excavation sample laboratory report data are summarized on **Table 3**. Locations of the swale post-excavation samples are shown on **Figure 8**.

Following the additional excavation and sampling, the swale was restored, exceeding original condition by installing an impermeable conveyance channel for the OWS discharge and to minimize future surface water infiltration and hydraulic loading to the subsurface. Following additional soil grading and sub-base preparation using clean fill, the swale was lined with approximately 90 linear feet of 60-millimeter HDPE geomembrane liner and 12 ounce non-wove geotextile prior to backfilling with approximately 6-inches of washed 1.5-inch diameter stone and 18-inches of rip-rap stone along the swale bottom and side slopes. The HDPE geomembrane extends almost ten feet outside the midline of the swale and is keyed into the adjacent hillsides. The section of restored swale is identified on **Figure 8**.

#### 4.5 Pipeline Excavation

Following the repair of pump station alternate discharge line, further maintenance on the Line 03 and Line 36 pipelines were required to replace the protective coating on both lines that was in contact with released LNAPL discovered on March 7, 2018. The Line 03 and Line 36 pipelines were excavated as part of the Phase II activities in both directions from the release area until coating that did not require removal and replacement was observed. The recoat work extended approximately 60 feet in both directions from the leak area. During the pipeline maintenance excavation activities, soils surrounding the pipelines were excavated including 1 to 2-feet of soil below the 30-inch Line 03. The total excavation depth varied based on pipeline installation depth and ranged from 7 to 8 feet bgs.

A total of 11 post-excavation locations were identified (**Figure 9**), accumulating to a total of 13 post-excavation soil samples collected in April and May 2018. The post-excavation samples were collected by TRC and submitted to Caliber for analysis.

The post-excavation soil samples were below the MDE RCS values for VOCs and the NRCS for TPH-DRO and TPH-GRO at finished excavation depth, except PX-L03-07 and PX-L03-09, which exceed the TPH-DRO NRCS (620 mg/kg). The reported TPH-DRO concentrations in PX-L03-07 (8 to 8.5 feet bgs) and PX-L03-09 (7.5 to 8 feet bgs) were 1900 mg/kg and 1100 mg/kg, respectively, at their corresponding finished excavation depths. Deeper interval soil samples (below the finished local excavation depths) were collected at PX-L03-07 (9.5 to 10 feet bgs) and PX-L03-09 (10 to 10.5 feet bgs) and were both reported to be well below the TPH-DRO NRCS (27 mg/kg and 26 mg/kg, respectively), however, due to infrastructure limitations from the pipelines and safety concerns, the excavation depths in these areas were not able to be extended to the vertically-delineated depths.

The Line 03 (and Line 36) post-excavation sample laboratory report data are summarized on **Table 4**. Locations of the Line 03 (and Line 36) post-excavation sample locations are shown on **Figure 9**.

Following excavation, impacted coating was cleaned, and the pipeline and appurtenances sandblasted, and the coating restored in accordance with approved procedures. The excavation was backfilled with clean fill, and the surface was restored to match the existing grade and local surface covering.

#### **4.6 Waste Management**

Excavated soils and pipe bedding materials were stockpiled on plastic sheeting, bermed with hay bales and/or concrete jersey barriers, and covered with plastic sheeting. Following waste characterization and receipt of characterization profile approval from treatment, storage, and disposal facility (TSDF), Soil Safe of Logan Township, New Jersey, the stockpiled soil and pipe bedding material was then periodically transported for off-site treatment/disposal to the TSDF. As of May 16, 2018, a total of approximately 936 tons of soil and pipe bedding material has been received by the TSDF. The use of Soil Safe's Logan, New Jersey facility, as approved by the MDE, was confirmed in email correspondence to the MDE dated March 22, 2018.

Recovered LNAPL and groundwater were transported by Miller Environmental Group Inc. of Curtis Bay, Maryland (Miller) or Triumvirate Environmental of Baltimore, Maryland (Triumvirate) to designated TSDFs under existing and accepted profiles for LNAPL/PCW mixtures. The designated TSDFs, Monarch Environmental Services, LLC of Woodstown, New Jersey (Monarch) and Triumvirate received the recovered fluids for treatment/disposal. As of May 23, 2018, a total of 114,166 gallons of LNAPL and PCW has been received by the TSDFs for treatment/disposal.

Sorbent booms and pads utilized to recover LNAPL in the stormwater pond, access wells, and excavations were placed in a lined roll-off container along with other impacted materials and general refuse (e.g., personal protective equipment, disposable bailers, and media sampling materials). The material was transported by Miller to the TSDF, Monarch, for treatment/disposal.

Waste disposal documentation is presented in **Appendix H**. The waste totals detailed in this section also include investigation derived waste (IDW) (e.g., soil cuttings, well development and purge water, and impacted sampling materials) generated during the Site investigation activities detailed in Section 5.0.

## 5.0 INVESTIGATIVE ACTIVITIES AND RESULTS

From March to May 2018, TRC conducted multiple investigations to evaluate soil and groundwater conditions in response to the release discovered on March 7, 2018. These investigations included soil borings via hand auger and direct push technology (Geoprobe), temporary well point installation for visual inspection of groundwater and groundwater sampling, installation of permitted monitoring wells for groundwater assessment and long term groundwater monitoring, surface water sampling at WBWR and on-Site drainage channel from the retention pond, and residential sampling at ten (10) neighboring properties. In addition, 97 post-excavation soil samples and four (4) sediment samples were collected during the IRM activities discussed in Section 4.0. Section 5.0 provides a qualitative discussion of the basis for the selection of soil sample locations, and an overview of the Geoprobe, groundwater, residential well, and surface water sample results.

### 5.1 Soil Boring Investigation (Hand Auger)

From March 7, 2018, to March 15, 2018, prior to mobilization of the Geoprobe rig, TRC conducted a total of 17 hand auger borings to characterize the Site geology and to delineate soil and potential LNAPL impact from the release discovered on March 7, 2018. Hand auger (HA) borings were identified as HA-1 through HA-17. Ten (10) hand auger borings were advanced to less than 10 feet bgs within the pumping station loop in an effort to confirm residual petroleum did not migrate outside the loop, evaluate potential LNAPL presence, and delineate soil contamination along the yard drain lines. Seven (7) hand auger borings were conducted outside the pumping loop to evaluate potential downgradient migration of contamination and to assist in selection of direct push boring locations (discussed in Section 5.2).

Soils recovered from the hand auger borings were predominately characterized as brown micaceous silty sand with some clay (locally sourced fill) with white clay encountered in select borings. Detailed soil boring logs are included in **Appendix E**. Hand auger boring locations are shown on **Figure 5**.

The hand auger locations were field screened with a photoionization detector (PID). Given the pending arrival of the Geoprobe unit, soil samples were not collected from the hand auger borings. The Geoprobe unit was used for soil sample collection to allow for collection of undisturbed soil samples from the acetate liner consistent with United States Environmental Protection Agency (USEPA) Method 5035. Select hand auger borings were finished with a temporary well point to visually evaluate groundwater conditions and presence of LNAPL. Hand auger locations were selected based on the following:

- HA-1 was conducted approximately 150-feet downgradient of the release area and was installed in a valve pit between Line 03 and Line 36 to assess the potential for LNAPL migration along the annular space of pipelines. Soil in this boring did not exhibit signs of impact and soil VOC headspace concentrations were 0.0 parts per million (ppm) as measured with the PID from surface to the finished depth of 10 feet bgs.
- Consistent with the outside-in investigative approach, HA-2 was conducted upgradient of the release area in the southwestern corner of the pumping loop road interior in an effort to initially characterize Site geology and depth to groundwater in an area free of petroleum impacts. Soil

in this boring did not exhibit evidence of impact and PID measured soil VOC headspace concentrations were 0.0 ppm from surface to the finished depth of 7.5 feet bgs. Groundwater was encountered in the temporary point. The boring was finished with a temporary well point for groundwater observation. No odor or sheen was observed from or on the groundwater.

- HA-3 was conducted within the pump loop road northwest from the release area at the northwest extent of the yard drain system to evaluate whether the release had migrated beyond the yards drains. Soil in this boring exhibited a petroleum odor and soil VOC headspace concentrations. Moisture was encountered in the boring at around 8.5 feet bgs. The boring was finished with a temporary well point for groundwater observation. Two (2) hours after well completions, LNAPL was observed in the temporary well. The temporary well was left in place for LNAPL recovery and water was measured by Miller personnel in the bottom of the point the following morning. As discussed below, the HA-3 area was determined to be residual impacts from an historical release and will be addressed during a subsequent remedial phase at the conclusion of the pump station coating inspection and recoat work.
- Hand auger borings HA-4, HA-5, HA-8, HA-9, HA-11, HA-14, and HA-16 were conducted to delineate the LNAPL encountered in HA-3 as well as continue delineating soil around the drain lines. Soil from borings HA-4 and boring HA-14, located north and west of HA-3 respectively, both exhibited petroleum odor and high soil VOC headspace concentration readings. Both borings were finished with temporary well points for groundwater observation. LNAPL was subsequently observed in both the HA-4 and HA-14 temporary wells. The temporary well was left in place for LNAPL recovery and water was measured by Miller personnel in the bottom of the point the following morning. VOC soil headspace concentrations were recorded at HA-11 and H-16, but LNAPL was not measured at these locations. Soil in borings HA-5, HA-8, and HA-9 (advanced outside the pumping loop) did not exhibit evidence of impact with PID measured soil VOC headspace concentrations of 0.0 from surface to the finished depths in each boring.
- Field observations indicated that the yard drains were a preferential pathway, and the LNAPL impacts were limited to the yard drain and ballast along this pathway. To evaluate the potential for LNAPL migration outside of the yard drain system, HA-6, HA-10, and HA-15 were installed adjacent to the yard drains, but outside of the ballast zone. Soil in these borings did not exhibit evidence of impact or soil VOC headspace concentrations. Temporary PVC points were placed in HA-6 and HA-10. Water was encountered in the borings and routinely checked with a bailer. No odor or sheen were observed in these points. Additionally, during initial response excavations, several test shallow pits were excavated west of HA-10 and between the two main yard drain trunk lines. The test pits were excavated to approximately 3-feet and no evidence of soil impact was observed. The findings at HA-6, HA-10, and HA-15 and the nearby test pits suggest the LNAPL migration was limited to the yard drain trenches (piping and ballast) and was not contiguous between or at depth below the yard drain system.
- HA-7 and HA-13 were conducted south southeast of the release area to evaluate potential horizontal and vertical migration of soil contamination outside the pumping loop. Soil in these borings did not exhibit evidence of contamination nor soil VOC headspace concentrations. HA-

13 was finished with a temporary well point for groundwater observation, but the temporary well did not produce water.

- HA-12 was conducted northeast of the release area, near the Site Operations Buildings to evaluate potential horizontal and vertical migration of soil impact outside the pumping loop road. Soil in this boring did not exhibit evidence of impact nor soil VOC headspace concentrations. The boring was finished with a temporary well point for groundwater observation, but the temporary well did not produce water.
- HA-17 was conducted in close proximity to and in the inferred downgradient direction from the release area to assess the potential presence of LNAPL on the water table outside of the pipeline corridor. Soil in this boring exhibited petroleum odor. Soil VOC headspace measurements and soil samples were not collected. The boring was finished with a temporary well point for groundwater observation and groundwater was encountered in the boring. No LNAPL, odor, or sheen was observed on the groundwater.

Observations from borings HA-2, HA-6, HA-10, HA-11, HA-16, HA-15 and initial response test pits indicated that, other than in the annular space of the yard drains and access wells, soil impact north and west of the release area within the pumping loop road were delineated. With regards to the yard drain system, the hand auger observations indicate soil impact from the release has not extended horizontally outside of the immediate vicinity of the yard drain lines that were impacted during the release.

Observations from borings HA-3, HA-4, HA-5, HA-8, HA-9, HA-11, HA-14, and HA-16 indicated that residual LNAPL unrelated to the release reported on March 7, 2018 was present in the area of HA-3, HA-4, and HA-14. In conjunction with the Geoprobe investigation results (Section 5.2), the hand auger field delineation suggests the HA-3 residual LNAPL area is delineated. LNAPL was not present, and soil VOC headspace concentrations were 0.0 parts per million or at low levels, at HA-2 to the southwest, HA-5 to west, HA-8 to the north, HA-11 to the east, and HA-16 to the southwest. The hand auger borings were filled with bentonite at the conclusion of the Geoprobe investigation.

Based on these observations, LNAPL samples were collected by TRC and Colonial personnel from the HA-3 area temporary wells and the release area excavation designated as North and South, respectively. The samples were submitted under chain of custody to Phase Separation Science (Phase) of Catonsville, Maryland for analysis via capillary gas chromatography technique (Modified EPA 8015), coupled with flame ionization detection to identify sample constituents. Results of the analysis reported that the North (HA-3 area) LNAPL was weathered gasoline that had lost significant 'light end' compounds and the South (release area) LNAPL was a mixture of diesel fuel and kerosene. LNAPL sample results are included in **Appendix D**.

The HA-3 area is currently targeted for excavation during the next phase of remediation. Based on the selected remedy, the need for installation of permanent recovery points in proximity to HA-3 will be evaluated. Further discussion of the HA-3 LNAPL area, including recommendations for additional remediation, is presented in Section 6.0.

## 5.2 Soil Boring Investigation (Direct Push)

From March 14 2018, to March 16, 2018 a soil and groundwater investigation was conducted to continue evaluation of the Site for potential horizontal and vertical migration of constituents of concern in soil and groundwater. Direct push soil boring locations were selected to confirm the visual and olfactory observations and VOC concentrations measured using a hand-held PID of the hand auger program described in Section 5.1 and to facilitate the collection of soil and groundwater samples to quantitatively delineate impact. All borings discussed in this Section were advanced and abandoned with bentonite or converted to permanent monitoring wells by Odyssey Environmental Services of Harrisburg, Pennsylvania (Odyssey), a Maryland licensed driller.

Site background documents (Harford County Geological Map, pre-construction Site topographical mapping, and current Site Topographical mapping) indicated that Site construction created a contained platform of imported fill, selected for specific geotechnical engineering characteristics, upon which the pump station would be constructed (Section 3.2). Therefore, an additional objective of the direct push soil boring program was to develop the understanding of the physical relationship of the relict natural geological setting to the imposed current geological setting. An objective of each boring was to identify the depth and conditions at the contact between imported fill and the original Site geologic strata. Based on soil boring observations, it appears the native surface was altered during the Site construction. As such, the imported fill below the pump station does not typically encounter the historical natural ground surface. The contact is typically a discrete unconformity between fill and bedrock saprolite at the depth of the temporary artificial surface created during construction although boring observations indicate the historical ground surface may be more intact beneath the fill northeast of the pump station structures.

Soil and temporary well point groundwater samples were collected using decontaminated or disposable sample collection tools, and samples were promptly transferred into pre-preserved, laboratory-prepared bottle ware, and placed in a cooler on ice by TRC personnel. Appropriate chain of custody documentation accompanied the chilled samples to Caliber. Soil and groundwater analytical results are tabulated in **Table 5** and **Table 6**. Laboratory Analytical Reports are included in **Appendix D**.

Odyssey, at the direction of TRC, advanced ten (10) direct push soil borings to depths ranging from 7.5-feet to 24-feet bgs. A total of ten (10) soil samples were collected for analysis of TPH-DRO, TPH-GRO, and VOCs including fuel oxygenates and naphthalene. Six (6) borings were finished as temporary monitoring wells for groundwater observations and sampling. During the program groundwater samples were also collected from four (4) temporary monitoring wells for analysis of TPH-DRO, TPH-GRO, and VOCs including fuel oxygenates and naphthalene contingent upon water volume in the temporary point. Soil and groundwater samples were analyzed by Caliber. Below are general descriptions of soil and groundwater observations at the soil boring locations. Detailed soil boring logs are included in **Appendix E**. Soil boring permit documents are included in **Appendix F**. Soil boring locations with select soil analytical data are shown on **Figure 10**. An overview of the basis for Geoprobe locations, field observations, and laboratory results is provided below.

- GP-1, the only direct push soil boring conducted inside the pumping loop road, was drilled to 10 feet bgs to further confirm delineation of the HA-3 area to the northeast. Soil in this boring did not exhibit evidence of soil impact or soil headspace VOC concentrations. A soil sample was

collected from the 8.0 to 8.5-foot interval, at the field-interpreted groundwater interface. Soil analytical results were non-detect for VOCs, TPH-GRO, and TPH-DRO. A temporary well was not installed.

- GP-2 and GP-3 were conducted along the fence line, north of the HA-3 area, to confirm delineation of groundwater and depth to the original ground surface interfaces. The borings did not exhibit evidence of soil impact or soil headspace VOC concentrations. A soil sample was collected at GP-2 from 7.0 to 7.5 feet bgs, the interval above the point of termination, and a temporary well consisting of 5-feet of screen was installed, but did not produce water. A soil sample was collected at GP-3 at the groundwater interface from 12.0 to 12.5-feet, and a temporary well consisting of 10-feet of screen was installed for collection of a groundwater sample. Soil analytical results were non-detect for VOCs, TPH-GRO, and -DRO. Groundwater analytical results at GP-3 reported VOCs and TPH-GRO below the laboratory PQL and TPH was reported at 470 µg/L, above MDE Type I Aquifer Groundwater Quality Standard (GWQS) of 47 µg/L.
- GP-4 was conducted in the asphalt-covered parking area northeast of the release area to evaluate potential downgradient soil and groundwater impact along the inferred historical topographic draw that was filled for Site construction. The boring did not exhibit evidence of impact and or soil headspace VOC concentrations. Soil samples were collected at GP-4 from 8.5 to 9.0-foot bgs, to emulate the nearby interval below the invert of Line 03. In addition, soil samples were collected from 14.0 to 14.5-foot bgs, an interpreted interface with original ground surface; and 16.5 to 17.0-foot bgs the apparent groundwater interface. The GP-4 location was selected in an effort to characterize the axis of the Site pre-development topographic draw. Based on the soil sample encountered (well sorted sand and wood immediately above saprolite), the 14.0 to 14.5-foot bgs depth interval is one of the few locations that is confidently designated as historical ground surface. A temporary well consisting of 10-feet of screen was installed in GP-4 for collection of a groundwater sample. Soil analytical results were non-detect for VOCs, TPH-GRO, and TPH-DRO. Groundwater analytical results at GP-4 reported VOCs and TPH-GRO below the laboratory PQL. Note that groundwater volume produced from the GP-4 sampling was insufficient to analyze TPH-DRO.
- GP-5 and GP-9 were conducted southwest of the release area to evaluate potential upgradient soil and groundwater impact. The borings did not exhibit evidence of impact and soil headspace VOC concentrations were 0.0 ppm from surface to their finished depths of 16-foot bgs and 20-foot bgs, respectively. A soil sample was collected at GP-5 from 8.5 to 9.0-foot bgs at the groundwater interface in a sand layer within the saprolite. A temporary well consisting of 10-feet of screen was installed in GP-5 for collection of a groundwater sample. Soil analytical results at GP-5 were non-detect for VOCs, TPH-GRO, and TPH-DRO. Groundwater analytical results at GP-3 reported all compounds below the laboratory PQL. GP-9 was installed in the inferred hydraulic upgradient direction from the release area in an effort to encircle the pump station loop to define Site stratigraphy. A soil sample was not collected at GP-9, and a temporary well was not installed.

- GP-7 was conducted in the parking area northeast of the release area to evaluate potential downgradient soil and groundwater impact. The boring did not exhibit evidence of impact or soil headspace VOC concentrations. A temporary point was installed at GP-7. Groundwater was encountered at 16-foot bgs in GP-7. Soil analytical results at both locations were non-detect for VOCs, TPH-GRO, and TPH-DRO. Groundwater analytical results at GP-7 reported VOCs and TPH-GRO below the laboratory PQL, and TPH-DRO at 310 µg/L, above Type I GWQS.
- GP-6 and GP-10 were installed east of the release area to evaluate potential soil and groundwater impact migration – specifically potential soil impact in the vicinity of the facility OWS and OWS discharge pipe (GP-6) and potential for impact at the location of former storage tanks (GP-10). The tanks were closed in 2010 in cooperation with the MDE. Six soil and four groundwater samples were collected in conjunction with the tank closure and submitted for laboratory analysis of VOCs, TPH-DRO and TPH-GRO. All soil and groundwater concentrations were non-detect for target compounds, with the exception of one soil that contained 3.6 mg/kg TPH-GRO concentration. The results for the 2010 tank closure were previously submitted to the MDE.
- The GP-6 and GP-10 borings did not exhibit evidence of impact and or soil headspace VOC concentrations. A soil sample was collected at GP-6 from 8.5 to 9.0-foot bgs, the interval above refusal and a temporary well consisting of 5-feet of screen was installed, but did not produce water. A soil sample was collected at GP-10 from 18.0 to 18.5-foot bgs, the observed interface between imported fill and saprolite. Groundwater was encountered at approximately 17.5-foot bgs. A temporary well was not installed in GP-10 given the location was already chosen for a permanent monitoring well. Soil analytical results at both locations were non-detect for VOCs, TPH-GRO, and TPH-DRO. No groundwater samples were collected.
- GP-8 was conducted north of the release area to evaluate potential soil and groundwater contamination downgradient from the HA-3 area. Soils did not exhibit evidence of impact and soil headspace VOC concentrations were 0.0 ppm from surface to the point of termination at 19.5-foot bgs (refusal). A soil sample was collected from 13.5 to 14-foot bgs, the observed interface with original ground surface. Soil analytical results were non-detect for VOCs, TPH-GRO, and TPH-DRO. Groundwater was encountered at approximately 16-foot bgs. Given the proximity of this point to the active pumping loop road and the potential for damage from the construction traffic, the point was abandoned prior to groundwater sample collection and relocated to the monitoring well MW-5 location.

### 5.3 Monitoring Well Installation

Based on observations during the direct push soil boring investigation, five (5) direct push locations were chosen for installation of permanent monitoring wells for long-term groundwater monitoring. As the hand auger and direct push borings outside the pump loop road encountered the apparent water table near or at the contact with in-situ geologic material, typically saprolite, the wells were installed with the intent to intercept that interval. Field observations indicated that the groundwater flow at the Site would mirror the pre-filling topography of the Site. Therefore, one additional monitoring well (MW-6) was installed approximately 200-feet downgradient of the release area and located to intercept the pre-construction topographic draw that slopes to the northeast across the Site. At this location MW-6 is to

serve as a downgradient monitoring well and intercept groundwater flow from the Site which will move preferentially along the saprolite or historical ground surface to the historical drainage, which is inferred to be the adjacent wet area to the east of the entrance driveway.

The installed wells consisted of 4-inch diameter schedule 40 PVC and 20 slot schedule 40 PVC screen with a well sand gravel pack and a bentonite clay seal. The permanent monitoring wells were permitted and installed by Odyssey. A summary of monitoring well selection and general construction details is presented below in Table 5.3.

**Table 5.3: Monitoring Well Installation Construction Specifications**

GEOPROBE™ ID	MONITORING WELL ID	DESCRIPTION	FINISHED DEPTH (FEET)	SCREEN INTERVAL (FEET)	WELL FINISH
GP-5	MW-1	Upgradient monitoring location	18.0	18.0 – 3.0	Stick-up
GP-7	MW-2	Downgradient monitoring location	18.0	18.0 – 3.0	Flush
GP-10	MW-3	Sidegradient monitoring location	23.0	23.0 – 8.0	Stick-up
GP-4	MW-4	Downgradient monitoring location	20.0	20.0 – 4.0	Flush
GP-8	MW-5	Sidegradient monitoring location (approx. 33-feet east of GP-8)	20.0	20.0 – 5.0	Flush
NA	MW-6	Downgradient/sentinel well	27.0	27.0 – 12.0	Stick-up

Detailed well construction logs and monitoring well permits are included in **Appendix E** and **Appendix F**, respectively.

#### 5.4 Surface Water Sampling

On March 12, 2018, Colonial collected three (3) surface water samples to evaluate surface water conditions at the ‘Ditch Confluence’ in the on-Site drainage channel and nearby water body, WBWR. Samples were analyzed for of TPH-DRO, TPH-GRO, and VOCs including fuel oxygenates and naphthalene. Sample collection was witnessed by MDE personnel.

Surface water samples were collected into a decontaminated sample collection cup then transferred into pre-preserved, laboratory-prepared bottle ware, and then placed in a cooler on ice. Appropriate chain of custody documentation accompanied the chilled samples to Caliber.

One sample, designated ‘Ditch Confluence’, was collected at in the on-Site drainage channel downgradient from the retention pond outfall that runs along the eastern side of the Site driveway, approximately 50-feet south of Charles Street. Two samples, designated “West Branch Winters Run – Upstream” and “West Branch Winters Run – Downstream,” were collected 15-feet upstream and 25-feet downstream of the observed drainage channel discharge into West Branch Winters Run, respectively. Analytical results of the surface water samples were non-detect for VOCs, TPH-GRO, and TPH-DRO and are summarized in **Table 8**. The laboratory analytical reports including chain of custody documentation and QA/QC summary are presented in **Appendix D**.

## 5.5 Groundwater Sampling

From March 12, 2018 to April 16, 2018, TRC and Colonial conducted several groundwater sampling events. Groundwater samples were collected from the on-Site potable supply well, from potable drinking water wells from 10 nearby residences, and from on-Site monitoring wells.

The laboratory analytical reports including chain of custody documentation and QA/QC summary are presented in **Appendix D**.

### 5.5.1 Bel Air Station Supply Well and Residential Sampling

On March 12, 2018, Colonial collected a sample of the Bel Air Station supply well. The sample was collected from the bathroom sink after the pressure tank was purged twice. The sample was contained in pre-preserved, laboratory prepped bottle ware, and placed in cooler on ice. The samples were submitted to Caliber under chain of custody for laboratory analysis of drinking water constituents by USEPA Method 524.2. Analytical results were non-detect for all compounds.

On March 16, 2018, residential potable drinking water well samples were collected from eleven residences immediately surrounding Bel Air Station. Samples were collected by TestAmerica, a Maryland certified public drinking water sampler, at the direction of TRC and witnessed by MDE and Harford County Health Department. Samples were collected from the pressure tank at each residence in pre-preserved, laboratory prepped bottle ware, and placed in cooler on ice. The samples were submitted to TestAmerica under chain of custody for laboratory analysis of drinking water constituents by USEPA Method 524.2. Analytical results of the 10 nearby residences were non-detect for tested compounds; below the Type I GWQS and the National Primary Drinking Water Standards (NPDWS) promulgated by the USEPA in accordance with the Code of Federal Regulations Title 40, Section 141 (40 CFR Section 141).

Analytical results are tabulated in **Table 7** and laboratory analytical reports are included as **Appendix D**. A table listing owner name, addresses, and available potable well specifications of the 10 sampled residential wells are included in **Appendix G**. The locations of the sample locations with respect to the Site is shown on **Figure 4**. TRC also completed a file review of available potable well records of wells within 0.5 miles of the Site at Harford County Health Department on May 23, 2018. A summary of the available residential well documentation is included in **Appendix G**. Files copied during the review are available upon request. Additional well survey and door-to-door canvassing will be completed, as necessary, based on the results of future residential well sampling as directed by the MDE in its May 15, 2018 letter.

### 5.5.2 Monitoring Well Sampling

The groundwater monitoring described in this section was conducted to evaluate groundwater conditions and TPH-DRO, TPH-GRO, and VOC concentrations in on-Site monitoring wells. The six (6) monitoring wells (MW-1 through MW-6) were sampled on April 5, 2018, and one (1) monitoring well (MW-2) was re-sampled on April 16, 2018.

Monitoring wells were sampled via low flow/micro-purge method or 3 volume purge sampling. A decontaminated stainless steel low flow pump and a disposable polyethylene tubing was used to sample groundwater. Field sampling personnel maintained a purge rate in a range of 0.1 to 0.5 liters per minute (L/min) without exceeding the well discharge rate. Utilizing a multi-parameter water quality meter, field

personnel monitored and recorded the pH, conductivity, temperature, dissolved oxygen, oxidation-reduction potential, and turbidity at set 5-minute intervals until the water quality parameters stabilized. Stabilization is indicated by three consecutive readings differing by less than 10 percent for each parameter (or +/-0.3 for pH). Three (3) volume purge was conducted at monitoring wells via a hand bailer or decontaminated stainless steel low-flow pump. Utilizing a multi-parameter water quality meter, field personnel monitored and recorded the pH, conductivity, temperature, dissolved oxygen, oxidation-reduction potential, and turbidity prior to sampling.

Prior to purging, the condition of each well was inspected, water levels were gauged, and background VOC concentration in the ambient air was measured and recorded using a PID. Samples were collected in pre-preserved, laboratory provided bottle ware and placed on ice in a cooler for storage and transport. Appropriate chain of custody documentation accompanied the chilled samples to Caliber for analysis.

On April 5, 2018, monitoring well MW-1 through MW-6 were sampled for analysis of TPH-DRO, TPH-GRO, and VOCs including fuel oxygenates and naphthalene. Groundwater samples at MW-1 through MW-5 were collected via low-flow method, and a three (3) volume purge and sample collection via hand bailer was conducted at MW-6 due to low groundwater yield.

Analytical results from the April 5, 2018 sampling event reported TPH-DRO concentrations exceeding the Type I GWQS of 47 µg/L at MW-2, MW-4, and MW-6 at concentrations of 280 µg/L, 220 µg/L, and 210 µg/L respectively. TPH-GRO concentrations were not detected above the laboratory PQL. Benzene concentrations were reported above the Type I GWQS of 5 µg/L at MW-2 at a concentration of 11 µg/L.

On April 16, 2018, MW-2 was resampled to confirm the benzene concentration detected in the April 5, 2018, sampling. The groundwater sample was collected following a three (3) volume purge with a decontaminated stainless steel pump. Field parameters were not measured during this event. Groundwater was sampled for VOCs including fuel oxygenates and naphthalene.

Analytical results from the April 16, 2018, sampling event reported a dissolved-phase benzene concentration above the Type I GWQS (5 µg/L) at MW-2 (59 µg/L).

Analytical results for both sampling events reported laboratory PQLs for above the Type 1 GWQS for TPH-DRO, TPH-GRO, and naphthalene. Laboratory PQLs for the next quarterly event, and subsequent future events, will meet or be below Type 1 GWQS for contaminants of concern.

#### **5.5.2.1 Public Notification**

On April 13, 2018, Colonial notified the MDE that groundwater analytical results at MW-2 reported a detection of benzene above notification limits (i.e., Type I GWQS). The detection of benzene above Type I GWQS in a designated high-risk groundwater use area requires notification of contamination by the MDE to the local health department and each owner of property within one-half mile of the Site. The Harford County Health Department assisted the MDE with addresses and providing a Site map of properties within a half mile radius. The MDE sent notification letters, dated April 26, 2018, to the property owners via certified mail notifying them of this release, providing options for private testing, and provided a fact sheet including Site history, environmental investigation and actions, current status, and contact information. Copies of the public notification letters are included in **Appendix B**. The list of notified property owners is summarized in **Appendix G**.

## 6.0 Conclusions & Recommendations

The Maryland Department of Environment (MDE), in Reports of Observations (ROOs) dated March 12, 2018, and April 4, 2018, directed Colonial Pipeline Company (Colonial) to submit a detailed **Subsurface Investigation Report** that summarizes the investigative activities conducted on those dates in response to evidence of a release of distillate products. Sections 2.0 through 5.0 have presented the Site description, physiographic setting, IRMs taken by Colonial, and a detailed accounting of the investigations conducted to date and the steps of the investigations process. Data summary tables and scaled Site maps showing sampling locations (e.g., post-remediation soil samples, soil borings, monitoring wells, and surface water) are included. This section presents the conclusions of the investigation, including a CSM for the impacts observed and makes recommendations for further actions that are based upon the results obtained.

The purpose of this report is to comply with MDE's directives. As discussed further below, Colonial has been able to confirm the source of release reported on March 7, 2018 and delineate the impact to soil and groundwater. In addition, during the process Colonial identified a previously unknown area that was impacted by an unrelated historical release and completed delineation of that impact as well (i.e., HA-3 LNAPL area). The CSM presents a model demonstrating the migration of released petroleum has been limited by Colonial facility engineering controls and the characteristics of the geological media at the Site. In addition, a groundwater monitoring network that is appropriate for Site conditions has been installed for continued assessment of the potential migration of the released materials.

### 6.1 Conclusions

The conclusions of the investigations detailed in this report are:

1. The distillate product released was captured by the Colonial engineering controls (OWS and secondary containment pond) and subsequent sampling of environmental media (soil, groundwater, surface water) indicates there has been no discharge of petroleum beyond the Site boundaries or to sensitive receptors;
2. Colonial has identified the source of the distillate release and completed IRM to remediate the soil conditions. Additional soil excavation is ongoing;
3. Colonial has identified the source of the distillate release and completed soil investigations to quantitatively delineate the soil conditions to the MDE RCS/NRCS;
4. Colonial has identified a second source at the Site, a weathered gasoline suspected to be from a historical event, and completed initial IRM and quantitative investigations to delineate the soil conditions to the MDE RCS/NRCS;
5. Colonial has completed groundwater investigation that confirms dissolved-phase constituents of concern that may be associated with both sources are present in groundwater and delineates the constituents associated with both source areas to the MDE GWQS;
6. Investigation by Colonial did not detect petroleum uphill/upgradient from the Site;

7. Investigation by Colonial confirmed impact along the primary pipelines (Line 03 and Line 36) traversing the Site, specifically compromised (asphaltic) pipeline coating and minor soil impact, that has been vertically delineated and horizontally delineated. Pipeline coating in need of removal and replacement was observed approximately 60 feet to the north and south of the release point;
8. The groundwater assessment conducted was appropriate for the Site geological conditions and performed in accordance to applicable MDE requirements, including the 1,000 feet radius potable sampling and ½ mile notifications and record search;
9. The 1,000 feet radius potable sampling conducted on March 12 and 16, 2018, which included the Colonial facility well approximately 130-feet downhill from the source areas, did not detect related petroleum hydrocarbons at any of 11 potable wells sampled;
10. Colonial has completed IRMs to eliminate the potential pathways to sensitive receptors. Soils within the pump station that were impacted by the March 2018 release have been remediated to the MDE RSC/NRSC, vertically delineated, or targeted for future removal through the ongoing Site work. Soils in the southwest drainage channel impacted by the March 2018 release have been remediated by excavation to the MDE RSC/NRSC, with the exception of one location, PX-OS-16. This sample location has a TPH-DRO concentration of 800 mg/kg, relative to the NRCS of 620 mg/kg, but has been capped with the 60-mil HDPE liner;
11. Colonial has installed a groundwater monitoring network that includes an appropriately placed downgradient well, MW-6, that will serve to monitor the potential for future migration of constituents of concern;
12. The groundwater network has detected dissolved levels of TPH-DRO at concentrations over the MDE GWQS in three (3) wells, MW-2 at 280 µg/L, MW-4 at 220 µg/L, and MW-6 at 210 µg/L, just over the PQL. VOCs were not detected in MW-4 and MW-6. Concentration trends from future quarterly groundwater sampling events will be evaluated to assess the source of TPH-DRO concentrations in these wells;
13. The groundwater network has detected dissolved levels of benzene exceeding the MDE Type I GWQS at GP-7/MW-2 and no other groundwater sample contained detectable levels of any VOC;
14. GP-7/MW-2 is the closest monitoring well to the recent diesel release and to the areas of IRM. The VOCs detected in GP-7/MW-2 may be the result of historical site operations or the result of the nearby recent release and migration of petroleum products through the yard drain system and to the OWS;
15. LNAPL has not been measured in monitoring wells or temporary Geoprobe points.
16. VOC headspace readings and the laboratory results for the analysis of soil sample in the 10 Geoprobe soil borings did not indicate the presence of LNAPL or LNAPL diffusion near the water table interface.

17. The hydraulically downgradient groundwater to surface water discharge point is the drainage ditch immediately east-southeast of the facility drive that has been sampled ('Ditch Confluence' surface water sample) and demonstrated to attain Type I GWQC;
18. Other than the ongoing recoat evaluation work in the pump station loop, no further excavation of soils is required due to the release discovered on March 7, 2018. For compaction purposes, the pump station loop will be backfilled with clean soil;
19. The historical conditions in the HA-3 LNAPL area are stabilized, delineated, and will require additional soil remediation by excavation or in-situ means;
20. Regular groundwater monitoring of the network, most specifically GP-7/MW-2, the downgradient well MW-6, and the facility potable well will allow determination of the source of the GP-7/MW-2 dissolved-phase VOC concentration and continued protection of regional groundwater and surface water assets.

## 6.2 Conceptual Site Model

Based on the conclusions above and the evidence presented in this report a CSM for the Site has been developed. Three (3) geologic CSM cross-sections that present known Site conditions are included as **Figure 13**, **Figure 14**, and **Figure 15**. The cross-section locations are shown on **Figure 12**. Reference to the cross-sections during review of the CSM is recommended.

The geologic setting has been presented in detail in Section 3.2. The Site is located in the Piedmont Physiographic Region, an area of gently rolling hills underlain by bedrock and capped by the weathered bedrock residuum, or saprolite, which is known to be thicker beneath draw settings such as the Site. Line 03 was first constructed into a natural draw extending southeast from the West Branch Winters Run in the early 1960's and then the Bel Air Pump Station was constructed in the mid-1960s. Prior to pipeline construction, the Site location was the upper elevation reach of a native southwest to northeast trending draw situated upon the Wissahickon Schist with a surface cross-section from north to south that resembled a shallow 'V'. It appears a significant volume of cut-and-fill earthwork was required to construct the pump station. Before any facility buildings, utilities, or piping were completed the natural shallow 'V' was enlarged into a rectangular 'U' morphology by excavation of large volumes of soil, saprolite, and bedrock. The rectangular 'U' was then filled with a uniform, imported fill that was selected by geotechnical engineers to provide competent and uniform support of the pumping station and pipeline facilities and, to the maximum extent, to eliminate the potential for differential settling that might stress the facility infrastructure. Comparison of the topographic contours shown on **Figure 2** – Aerial Site Plan with Current Topography and **Figure 3** - Aerial Site Plan with Historical Topography indicates the size of the area where these topographic changes were made. There were significant changes in slope to the southwest-west and southeast of the pumping station where the majority of construction cut and material removal from the Site occurred. In addition, **Figure 3** shows the pre-construction topographic draw that originated above (southwest of) the Site, likely served as a wet-weather conveyance, and made confluence with the other channel in the lowland northeast of the operations area of the Site.

**Figure 13** – Cross-Section A-A' is a presentation of the Site geology and select anthropogenic conditions along the path of the historical valley drainage. The historical ground surface, represented by a red line,

was not disturbed throughout the eastern 2/3 of the cross-section, but was removed as a construction 'cut' at the western end. Boring/wells GP-5/MW-1, GP-4/MW-4, and MW-6 were specifically located to intersect the historical drainage channel as shown on **Figure 3**. Twenty-seven (27) soil borings have been conducted at the Site, and physical evidence of the historic ground surface was encountered at only two (2) locations, both within the historical valley drainage channel. In GP-4/MW-4, a gravel lens likely remnant from the base of the historical channel and wood fragments were encountered immediately above saprolite. In MW-6, a well-sorted sand with no clay and quartz fragments, again likely remnant from the base of the historical channel, were encountered immediately above saprolite. Groundwater levels at each boring are shown on the cross-section. In monitoring wells these elevations represent the water level during the April 5, 2018 well sampling event. For soil borings, they represent the field interpreted depth of the water table based on soil sample logging. Although the soil boring observations and water level elevations in the monitoring wells are not quantitatively directly comparable, the trend of groundwater flow from highest to lowest, southwest to northeast, along the trend of the central drainage feature of the historical valley to the inferred discharge area at the eastern lowlands, is clearly identifiable.

**Figure 14** – Cross-Section B-B' and **Figure 15** – Cross-Section C-C' are presentations of the Site geology and select anthropogenic conditions generally perpendicular to the path of the historical valley drainage from the perspective of looking down the valley to the east. The historical ground surface 'V' and excavated rectangular 'U' (imported fill to saprolite contact) are illustrated on both. **Figure 14** – Cross-Section B-B' transects the pump loop road and therefore contains illustrations of more anthropogenic features of the pump station. **Figure 15** – Cross-Section C-C' is important as it contains a representation of the former valley drainage channel (Historical Soil/Stream Bed Zone) that was documented by field observations at GP-4/MW-4. The water elevation symbols on **Figure 15** confirm the CSM water flow pattern of highest elevations to left and right flowing to the lowest water table elevation at the center of the historical valley. **Figure 14** – Cross-Section B-B' is a representation of the geological conditions at the pump station loop. As shown on **Figure 14** the pump station loop is directly above the historical valley drainage channel. The representations of the water table on **Figure 14** are variable due to the anthropogenic features and may not be dependable for interpretation of overall flow direction. The water table was observed at higher elevations within the pumping station loop area because the surface contours in this area are engineered to capture surface water, gravel covered to promote percolation and collection by the yard drains and subsequent separation by the oil/water separator if necessary. The water elevation at GP-10/MW-3 is lower. This is likely due to the perturbations to conditions associated with two (2) former underground storage tanks that were at this location. The tank locations are shown on **Figure 12** – Cross-Section Location Map. The tanks were originally installed to a depth of 14-feet below surface as shown on **Figure 14** and were removed circa 2010, as was reported to the MDE in 2010.

Overall groundwater flow at the Site has been quantified by well survey and static water level measurements of the monitoring wells at the Site. **Figure 11** is a presentation of the quantified flow direction. The flow direction is generally down valley to the northeast but a southeasterly component is also indicated due to GP-10/MW-3. As stated above, the southeasterly component presentation is associated with the perturbations cause by historical storage tanks. Vertical flow within the fill area is controlled at the imported fill to saprolite boundary where the dense saprolite inhibits downward flow

and induces flow along the contact which slopes down valley to the northeast as shown on **Figure 13 – Cross-Section A-A'**. The water level perturbations shown on Cross-Section B-B', which are caused by pump station engineered features (gravel inside pump loop road and former storage tanks), are present, but the in situ 'overprint' controls flow as water flows along the fill-to-saprolite contact down valley to the northeast. The 'overprint' can be seen on Cross-Section C-C' (**Figure 15**) approximately 60 feet further downslope where the fill-to-saprolite contact matches the historical ground surface at GP-4/MW-4. Overall geological conditions are further illustrated by Cross-Section A-A' (**Figure 13**), where the fill-to-saprolite contact matches the historical ground surface down valley from GP-4/MW-4 through to the lowlands, and where the water table and historic flow channel intersect surface water.

With regard to potential groundwater impact, dissolved-phase VOC constituents have been detected in GP-7/MW-2 and TPH-DRO has been detected in GP-4/MW-4, GP-7/MW-2, and MW-6, just above the PQL for TPH-DRO. The TPH-DRO detections are uniform through these three (3) locations, which may be indicative of pre-release conditions. The TPH-DRO occurrence has been delineated by the 'Ditch Confluence' confluence surface water sample, which did not contain detectable levels of TPH-DRO. If the VOCs detected at GP-7/MW-4 are mobile, then the groundwater flow will follow the geological 'overprint' and will flow toward the downgradient well MW-6 as shown by **Figure 13 - Cross Section A-A'**.

Although soil impact from the release has been vertically delineated, remediated to the MDE RSC/NRSC, or capped, impact from residual weathered gasoline in the vicinity of HA-3 appear to have permeated portions of the compacted imported fill beneath the pump station loop and made contact with the groundwater. As the native clayey saprolite is denser than the fill, the impact has been spread laterally with the flow of groundwater along the fill-to-saprolite contact and the fill-to-historical-ground-surface contacts. The relative location of the facility potable well is shown on all three (3) cross sections, and the lack of detection of TPH-DRO or VOCs in the facility potable well confirms that the impact has not appreciably penetrated deeper than these contacts. Based on this CSM, it has been demonstrated that the groundwater impact from the pump station has been delineated. Monitoring of MW-2 and Site wells will continue on a quarterly basis, and the need for additional wells will be evaluated.

### 6.3 Recommendations

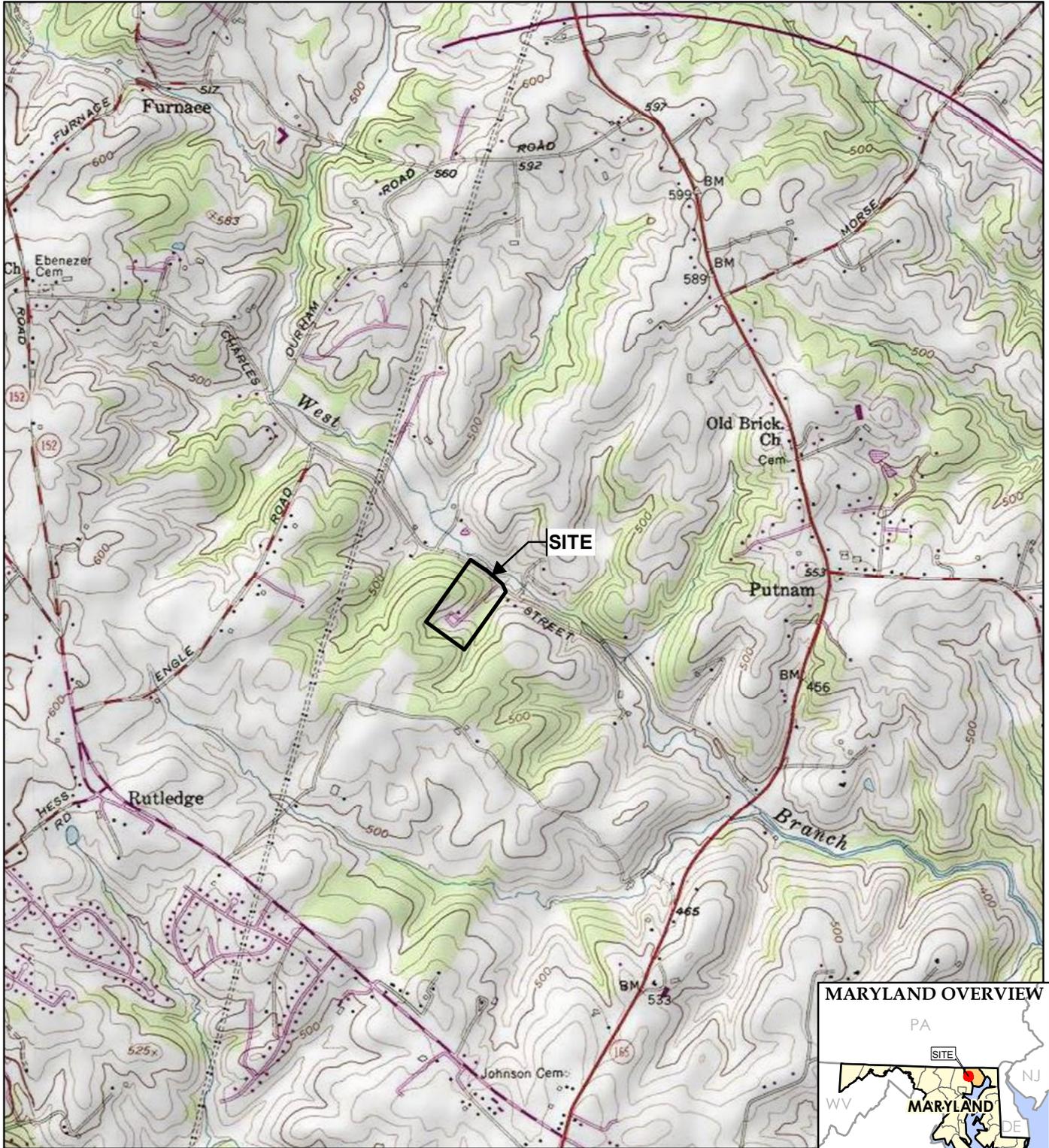
Based on the evidence presented herein, soil and water impacts are apparent in the immediate vicinity of the pump station loop and ancillary equipment including the OWS. As requested in the MDE ROOs (Appendix A), TRC has made the following recommendations for further actions:

1. Implement a regular monitoring and observation program of all monitoring wells and the lowland surface water in an effort to minimize the potential for future impacts to a sensitive receptor, including:
  - 1.1 Quarterly monitoring of the surface water at the 'Ditch Confluence' sample location for TPH-DRO and VOCs to evaluate concentration trends and the continued evidence for attenuation of dissolved-phase concentrations before impact to surface water;
  - 1.2 Quarterly monitoring of site monitoring wells for TPH-DRO, TPH-GRO, and VOCs, including fuel oxygenates and naphthalene, to confirm continued delineation of groundwater impacts

- and to develop groundwater remediation plans if monitored natural attenuation does not appear effective after source removal is complete;
- 1.3 As directed by MDE, quarterly monitoring of select residential wells and the on-Site supply well for analysis by USEPA Method 524.2 (Appendix B); and
  - 1.4 As directed by MDE, monthly gauging of the Site monitoring wells;
  2. Consider the need for additional remediation of groundwater if impact is observed at the 'Ditch Confluence' sample location.
  3. Complete additional remediation of the HA-3 LNAPL area. Although due to the proximity to the pump station loop, physical removal of all impacted soil may be technically infeasible or impractical.

## FIGURES

Figure 1	Site Location Map
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Figure 3	Aerial Site Plan with Pre-Development Topography
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Figure 5	Site Plan
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Figure 10	Soil Boring Investigation
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Figure 12	Geologic Conceptual Site Model Cross Section Location Map
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BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.



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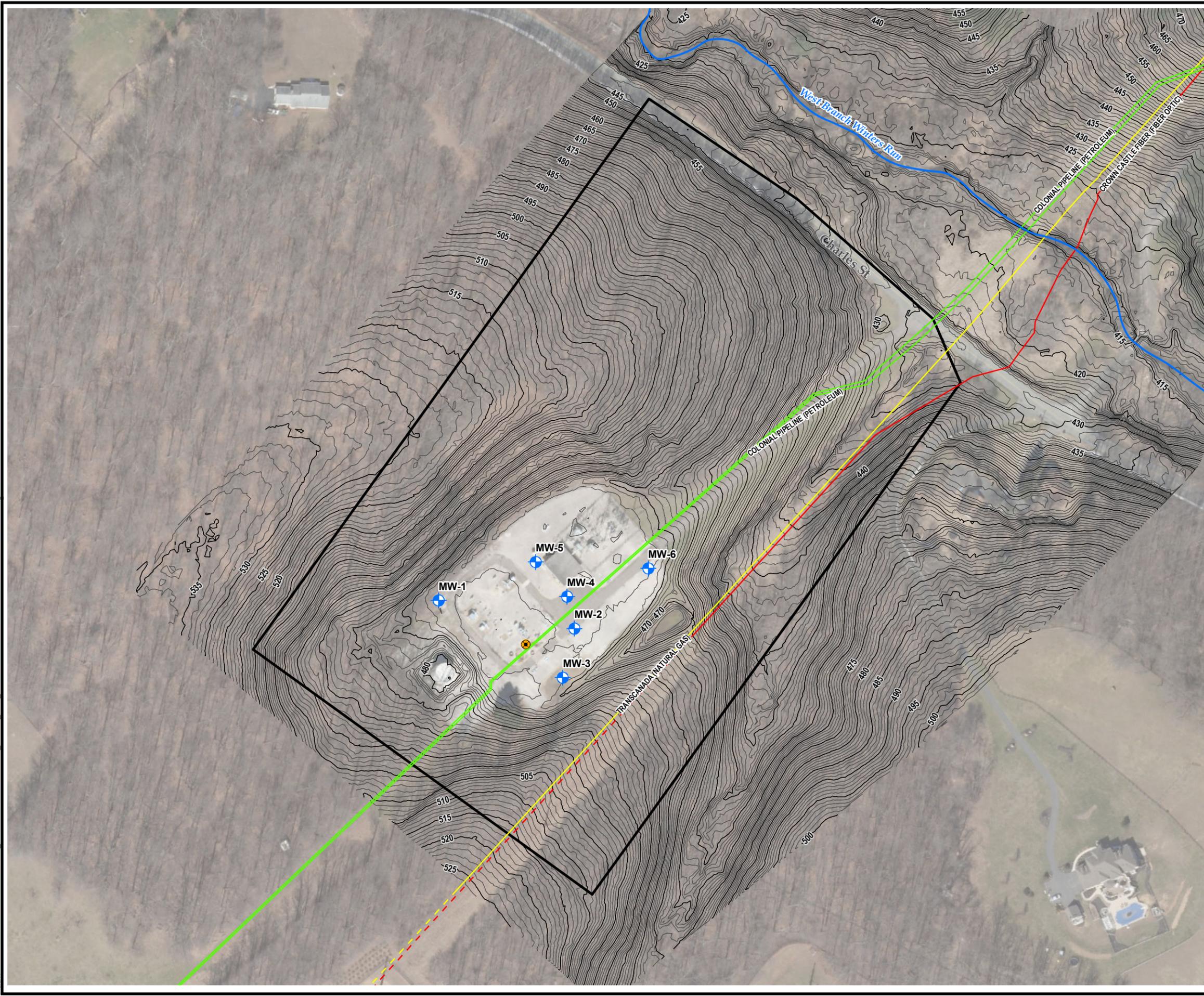
TRC - GIS

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

TITLE: **SITE LOCATION MAP**

DRAWN BY:	M. LOVELACE
CHECKED BY:	B. HECKER
APPROVED BY:	D. CARLSON
DATE:	MAY 2018
PROJ. NO.:	299980.0000
FILE:	299980-1000-001slm.mxd

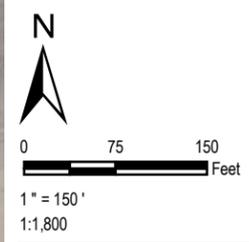
**FIGURE 1**



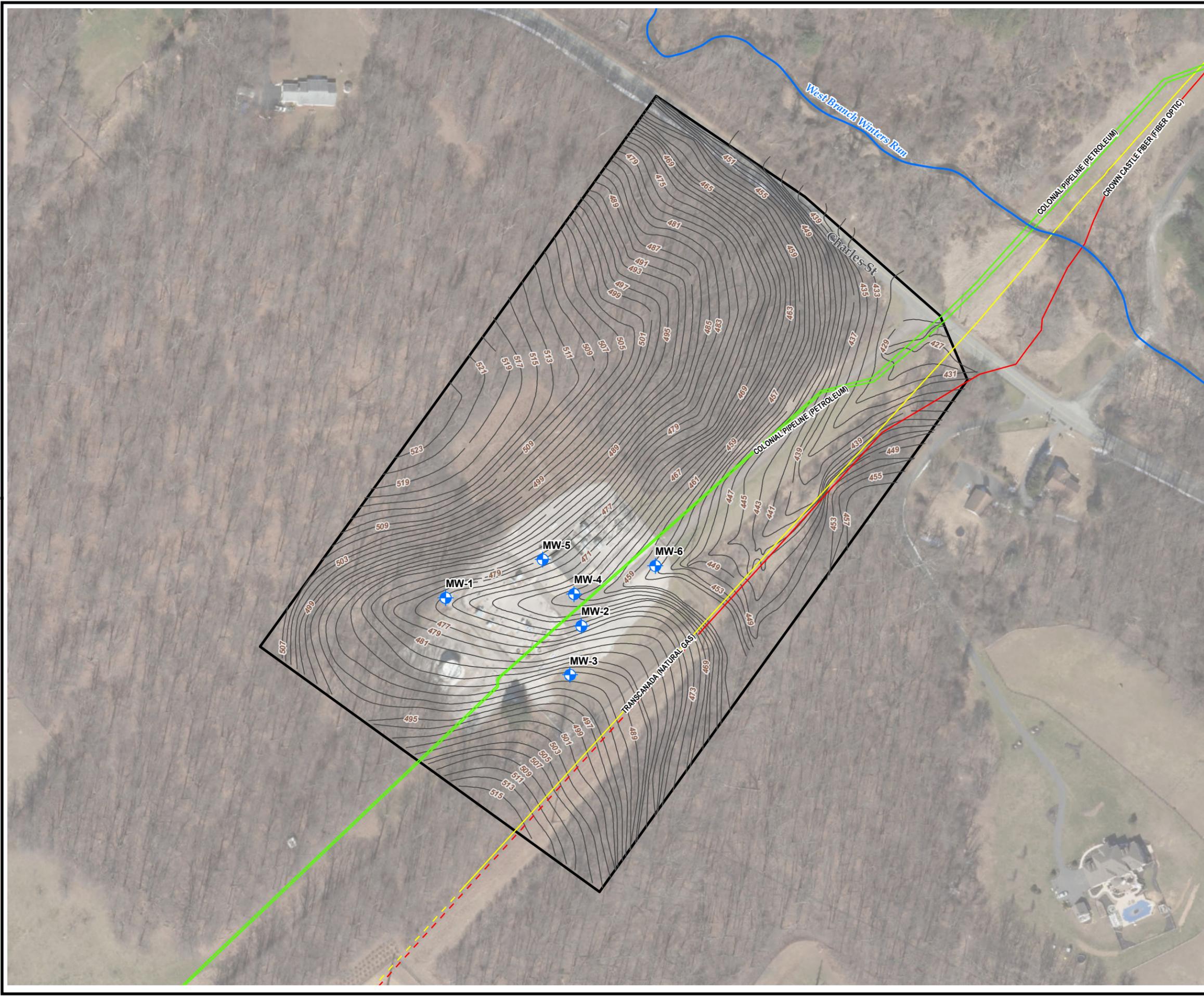
**LEGEND**

- APPROXIMATE RELEASE LOCATION
- CREEK
- NATURAL GAS PIPELINE
- FIBER OPTIC CABLES
- PETROLEUM PIPELINE
- 1' MINOR CONTOUR
- 5' MAJOR CONTOUR
- PROPERTY BOUNDARY

- NOTES**
1. BASE MAP IMAGERY FROM MARYLAND IMAP WEB SERVICE LAYER, 2016/2017.
  2. UTILITY LINE LOCATIONS ARE APPROXIMATE BASED ON SURFACE MARKINGS AND SITE OBSERVATIONS.



<b>COLONIAL PIPELINE COMPANY BEL AIR PUMP STATION FALLSTON, HARFORD COUNTY, MARYLAND</b>		
<b>AERIAL SITE PLAN WITH CURRENT TOPOGRAPHY</b>		
DRAWN BY:	M. LOVELACE	PROJ. NO.: 299980.0000
CHECKED BY:	B. HECKER	<b>FIGURE 2</b>
APPROVED BY:	D. CARLSON	
DATE:	JUNE 2018	
		1601 Market Street, Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122
299980-0000-002.mxd		



**LEGEND**

-  MONITORING WELLS
-  CREEK
-  NATURAL GAS PIPELINE
-  FIBER OPTIC CABLES
-  PETROLEUM PIPELINE
-  PROPERTY BOUNDARY
-  2' ELEVATION CONTOUR

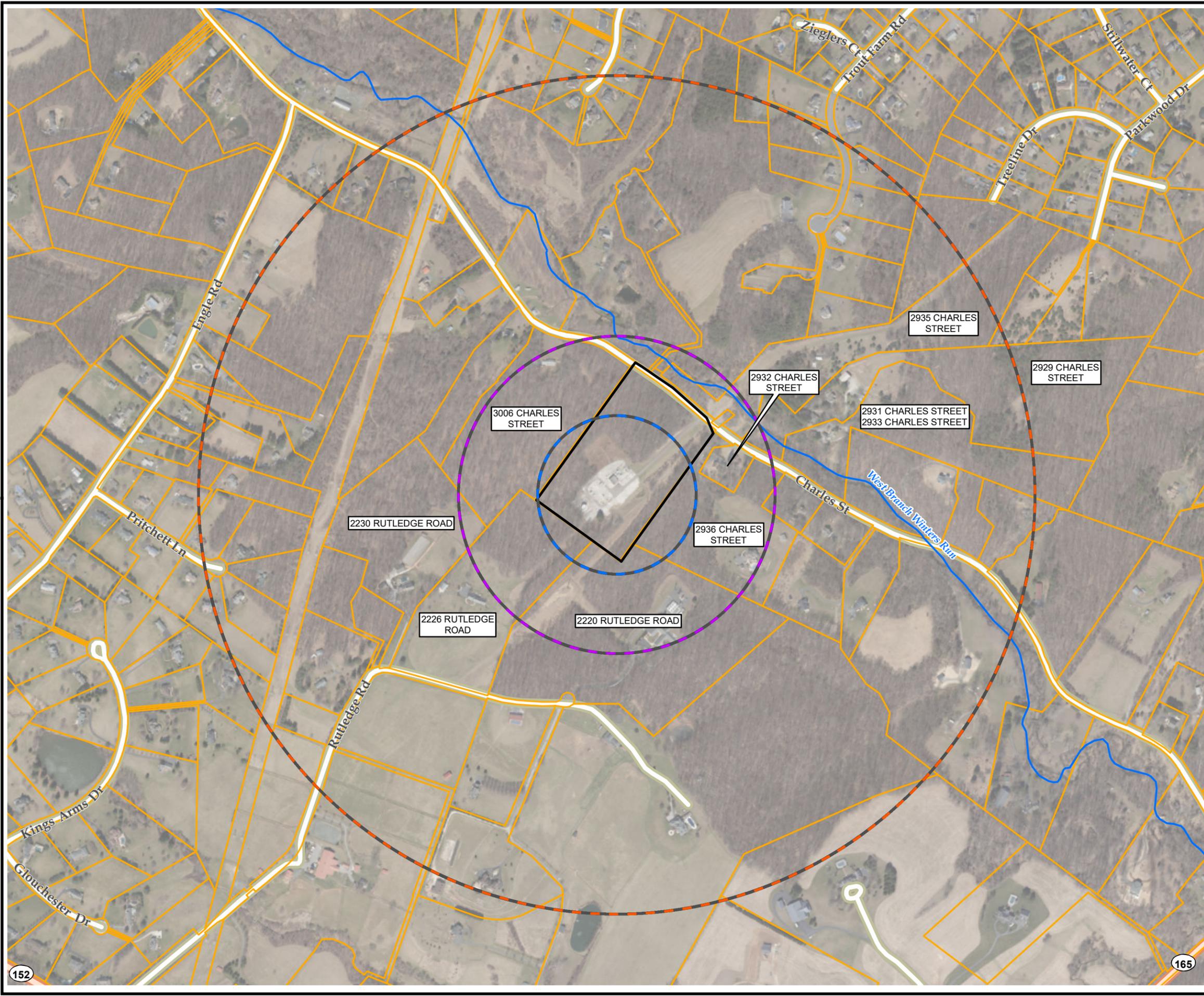
**NOTES**

1. BASE MAP IMAGERY FROM MARYLAND IMAP WEB SERVICE LAYER, 2016/2017.
2. UTILITY LINE LOCATIONS ARE APPROXIMATE BASED ON SURFACE MARKINGS AND SITE OBSERVATIONS.



0 75 150  
Feet  
1" = 150'  
1:1,800

<b>COLONIAL PIPELINE COMPANY BEL AIR PUMP STATION FALLSTON, HARFORD COUNTY, MARYLAND</b>	
<b>AERIAL SITE PLAN WITH PRE-DEVELOPMENT TOPOGRAPHY</b>	
DRAWN BY: M. LOVELACE	PROJ. NO.: 299980.0000
CHECKED BY: B. HECKER	<b>FIGURE 3</b>
APPROVED BY: D. CARLSON	
DATE: JUNE 2018	
 <div style="float: right; font-size: x-small;">         1601 Market Street, Suite 2555          Philadelphia, PA 19103          Phone: 215.563.2122       </div>	
299980-0000-003.mxd	



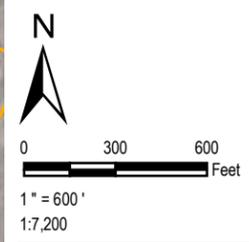
**LEGEND**

- CREEK
- PROPERTY BOUNDARY
- HARFORD COUNTY PARCEL BOUNDARIES
- 500' RADIUS
- 1000' RADIUS
- HALF-MILE RADIUS

**RESIDENTIAL WELL SAMPLING LOCATION**

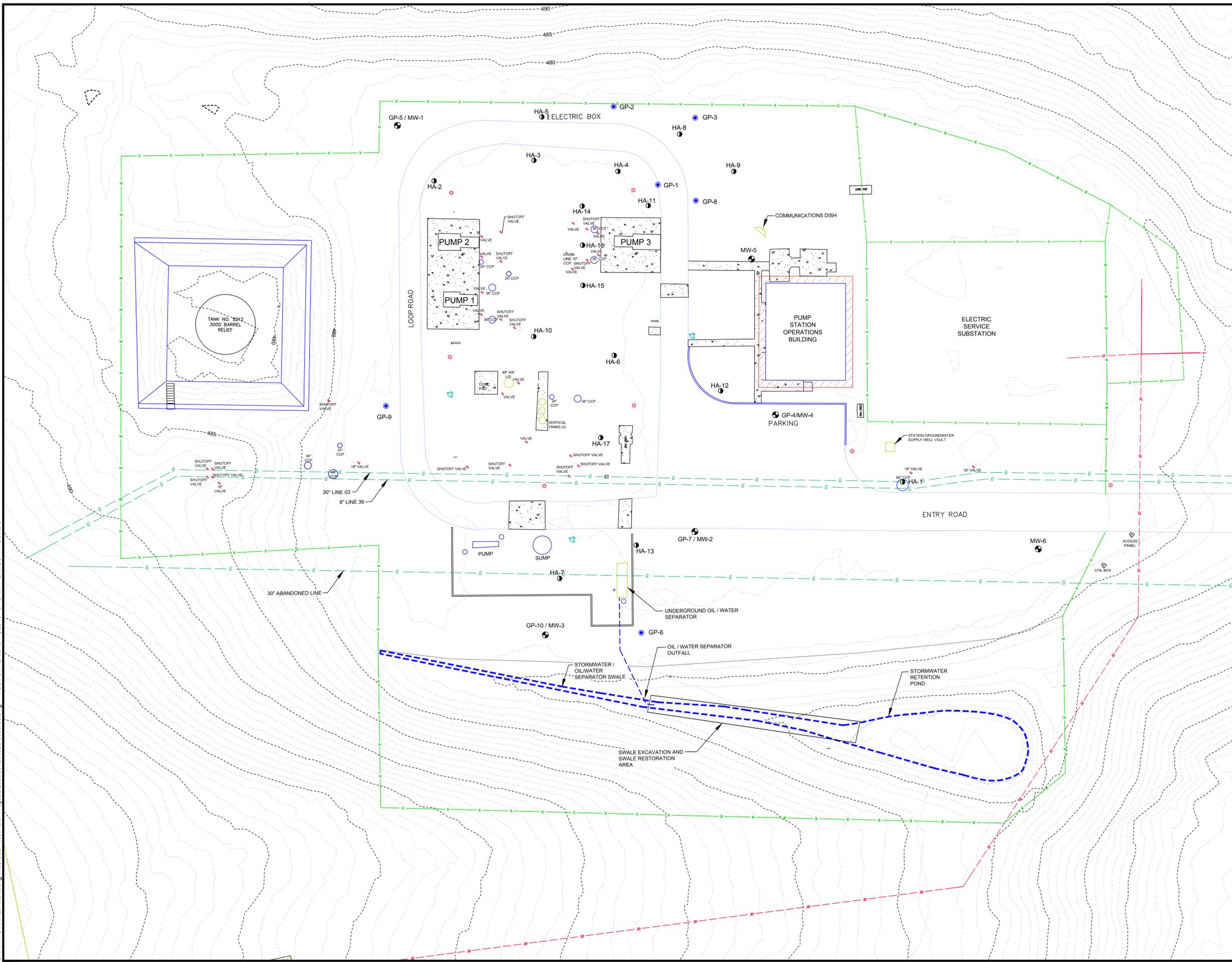
STREET ADDRESS

- NOTES**
1. BASE MAP IMAGERY FROM MARYLAND I MAP WEB SERVICE LAYER, 2016/2017.
  2. SEE HARFORD COUNTY HEALTH DEPARTMENT RADIUS MAP IN APPENDIX B AND APPENDIX G FOR DETAIL.



<b>COLONIAL PIPELINE COMPANY BEL AIR PUMP STATION FALLSTON, HARFORD COUNTY, MARYLAND</b>	
<b>SURROUNDING PROPERTIES MAP</b>	
DRAWN BY: M. LOVELACE	PROJ. NO.: 299980.0000
CHECKED BY: B. HECKER	<b>FIGURE 4</b>
APPROVED BY: D. CARLSON	
DATE: JUNE 2018	
1601 Market Street, Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122	
299980-0000-004.mxd	

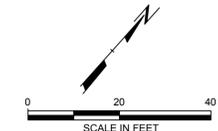
2034 ... USER: d... ATTACHED XREFS: ... ATTACHED IMAGES: ... DRAWING NAME: X:\Drafting Files\Cad Files\Projects\299980.0000.03.dwg ... PLOT DATE: June 11, 2018 - 6:18PM ... LAYOUT: FIGURE 5



**LEGEND**

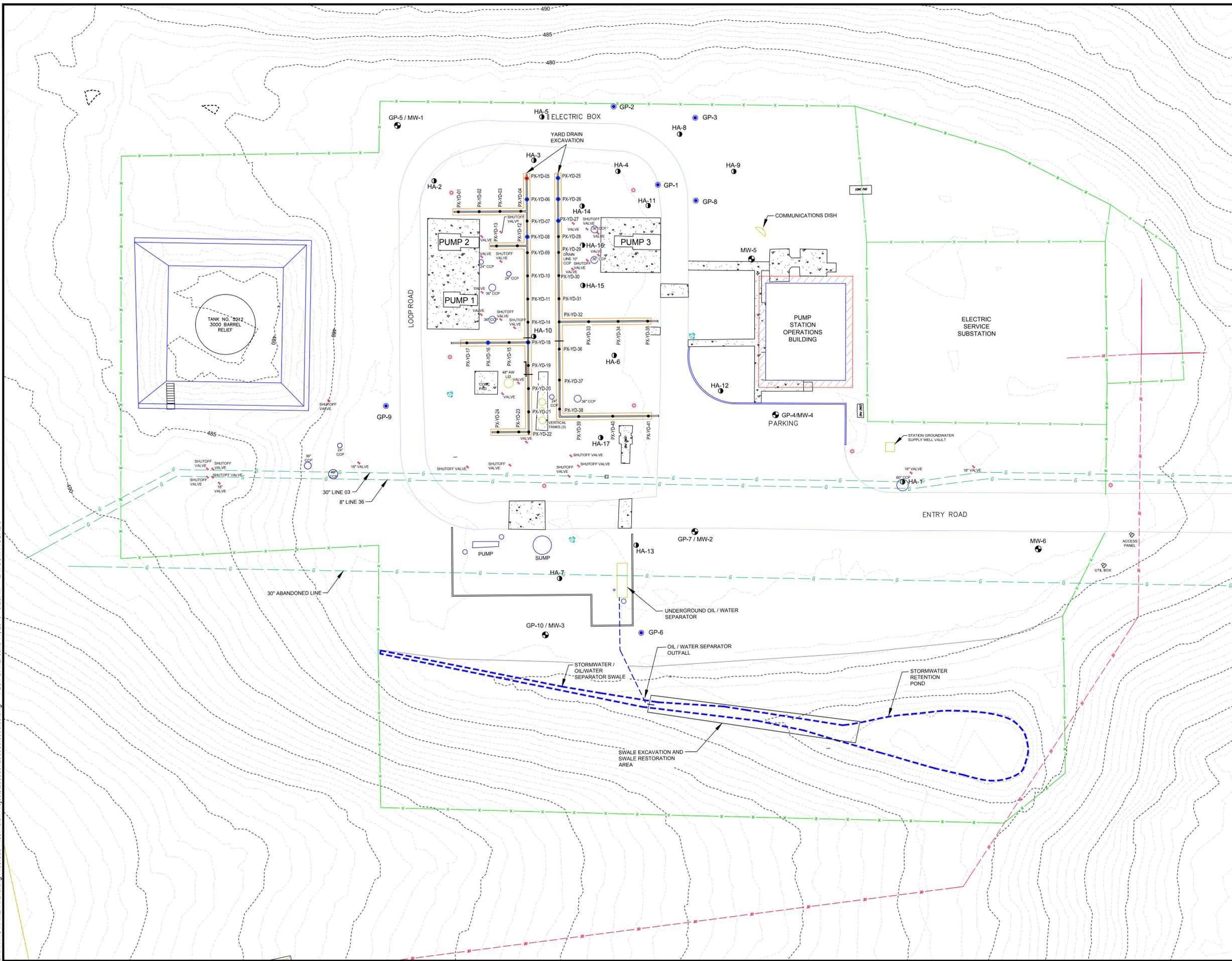
	GP-8	GEOPROBE BORING
	MW-5	MONITORING WELL
	HA-9	HAND AUGER BORING
		LIGHT POST
		HYDRANT
		FENCE
		OVERHEAD ELECTRIC LINE
		UNDERGROUND GAS LINE

- NOTES:**
1. LOCATION OF STORMWATER SWALE, STORMWATER RETENTION POND, AND HAND AUGER POINTS ARE APPROXIMATE.
  2. VALVE AND SHUTOFF VALVE LOCATIONS ARE SURVEYED GENERAL POINTS OF REFERENCE FOR PUMP STATION CONTROL POINTS AND PROCESS CONTROL FEATURES.
  3. SEE FIGURE 12 FOR APPROXIMATE PUMPING STATION LOOP LOCATION



PROJECT:		COLONIAL PIPELINE COMPANY BEL AIR PUMP STATION FALLSTON, HARFORD COUNTY, MARYLAND	
TITLE:		SITE PLAN	
DRAWN BY:	D. SIEWERT/O. DE LEON	PROJ. NO.:	299980.0000.0000
CHECKED BY:	B. HECKER	<b>FIGURE 5</b>	
APPROVED BY:	D. CARLSON		
DATE:	JUNE 2018		
		1601 Market Street Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122	
FILE NO.:	299980.0000.03.dwg		

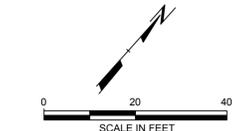
2034 ... USER: ... ATTACHED XREFS: ... DRAWING NAME: X:\Drafting Files\Cad Files\Projects\299980\0000\03.dwg ... PLOT DATE: June 11, 2018 - 6:23PM ... LAYOUT: FIGURE 6



**LEGEND**

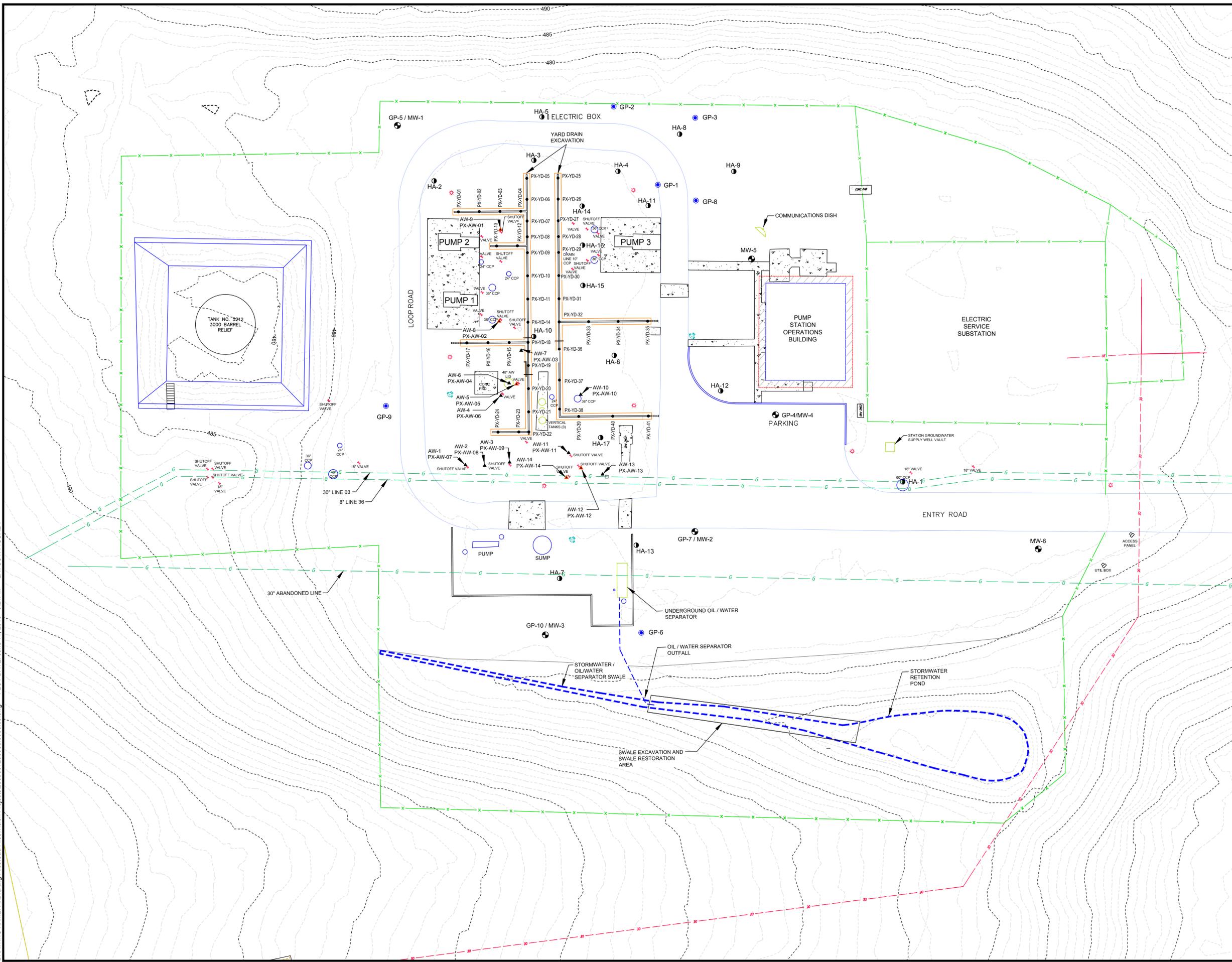
● GP-8	GEOPROBE BORING
● MW-5	MONITORING WELL
● HA-9	HAND AUGER BORING
● PX-YD-27	YARD DRAIN EXCAVATION SAMPLE
○	SOIL TPH-DRO/TPH-GRO EXCEEDANCE
○	SOIL VOC & TPH-DRO/TPH-GRO EXCEEDANCE
*	LIGHT POST
⊕	HYDRANT
---	FENCE
---	OVERHEAD ELECTRIC LINE
---	UNDERGROUND GAS LINE

- NOTES:**
1. LOCATION OF YARD DRAIN EXCAVATION, STORMWATER SWALE, STORMWATER RETENTION POND, HAND AUGER SOIL BORINGS, AND POST EXCAVATION SOIL SAMPLES ARE APPROXIMATE.
  2. VALVE AND SHUTOFF VALVE LOCATIONS ARE SURVEYED GENERAL POINTS OF REFERENCE FOR PUMP STATION CONTROL POINTS AND PROCESS CONTROL FEATURES.
  3. POST EXCAVATION SOIL SAMPLES WERE EVALUATED AGAINST THE MARYLAND DEPARTMENT OF ENVIRONMENT (MDE) SOIL RESIDENTIAL CLEAN-UP STANDARD (RCS) FOR VOLATILE ORGANIC COMPOUNDS (VOCs), AND NON-RESIDENTIAL CLEAN-UP STANDARD FOR TOTAL PETROLEUM HYDROCARBON DIESEL RANGE ORGANICS (TPH-DRO) AND TOTAL PETROLEUM HYDROCARBON GASOLINE RANGE ORGANICS (TPH-GRO).



PROJECT: COLONIAL PIPELINE COMPANY BEL AIR PUMP STATION FALLSTON, HARFORD COUNTY, MARYLAND	
TITLE: YARD DRAIN POST-EXCAVATION SAMPLE LOCATIONS	
DRAWN BY: D. SIEWERT/O. DE LEON	PROJ. NO.: 299980.0000.0000
CHECKED BY: B. HECKER	<b>FIGURE 6</b>
APPROVED BY: D. CARLSON	
DATE: JUNE 2018	
1601 Market Street Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122	
FILE NO.: 299980.0000.03.dwg	

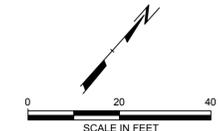
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**LEGEND**

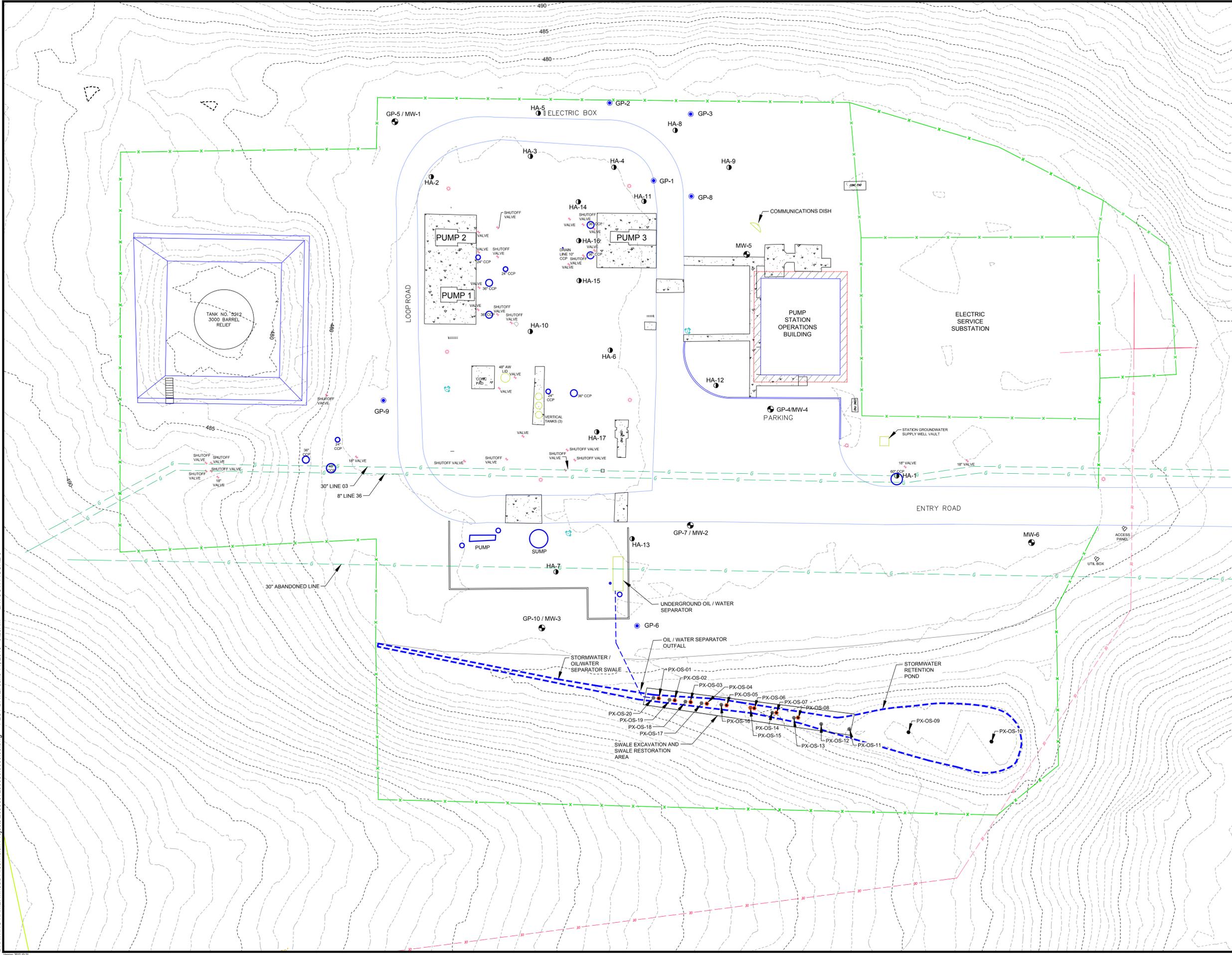
● GP-8	GEOPROBE BORING
● MW-5	MONITORING WELL
● HA-9	HAND AUGER BORING
● PX-YAD-27	YARD DRAIN EXCAVATION SAMPLE
▲ PW-AW-13	PX-ACCESS WELL SAMPLE LOCATION
▲	SOIL TPH-DRO/TPH-GRO EXCEEDANCE
★	LIGHT POST
⊕	HYDRANT
— x —	FENCE
— - - - -	OVERHEAD ELECTRIC LINE
— - - - -	UNDERGROUND GAS LINE

- NOTES:**
1. LOCATION OF YARD DRAIN EXCAVATION, STORMWATER SWALE, STORMWATER RETENTION POND, HAND AUGER SOIL BORINGS, AND POST EXCAVATION SOIL SAMPLES ARE APPROXIMATE.
  2. VALVE AND SHUTOFF VALVE LOCATIONS ARE SURVEYED GENERAL POINTS OF REFERENCE FOR PUMP STATION CONTROL POINTS AND PROCESS CONTROL FEATURES.
  3. AN ACCESS WELL IS AN OBSERVATION PORT TO SHALLOW SUBSURFACE VALVES AND CONTROL POINTS.
  4. POST EXCAVATION SOIL SAMPLES WERE EVALUATED AGAINST THE MARYLAND DEPARTMENT OF ENVIRONMENT (MDE) SOIL RESIDENTIAL CLEAN-UP STANDARD (RCS) FOR VOLATILE ORGANIC COMPOUNDS (VOCs), AND NON-RESIDENTIAL CLEAN-UP STANDARD FOR TOTAL PETROLEUM HYDROCARBON DIESEL RANGE ORGANICS (TPH-DRO) AND TOTAL PETROLEUM HYDROCARBON GASOLINE RANGE ORGANICS (TPH-GRO).



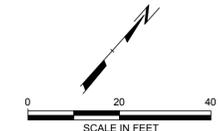
PROJECT:		COLONIAL PIPELINE COMPANY BEL AIR PUMP STATION FALLSTON, HARFORD COUNTY, MARYLAND	
TITLE:		ACCESS WELL POST-EXCAVATION SAMPLE LOCATIONS	
DRAWN BY:	D. SIEWERTO, DE LEON	PROJ. NO.:	299980.0000.0000
CHECKED BY:	B. HECKER	<b>FIGURE 7</b>	
APPROVED BY:	D. CARLSON		
DATE:	JUNE 2018		
		1601 Market Street Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122	
FILE NO.:	299980.0000.03.dwg		

2034 -- USER: Odion -- ATTACHED REFS: -- ATTACHED IMAGES: --  
 DRAWING NAME: M:\Cad Files\Vision Projects\299980\299980\_0000\_03.dwg -- PLOT DATE: June 11, 2018 - 9:29AM -- LAYOUT: FIGURE 8



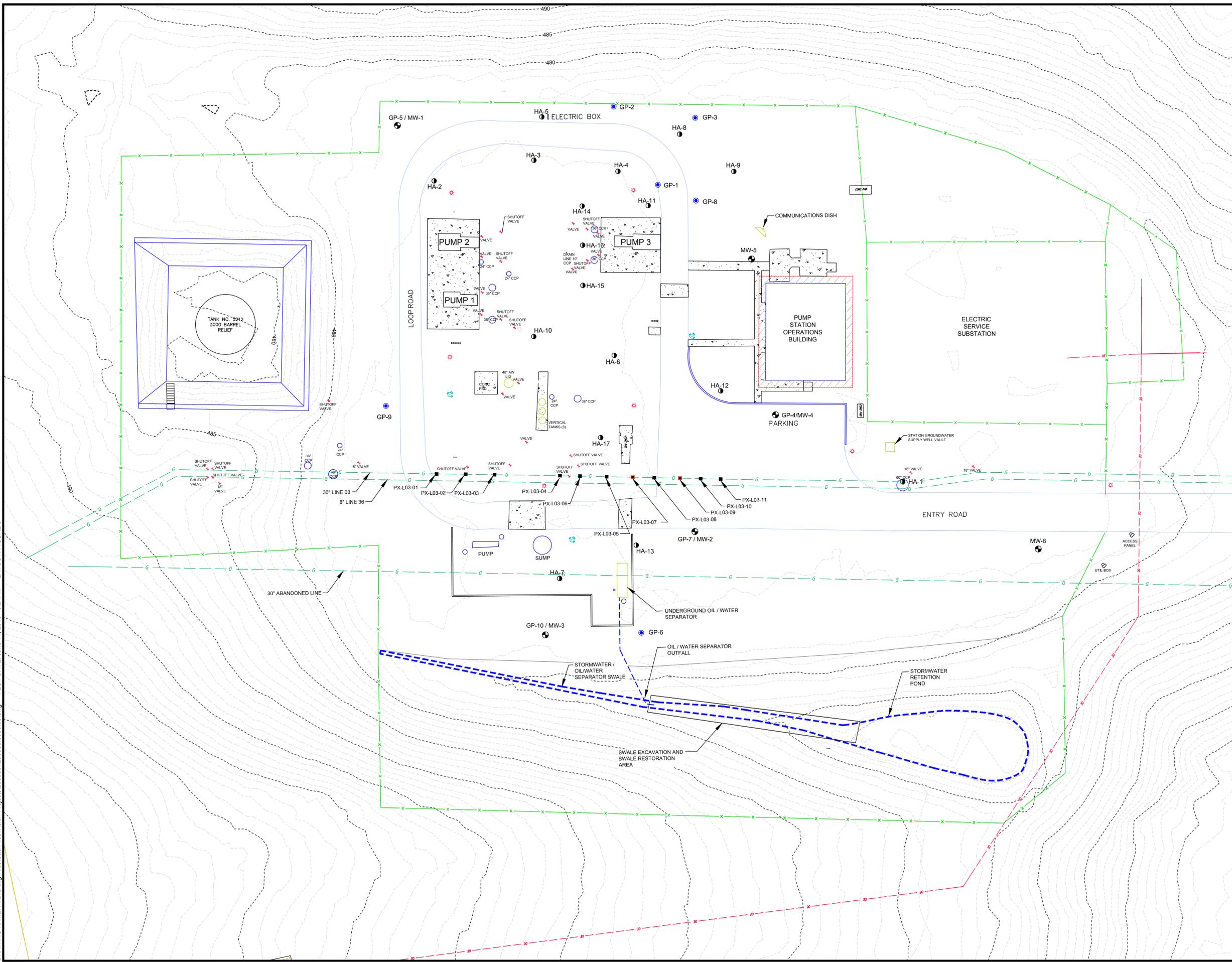
- LEGEND**
- GP-8 GEOPROBE BORING
  - MW-5 MONITORING WELL
  - HA-9 HAND AUGER BORING
  - PX-OS-10 PX-OS SAMPLE LOCATION (INITIAL EXCAVATION)
  - PX-OS-18 PX-OS SAMPLE LOCATION (ADDITIONAL EXCAVATION)
  - SOIL TPH-DRO/TPH-GRO EXCEEDANCE
  - ★ LIGHT POST
  - ⊕ HYDRANT
  - FENCE
  - OVERHEAD ELECTRIC LINE
  - UNDERGROUND GAS LINE

- NOTES:**
1. LOCATION OF YARD DRAIN EXCAVATION, STORMWATER SWALE, STORMWATER RETENTION POND, HAND AUGER SOIL BORINGS, AND POST EXCAVATION SOIL SAMPLES ARE APPROXIMATE.
  2. VALVE AND SHUTOFF VALVE LOCATIONS ARE SURVEYED GENERAL POINTS OF REFERENCE FOR PUMP STATION CONTROL POINTS AND PROCESS CONTROL FEATURES.
  3. POST EXCAVATION SOIL SAMPLES WERE EVALUATED AGAINST THE MARYLAND DEPARTMENT OF ENVIRONMENT (MDE) SOIL RESIDENTIAL CLEAN-UP STANDARD (RCS) FOR VOLATILE ORGANIC COMPOUNDS (VOCs), AND NON-RESIDENTIAL CLEAN-UP STANDARD FOR TOTAL PETROLEUM HYDROCARBON DIESEL RANGE ORGANICS (TPH-DRO) AND TOTAL PETROLEUM HYDROCARBON GASOLINE RANGE ORGANICS (TPH-GRO).



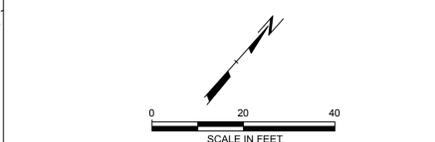
PROJECT:		COLONIAL PIPELINE COMPANY BEL AIR PUMP STATION FALLSTON, HARFORD COUNTY, MARYLAND	
TITLE:		STORMWATER SWALE POST EXCAVATION SAMPLE LOCATIONS	
DRAWN BY:	D. SIEWERT/O. DE LEON	PROJ. NO.:	299980.0000.0000
CHECKED BY:	B. HECKER	<b>FIGURE 8</b>	
APPROVED BY:	D. CARLSON		
DATE:	JUNE 2018		
		1601 Market Street Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122	
FILE NO.:	299980.0000.03.dwg		

2034 -- USER: dca -- ATTACHED XREFS: -- ATTACHED IMAGES: -- DRAWING NAME: X:\Drafting Files\Cad Files\Projects\299980\0000\03.dwg --- PLOT DATE: June 11, 2018 - 6:24PM --- LAYOUT: FIGURE 9



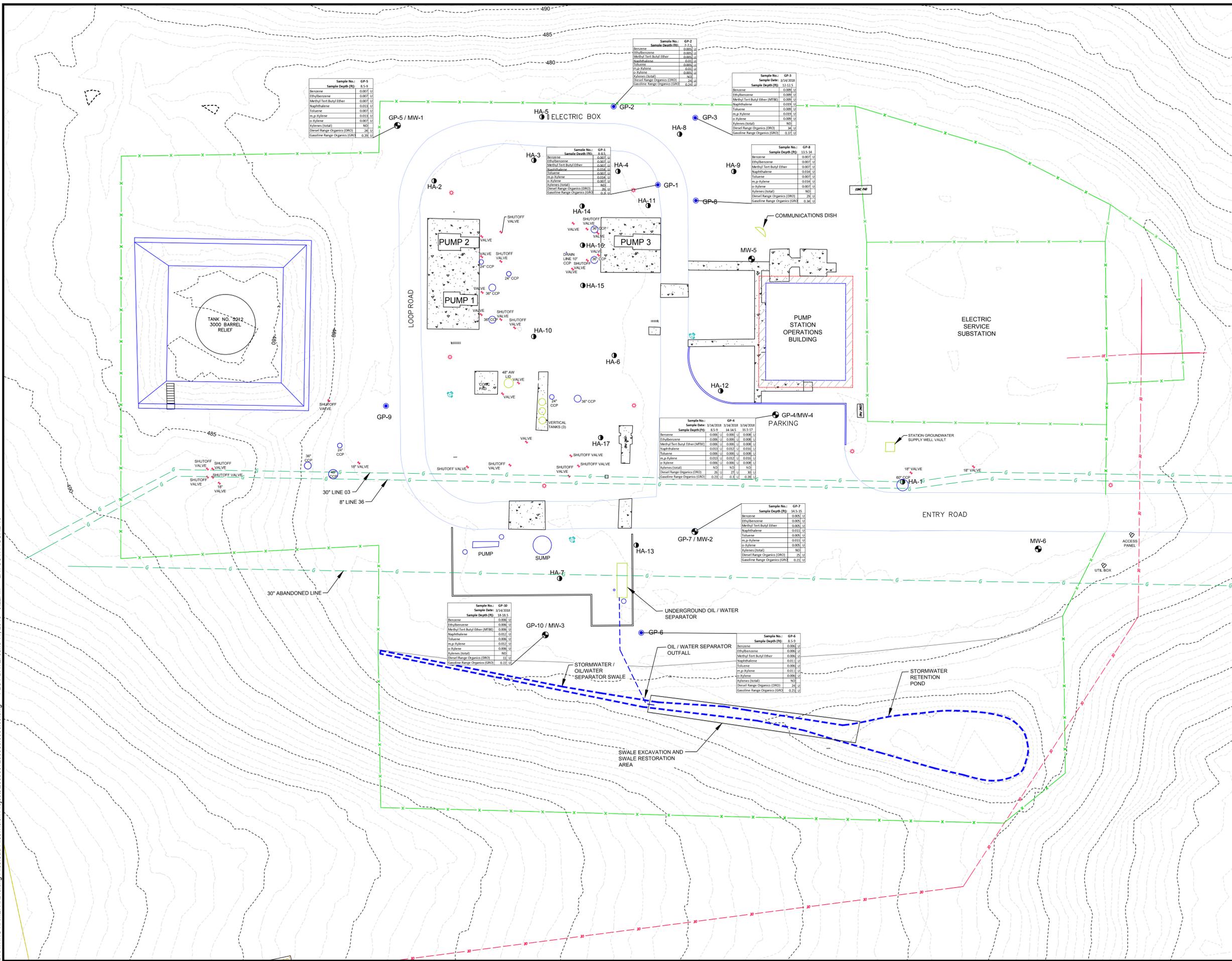
- LEGEND**
- GP-8 GEOPROBE BORING
  - MW-5 MONITORING WELL
  - HA-9 HAND AUGER BORING
  - PX-L03-01 PX-LINE 03 POST EXCAVATION SAMPLE LOCATION
  - SOIL TPH-DRO/TPH-GRO EXCEEDANCE
  - \* LIGHT POST
  - ⊕ HYDRANT
  - x — FENCE
  - - - - - OVERHEAD ELECTRIC LINE
  - - - - - UNDERGROUND GAS LINE

- NOTES:**
1. LOCATION OF YARD DRAIN EXCAVATION, STORMWATER SWALE, STORMWATER RETENTION POND, HAND AUGER SOIL BORINGS, AND POST EXCAVATION SOIL SAMPLES ARE APPROXIMATE.
  2. VALVE AND SHUTOFF VALVE LOCATIONS ARE SURVEYED GENERAL POINTS OF REFERENCE FOR PUMP STATION CONTROL POINTS AND PROCESS CONTROL FEATURES.
  3. POST EXCAVATION SOIL SAMPLES WERE EVALUATED AGAINST THE MARYLAND DEPARTMENT OF ENVIRONMENT (MDE) SOIL RESIDENTIAL CLEAN-UP STANDARD (RCS) FOR VOLATILE ORGANIC COMPOUNDS (VOCs), AND NON-RESIDENTIAL CLEAN-UP STANDARD FOR TOTAL PETROLEUM HYDROCARBON DIESEL RANGE ORGANICS (TPH-DRO) AND TOTAL PETROLEUM HYDROCARBON GASOLINE RANGE ORGANICS (TPH-GRO).
  4. ADDITIONAL SOIL SAMPLES WERE COLLECTED FROM POINTS OF EXCEEDANCE TO VERTICALLY DELINEATE SOIL QUALITY. THE DEEPER SOIL SAMPLES COLLECTED WERE BELOW THE APPLICABLE MDE SOIL STANDARDS.



PROJECT: COLONIAL PIPELINE COMPANY BEL AIR PUMP STATION FALLSTON, HARFORD COUNTY, MARYLAND	
TITLE: LINE 03 POST-EXCAVATION SAMPLE LOCATIONS	
DRAWN BY: D. SIEWERT/O. DE LEON	PROJ. NO.: 299980.0000.0000
CHECKED BY: B. HECKER	<b>FIGURE 9</b>
APPROVED BY: D. CARLSON	
DATE: JUNE 2018	
1601 Market Street Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122	
FILE NO.: 299980.0000.03.dwg	

2034 -- USER: dca -- ATTACHED XREFS: -- ATTACHED IMAGES: -- DRAWING NAME: X:\Drafting Files\Cad Files\Vision Projects\299980.0000.03.dwg --- PLOT DATE: June 11, 2018 - 6:22PM --- LAYOUT: FIGURE 10



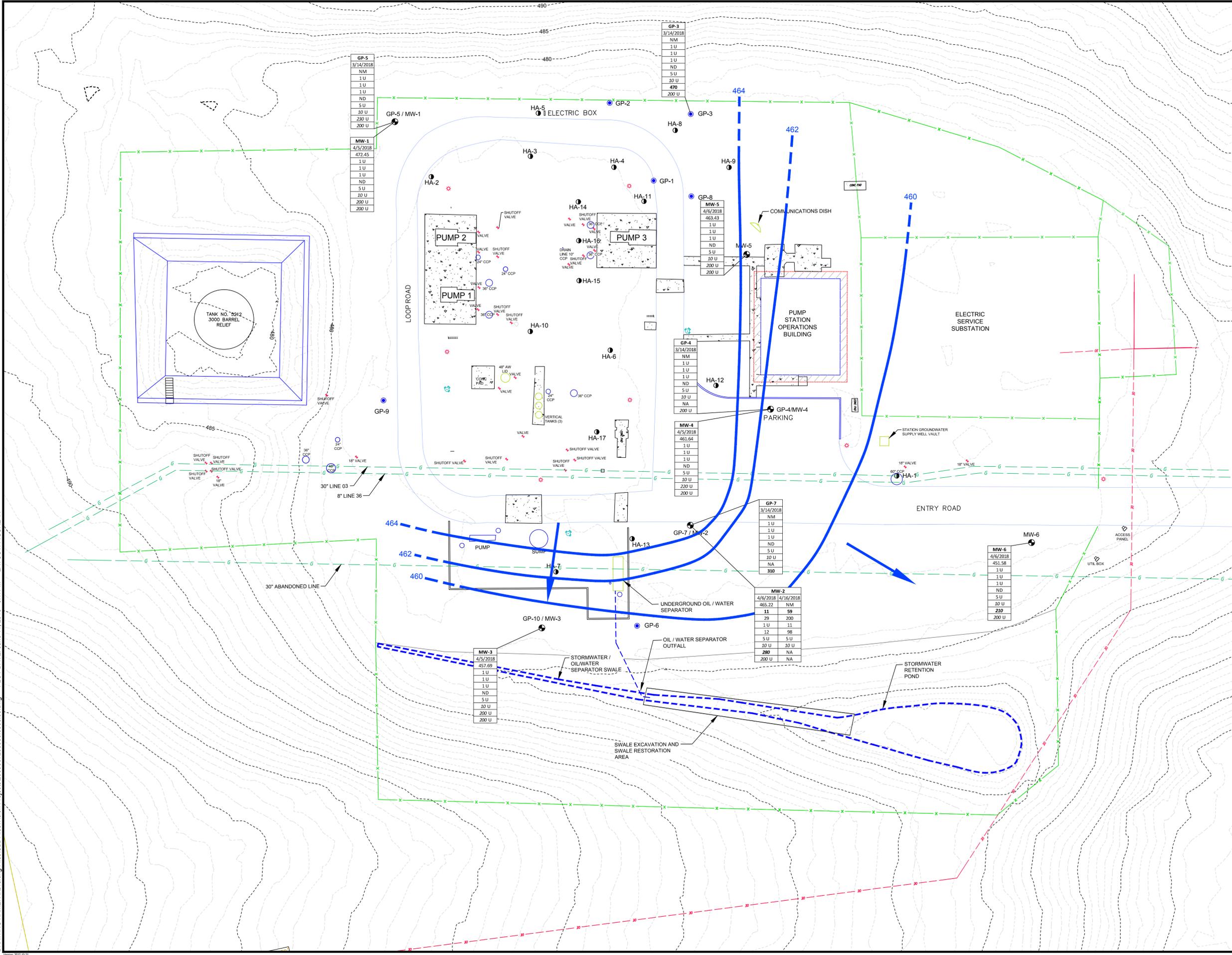
**LEGEND**

- GP-8 GEOPROBE BORING
- MW-5 MONITORING WELL
- HA-9 HAND AUGER BORING
- ★ LIGHT POST
- ⊕ HYDRANT
- FENCE
- - - OVERHEAD ELECTRIC LINE
- - - UNDERGROUND GAS LINE

- NOTES:**
- LOCATION OF YARD DRAIN EXCAVATION, STORMWATER SWALE, STORMWATER RETENTION POND, HAND AUGER SOIL BORINGS, AND POST EXCAVATION SOIL SAMPLES ARE APPROXIMATE.
  - VALVE AND SHUTOFF VALVE LOCATIONS ARE SURVEYED GENERAL POINTS OF REFERENCE FOR PUMP STATION CONTROL POINTS AND PROCESS CONTROL FEATURES.

<b>PROJECT:</b>	
COLONIAL PIPELINE COMPANY BEL AIR PUMP STATION FALLSTON, HARFORD COUNTY, MARYLAND	
<b>TITLE:</b>	
<b>SOIL BORING INVESTIGATION</b>	
<b>DRAWN BY:</b> D. SIEWERT/O. DE LEON	<b>PROJ. NO.:</b> 299980.0000.0000
<b>CHECKED BY:</b> B. HECKER	<b>FIGURE 10</b>
<b>APPROVED BY:</b> D. CARLSON	
<b>DATE:</b> JUNE 2018	
1601 Market Street Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122	
<b>FILE NO.:</b>	299980.0000.03.dwg

2034 - USER: dca08 - ATTACHED XREFS: - ATTACHED IMAGES: - DRAWING NAME: X:\Drafting Files\Cad Files\Projects\299980\0000\03.dwg --- PLOT DATE: June 11, 2018 - 6:17PM --- LAYOUT: FIGURE 11



**LEGEND**

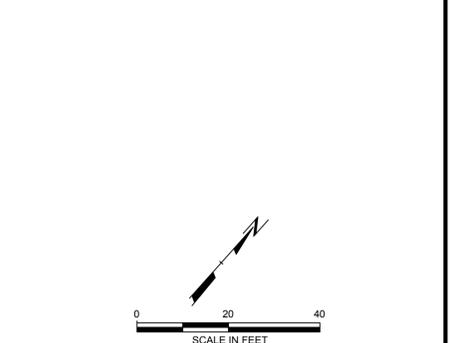
- GP-8 GEOPROBE BORING
- MW-5 MONITORING WELL
- HA-9 HAND AUGER BORING
- LIGHT POST
- HYDRANT
- FENCE
- - - OVERHEAD ELECTRIC LINE
- - - UNDERGROUND GAS LINE
- - - GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- ← INFERRED GROUNDWATER FLOW DIRECTION

**MW-1**

4/5/2018	DATE SAMPLED
472.45	GROUNDWATER ELEVATION (FT. AMSL)
1 U	BENZENE CONCENTRATION (ug/L)
1 U	TOLUENE CONCENTRATION (ug/L)
1 U	ETHYLBENZENE CONCENTRATION (ug/L)
ND	TOTAL XYLENES CONCENTRATION (ug/L)
ND	MTBE CONCENTRATION (ug/L)
10 U	NAPHTHALENE CONCENTRATION (ug/L)
200 U	TPH-DRO CONCENTRATION (ug/L)
200 U	TPH-GRO CONCENTRATION (ug/L)

NA = NOT ANALYZED; FOR GP BORINGS, THERE WAS INSUFFICIENT VOLUME FOR DRO SAMPLE COLLECTION. FOR MW-2, ONLY VOC COMPOUNDS WERE RE-SAMPLED TO CONFIRM BENZENE DETECTION  
 NM = NOT MEASURED  
 ND = NOT DETECTED  
 (ug/L) = MICROGRAMS PER LITER

- NOTES:**
1. LOCATION OF STORMWATER SWALE AND STORMWATER RETENTION POND ARE APPROXIMATE.
  2. VALVE AND SHUTOFF VALVE LOCATIONS ARE SURVEYED GENERAL POINTS OF REFERENCE FOR PUMP STATION CONTROL POINTS AND PROCESS CONTROL FEATURES.
  3. GEOPROBE GROUNDWATER SAMPLES WERE COLLECTED MARCH 14, 2018.
  4. MONITORING WELL GROUNDWATER ELEVATIONS WERE MEASURED APRIL 4, 2018 AND SAMPLED ON APRIL 5-6, 2018. BOLD VALUES INDICATE DETECTION ABOVE MDE TYPE I AQUIFER STANDARD.
  5. VALUES IN ITALICS INDICATE PRACTICAL QUANTITATION LIMIT (PQL) ABOVE MDE TYPE I AQUIFER STANDARD.
  6. U QUALIFIER INDICATES THAT THE COMPOUND WAS NOT DETECTED ABOVE THE (PQL).
  7. ND INDICATES THAT THE SUM OF THE COMPOUND CONCENTRATIONS WERE NOT DETECTED (ND) ABOVE THE PQL.
  8. A CONFIRMATION GROUNDWATER SAMPLE WAS COLLECTED FROM MONITORING WELL MW-2 ON APRIL 16, 2018.



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

TITLE: GROUNDWATER ANALYTICAL AND POTENTIOMETRIC MAP  
 APRIL 4, 2018

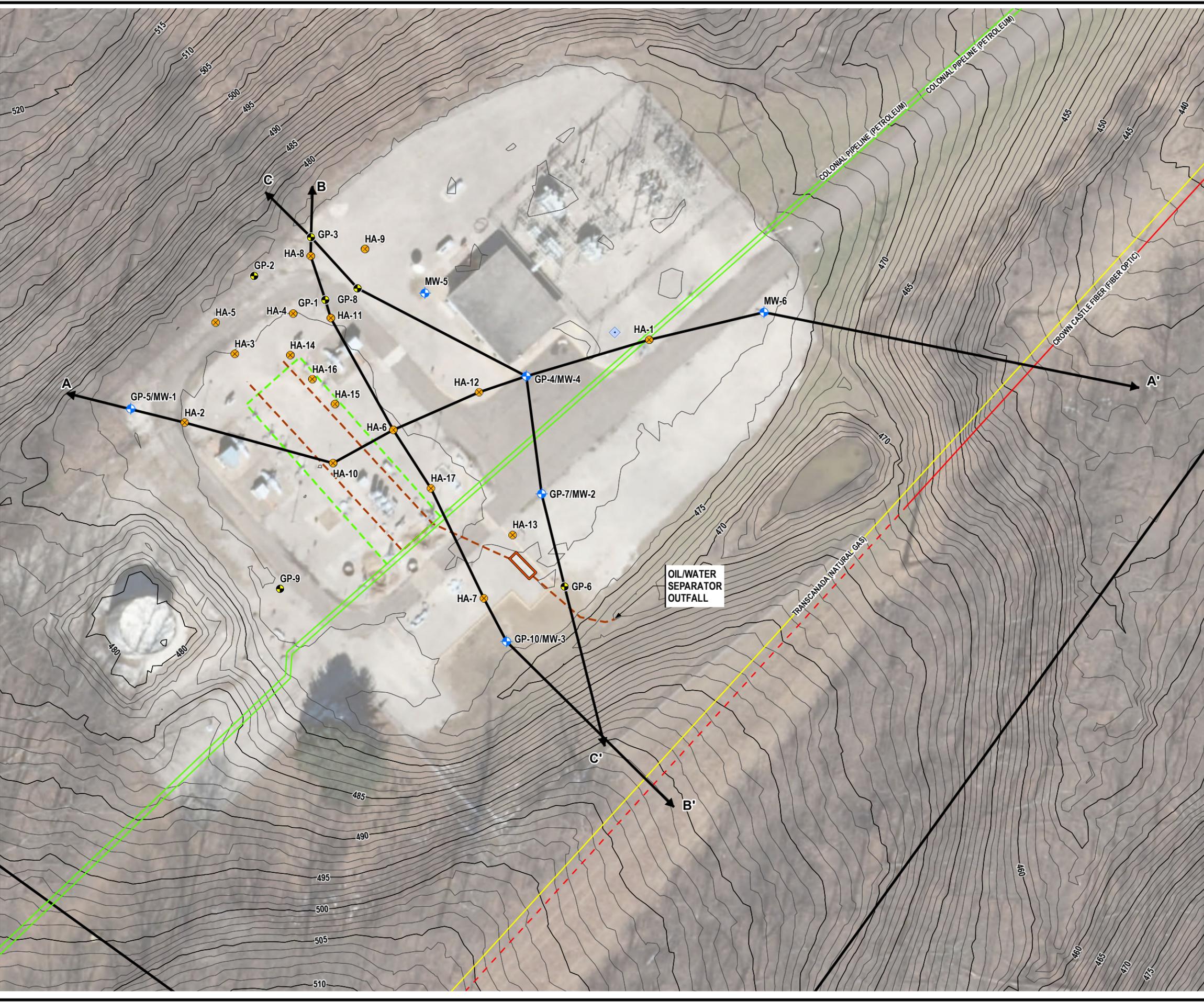
DRAWN BY: D. SIEWERT/O. DE LEON PROJ. NO.: 299980.0000.0000  
 CHECKED BY: B. HECKER  
 APPROVED BY: D. CARLSON  
 DATE: JUNE 2018

**FIGURE 11**

TRC 1601 Market Street Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122

FILE NO.: 299980.0000.03.dwg

TRC - GIS  
 Coordinate System: NAD 1983 StatePlane Maryland FIPS 1900 Feet (Foot US)  
 Map Rotation: 0  
 Plot Date: 6/11/2018, 09:04:42 AM by RSUEMNICHT -- LAYOUT: ANSIB(11"x17")  
 Path: S:\1-PROJECTS\COLONIAL PIPELINE\FallstonMD\2018\_299980\_2942\_CharlesOther\X-Sec\299980-0000-X\_Sec.mxd



**LEGEND**

- GEOPROBE BORING
- SOIL SAMPLE
- MONITORING WELL
- FACILITY POTABLE WELL
- CROSS SECTION LOCATOR
- NATURAL GAS PIPELINE
- FIBER OPTIC CABLES
- PETROLEUM PIPELINE
- PRODUCT PIPING LOOP (APPROXIMATE LOCATION)
- YARD DRAIN (APPROXIMATE LOCATION)
- OIL/WATER SEPARATOR
- 1' MINOR CONTOUR
- 5' MAJOR CONTOUR
- PROPERTY BOUNDARY

- NOTES**
1. BASE MAP IMAGERY FROM MARYLAND IMAP WEB SERVICE LAYER, 2016/2017.
  2. UTILITY LINE LOCATIONS ARE APPROXIMATE BASED ON SURFACE MARKINGS AND SITE OBSERVATIONS.
  3. LOCATIONS OF SIMPLIFIED PRODUCT LOOP, YARD DRAIN, AND OIL/WATER SEPARATOR OUTFALL PIPING ARE APPROXIMATE.

N

0 50 100 Feet

1" = 50'  
1:600

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

**GEOLOGIC CONCEPTUAL SITE MODEL  
 CROSS SECTION LOCATION MAP**

DRAWN BY:	M. LOVELACE	PROJ. NO.:	299980.0000
CHECKED BY:	B. HECKER	<b>FIGURE 12</b>	
APPROVED BY:	D. CARLSON		
DATE:	JUNE 2018		

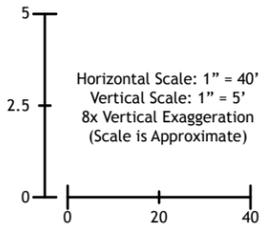
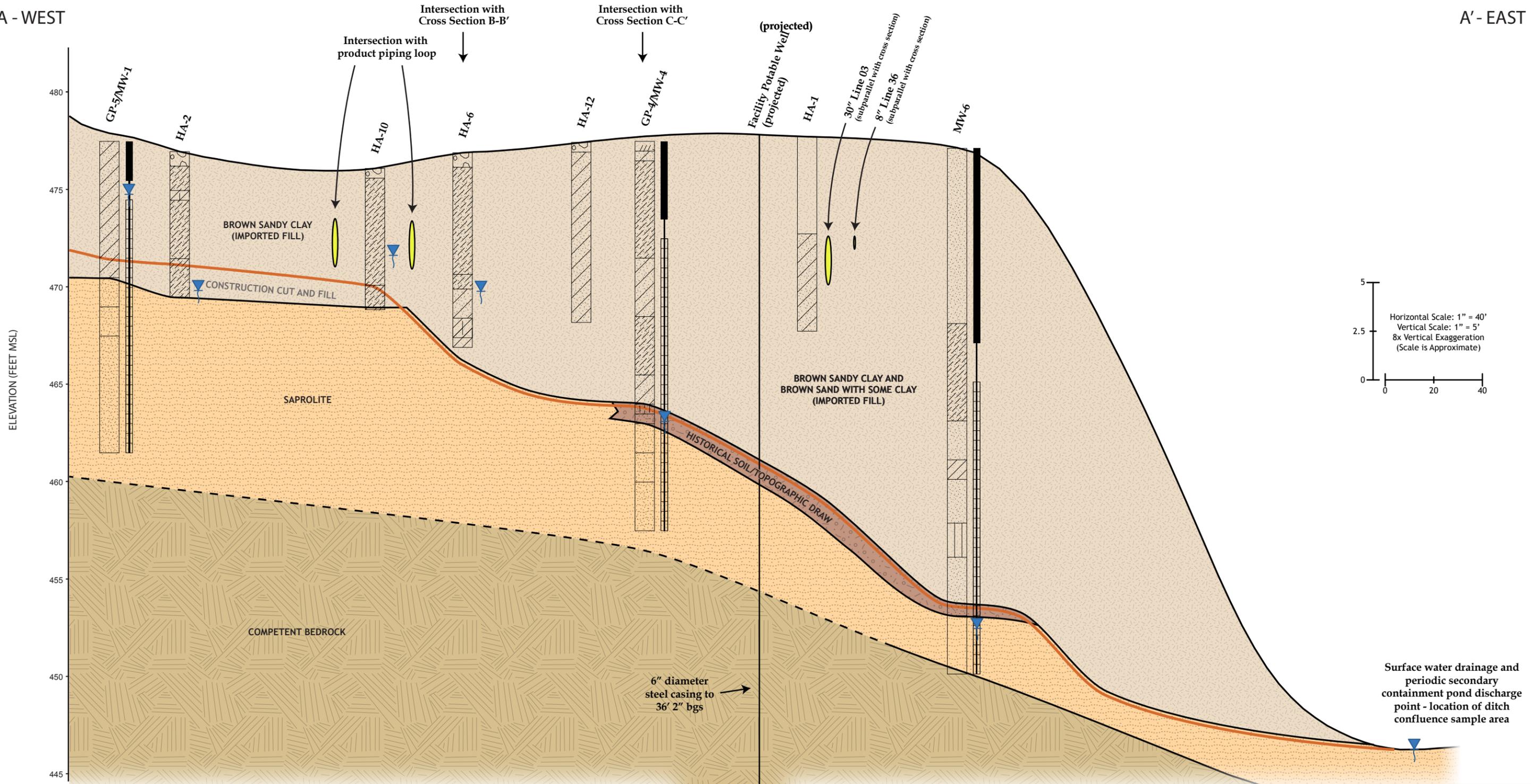
**TRC**

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299980-0000-X\_Sec.mxd

A - WEST

A' - EAST



**LEGEND**

**SOIL AND BEDROCK UNITS**

	BROWN SANDY CLAY (IMPORTED FILL)
	SAPROLITE
	COMPETENT BEDROCK OF THE WISSAHICKON SCHIST
	HISTORICAL SOIL/TOPOGRAPHIC DRAW (WOOD FRAGMENTS, CRYSTALLINE QUARTZ FRAGMENTS 3 FT ABOVE REFUSAL)

- STRATIGRAPHIC BOUNDARY, DASHED WHERE INFERRED
- HISTORICAL GROUND SURFACE
- GROUNDWATER ELEVATION (FT, MSL)

- NOTES**
- UPPER CONTACT OF COMPETENT BEDROCK SHOWN IS DEFINED AS BORING REFUSAL DEPTH (MW-6) AND DASHED TO INDICATE APPROXIMATE DEPTH WHERE SIMILAR REFUSAL CONDITION MAY BE EXPECTED.
  - LOCATION OF FACILITY POTABLE WELL IS APPROXIMATELY 10 FT NORTHWEST OF CROSS SECTION ROUTE.
  - TRANSCANADA AND CROWN CASTLE UTILITY LINES ARE NOT SHOWN.

open rock borehole continues to 215' bgs (full extent not shown)

**BOREHOLE LOG SYMBOLOGY**

	CONCRETE/ASPHALT		SAND WITH SILT
	GRAVEL		SILT
	SAND		SILTY CLAY
	CLAYEY SAND		LEAN CLAY
	SANDY LEAN CLAY		WELL SEAL
			WELL CASING
			WELL SCREEN
			OPEN BOREHOLE

PROJECT: COLONIAL PIPELINE CORPORATION  
BEL AIR STATION  
FALLSTON, MARYLAND

TITLE: **GEOLOGIC CONCEPTUAL SITE MODEL  
CROSS SECTION A-A'**

DRAWN BY: L. AUNER PROJ NO: 299980.0000  
CHECKED BY: D. KUDLA  
APPROVED BY: D. CARLSON  
DATE: JUNE 2018

**FIGURE 13**

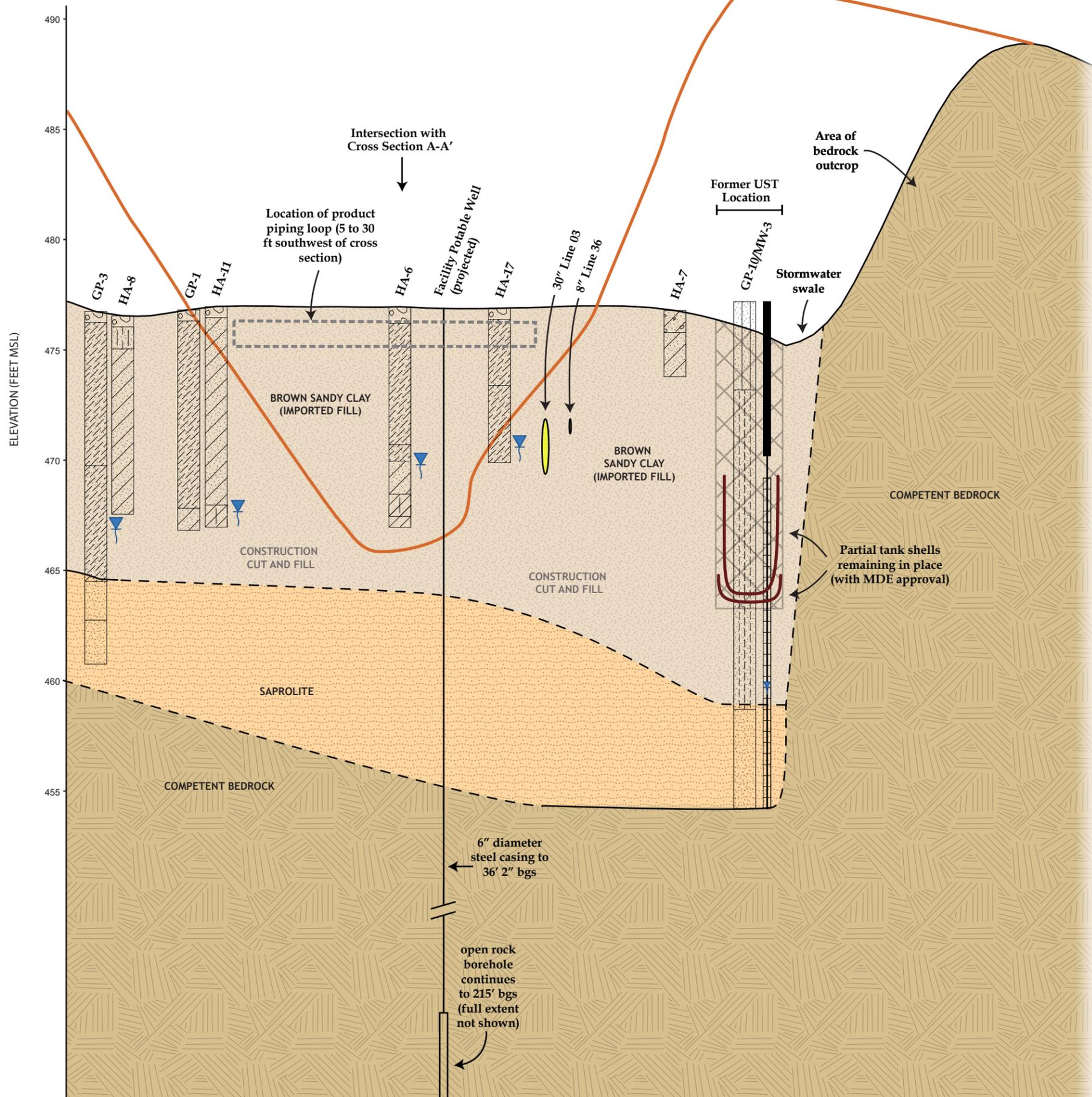
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FILE NO: 299980-0000\_a101.ai

File Path: P:\AllColonial\_Pipeline\FallstonMD\299980\299980-0000\_a101.ai

B - NORTH

B' - SOUTH



**LEGEND**

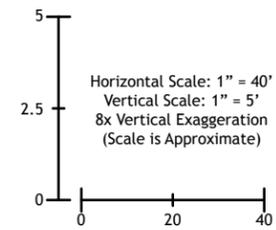
SOIL AND BEDROCK UNITS		STRATIGRAPHIC BOUNDARY, DASHED WHERE INFERRED	
	BROWN SANDY CLAY (IMPORTED FILL)		HISTORICAL GROUND SURFACE
	SAPROLITE		GROUNDWATER ELEVATION
	COMPETENT BEDROCK OF THE WISSAHICKON SCHIST		FORMER UST LOCATION

**BOREHOLE LOG SYMBOLY**

	GRAVEL		SANDY SILT		WELL SEAL	
	SAND		SAND WITH SILT			WELL CASING
	CLAYEY SAND		SILTY CLAY			WELL SCREEN
	SANDY LEAN CLAY		LEAN CLAY			OPEN BOREHOLE
	LEAN CLAY WITH SAND AND GRAVEL					

**NOTES**

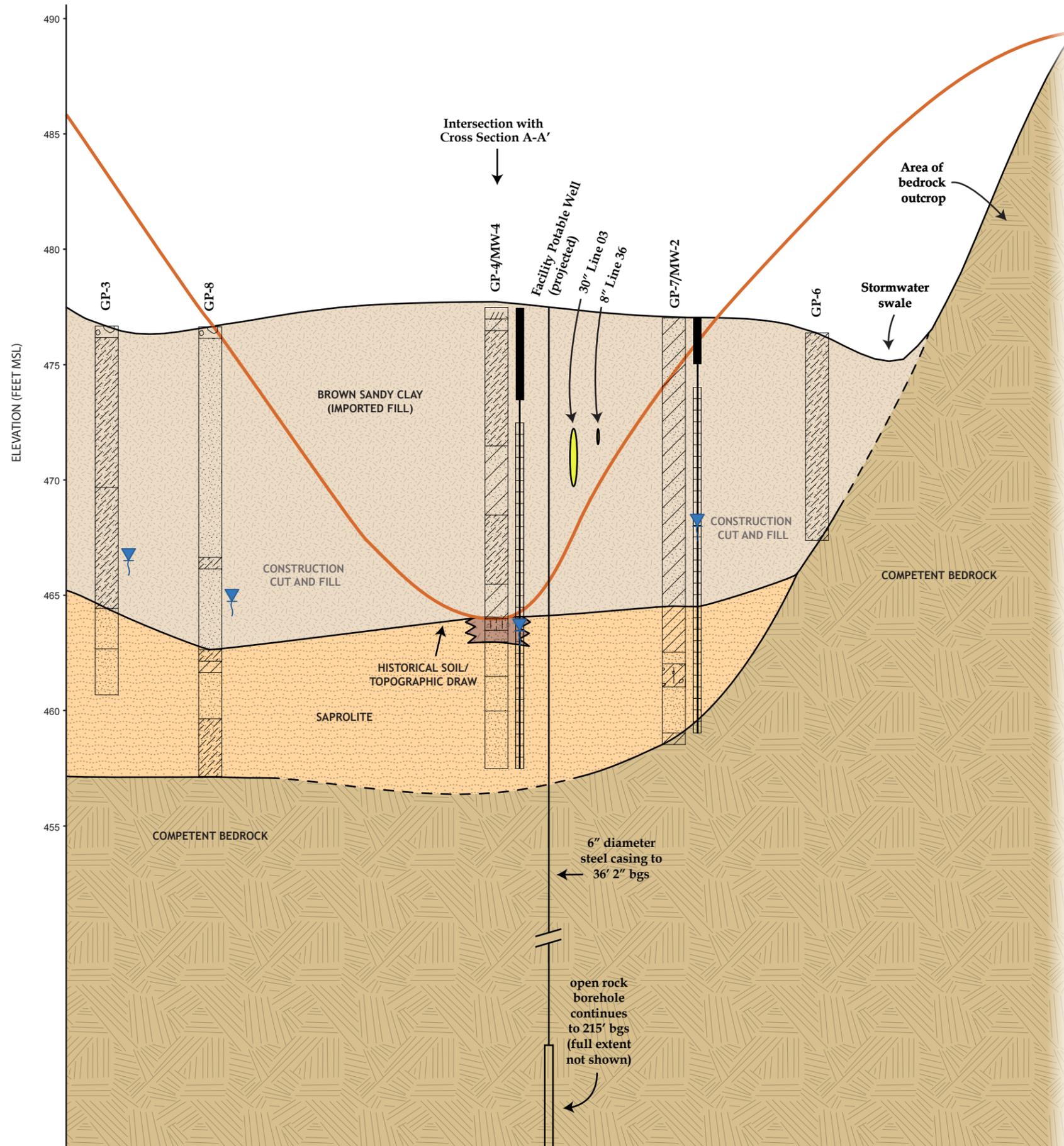
- UPPER CONTACT OF COMPETENT BEDROCK SHOWN IS DEFINED AS BORING REFUSAL DEPTH (GP-3 AND GP-10/MW-3) AND DASHED TO INDICATE APPROXIMATE DEPTH WHERE SIMILAR REFUSAL CONDITION MAY BE EXPECTED.
- LOCATION OF FACILITY POTABLE WELL IS APPROXIMATELY 124 FT NORTHEAST OF CROSS SECTION ROUTE.



PROJECT:		<b>COLONIAL PIPELINE CORPORATION BEL AIR STATION FALLSTON, MARYLAND</b>	
TITLE:		<b>GEOLOGIC CONCEPTUAL SITE MODEL CROSS SECTION B-B'</b>	
DRAWN BY:	L. AUNER	PROJ NO.:	299980.0000
CHECKED BY:	D. KUDLA	<b>FIGURE 14</b>	
APPROVED BY:	D. CARLSON		
DATE:	JUNE 2018	1601 Market Street, Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122 www.trcsolutions.com	
FILE NO.:	299980-0000_ai02.ai	TRC	

C - NORTH

C' - SOUTH



**LEGEND**

**SOIL AND BEDROCK UNITS**

- BROWN SANDY CLAY (IMPORTED FILL)
- SAPROLITE
- COMPETENT BEDROCK OF THE WISSAHICKON SCHIST
- HISTORICAL SOIL/TOPOGRAPHIC DRAW (WOOD FRAGMENTS, CRYSTALLINE QUARTZ FRAGMENTS 3 FT ABOVE REFUSAL)

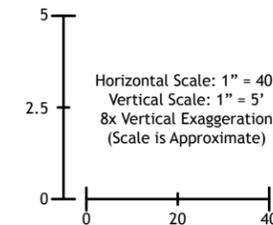
- STRATIGRAPHIC BOUNDARY, DASHED WHERE INFERRED
- HISTORICAL GROUND SURFACE
- GROUNDWATER ELEVATION

**BOREHOLE LOG SYMBOLOGY**

- |  |                  |  |                     |  |
|--|------------------|--|---------------------|--|
|  | CONCRETE/ASPHALT |  | GRAVELLY SILTY CLAY | WELL SEAL<br>WELL CASING<br>WELL SCREEN<br>OPEN BOREHOLE |
|  | GRAVEL           |  | SILTY CLAY          |  |
|  | SAND             |  | LEAN CLAY           |  |
|  | CLAYEY SAND      |  | SAND WITH SILT      |  |
|  | SANDY LEAN CLAY  |  |                     |  |
|  |                  |  |                     |  |

**NOTES**

1. UPPER CONTACT OF COMPETENT BEDROCK SHOWN IS DEFINED AS BORING REFUSAL DEPTH (GP-8, GP-7/MW-2, AND GP-6) AND DASHED TO INDICATE APPROXIMATE DEPTH WHERE SIMILAR REFUSAL CONDITION MAY BE EXPECTED.
2. LOCATION OF FACILITY POTABLE WELL IS APPROXIMATELY 65 FT NORTHEAST OF CROSS SECTION ROUTE.



PROJECT:		<b>COLONIAL PIPELINE CORPORATION BEL AIR STATION FALLSTON, MARYLAND</b>	
TITLE:		<b>GEOLOGIC CONCEPTUAL SITE MODEL CROSS SECTION C-C'</b>	
DRAWN BY:	L. AUNER	PROJ NO.:	299980.0000
CHECKED BY:	D. KUDLA	<b>FIGURE 15</b>	
APPROVED BY:	D. CARLSON		
DATE:	JUNE 2018	1601 Market Street, Suite 2555 Philadelphia, PA 19103 Phone: 215.563.2122 www.trcsolutions.com	
FILE NO.:	299980-0000_ai03.ai		

## **TABLES**

Table 1	Soil Analytical Data Summary – Yard Drain Post Excavation
Table 2	Soil Analytical Data Summary – Access Well Post Excavation
Table 3	Soil Analytical Data Summary – Stormwater Swale Post Excavation
Table 4	Soil Analytical Data Summary – Line 03 Post Excavation
Table 5	Soil Analytical Data Summary – Soil Boring Investigation
Table 6	Groundwater Analytical Data Summary – Temporary & Monitoring Wells
Table 7	Groundwater Analytical Data Summary – Station and Residential Wells
Table 8	Surface Water Analytical Data Summary







**TABLE 2**  
**Soil Analytical Data Summary - Access Well Post Excavation**

Colonial Pipeline Company - Bel Air Pump Station  
2942 Charles Street, Fallston, Harford County, Maryland

TRC No.:	AW-9	AW-8	AW-7	AW-6	AW-5	AW-4	AW-1	AW-2	AW-3	AW-10	AW-11	AW-12	AW-12	AW-13	AW-14																
Sample No.:	PX-AW-01	PX-AW-02	PX-AW-03	PX-AW-04	PX-AW-05	PX-AW-06	PX-AW-07	PX-AW-08	PX-AW-09	PX-AW-10	PX-AW-11	PX-AW-12	PX-AW-12	PX-AW-13	PX-AW-14																
Date Sampled:	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018																
Sample Depth (ft):	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	3-3.5	4-4.5	3-3.5																
Lab Sample ID:	18031904-13	18031904-14	18031904-15	18031904-16	18031904-17	18031904-18	18031904-19	18031904-20	18031904-21	18031904-22	18031904-23	18031904-24	18032601-07	18031904-25	18031904-26																
Lab:	Caliber																														
Parameter (mg/kg)	CAS No.	MD RCS																													
Acetone	67-64-1	7000	0.051	U	0.048	U	0.05	U	0.057	U	0.18		0.058	U	0.16		0.51	U	7.2	U	0.056	U	0.047	U	0.077	U	NA	0.063	U	6.7	U
Benzene	71-43-2	12	0.005	U	0.005	U	0.23		0.006	U	0.071		0.13		0.04		0.051	U	0.72	U	0.006	U	0.018		0.008	U	NA	0.006	U	0.67	U
Bromodichloromethane	75-27-4	10	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
Bromoform	75-25-2	81	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
Bromomethane	74-83-9	11	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
2-Butanone (MEK)	78-93-3	4700	0.051	U	0.048	U	0.05	U	0.057	U	0.18		0.065		0.056		0.51	U	7.2	U	0.056	U	0.047	U	0.077	U	NA	0.063	U	6.7	U
Carbon Disulfide	75-15-0	780	0.01	U	0.01	U	0.01	U	0.011	U	0.012	U	0.012	U	0.01	U	0.1	U	1.4	U	0.011	U	0.009	U	0.015	U	NA	0.013	U	1.3	U
Carbon tetrachloride	56-23-5	4.9	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
Chlorobenzene	108-90-7	160	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
Chloroethane	75-00-3	220	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
Chloroform	67-66-3	78	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
Chloromethane	74-87-3	--	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
cis-1,2-Dichloroethene	156-59-2	78	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
cis-1,3-Dichloropropene	10061-01-5	6.4	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
Cyclohexane	110-82-7	--	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.009		0.009		0.051	U	0.72	U	0.006	U	0.014		0.008	U	NA	0.006	U	1.3	U
1,2-Dibromo-3-chloropropane	96-12-8	0.2	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
Dibromochloromethane	124-48-1	7.6	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
1,2-Dibromoethane	106-93-4	0.32	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
1,2-Dichlorobenzene	95-50-1	700	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
1,3-Dichlorobenzene	541-73-1	23	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
1,4-Dichlorobenzene	106-46-7	27	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
Dichlorodifluoromethane	75-71-8	--	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
1,1-Dichloroethane	75-34-3	1600	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
1,2-Dichloroethane	107-06-2	7	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
1,1-Dichloroethene	75-35-4	390	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
1,2-Dichloropropane	78-87-5	9.4	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
1,3-Dichloropropene (total)	542-75-6	--	ND		ND		ND		ND		ND		ND		ND		NA	ND		ND											
Ethylbenzene	100-41-4	780	0.005	U	0.006		0.024		0.006	U	0.006	U	0.006	U	0.023		0.051	U	2.9		0.006	U	0.08		0.008	U	NA	0.006	U	6.4	
2-Hexanone	591-78-6	--	0.01	U	0.01	U	0.01	U	0.011	U	0.012	U	0.012	U	0.01	U	0.1	U	1.4	U	0.011	U	0.009	U	0.015	U	NA	0.013	U	1.3	U
Isopropyl Ether	108-20-3	--	0.005	U	0.005	U	0.15		0.006	U	0.046		0.18		0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.01		NA	0.006	U	0.67	U
Isopropylbenzene	98-82-8	780	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.14		2.7		0.006	U	0.036		0.015		NA	0.006	U	5.1	
Methyl Acetate	79-20-9	--	0.026	U	0.024	U	0.025	U	0.029	U	0.029	U	0.029	U	0.029	U	0.25	U	3.6	U	0.028	U	0.023	U	0.039	U	NA	0.032	U	3.3	U
Methyl Tert Butyl Ether (MTBE)	1634-04-4	160	0.005	U	0.005	U	0.029		0.006	U	0.023		0.073		0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
4-methyl-2-pentanone (MIBK)	108-10-1	--	0.01	U	0.01	U	0.01	U	0.011	U	0.012	U	0.012	U	0.01	U	0.1	U	1.4	U	0.011	U	0.009	U	0.015	U	NA	0.013	U	24	
Methylcyclohexane	108-87-2	--	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.007		0.011		0.21		2.4		0.006	U	0.09		0.023		NA	0.006	U	13	
Methylene chloride	75-09-2	85	0.026	U	0.024	U	0.025	U	0.029	U	0.029	U	0.029	U	0.026	U	0.25	U	3.6	U	0.028	U	0.023	U	0.039	U	NA	0.032	U	3.3	U
Naphthalene	91-20-3	160	0.01	U	0.011		0.01	U	0.011	U	0.012	U	0.012	U	0.018		0.1	U	2.6		0.011	U	0.058		0.022		NA	0.013	U	3.7	
Styrene	100-42-5	1600	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
tert-Amyl Alcohol (TAA)	75-85-4	--	0.026	U	0.024	U	0.025	U	0.029	U	0.076		0.029	U	0.026	U	0.25	U	3.6	U	0.028	U	0.023	U	0.039	U	NA	0.032	U	3.3	U
tert-Amyl Ethyl Ether (TAE)	919-94-8	--	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
tert-Amyl Methyl Ether	994-05-8	--	0.005	U	0.005	U	0.005	U	0.006	U	0.006	U	0.006	U	0.005	U	0.051	U	0.72	U	0.006	U	0.005	U	0.008	U	NA	0.006	U	0.67	U
tert-Butyl Alcohol	75-65-0	--	0.026	U	0.024	U	0.025	U	0.029	U	0.029	U	0.029	U	0.029	U	0.25	U	3.6	U	0.028	U	0.023	U	0.039	U	NA	0.032	U	3.3	U
tert-Butyl Ethyl Ether	637-92-3	--	0.0																												

**TABLE 3**  
**Soil Analytical Data Summary - Stormwater Swale Post Excavation**

Colonial Pipeline Company - Bel Air Pump Station  
 2942 Charles Street, Fallston, Harford County, Maryland

Sample No.:	PX-OS-01	PX-OS-02	PX-OS-03	PX-OS-04	PX-OS-05	PX-OS-06	PX-OS-07	PX-OS-08	PX-OS-09	PX-OS-09	PX-OS-10	PX-OS-10		
Date Sampled:	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018	3/19/2018		
Sample Depth (ft):	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1	0.5-1	0-0.5	0-0.5	0-0.5	0-0.5		
Lab Sample ID:	18031904-01	18031904-02	18031904-03	18031904-04	18031904-05	18031904-06	18031904-07	18031904-08	18031904-09	18031904-10	18031904-11	18031904-12		
Lab:	Caliber													
Sample Media:	Soil	Sediment	Sediment	Sediment	Sediment									
Parameter (mg/kg)	CAS No.	MD RCS												
Acetone	67-64-1	7000	58	7	17	14	11	0.59	0.65	8.9	0.063	0.059	0.13	0.12
Benzene	71-43-2	12	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Bromodichloromethane	75-27-4	10	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Bromofrom	75-25-2	81	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Bromomethane	74-83-9	11	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
2-Butanone (MEK)	78-93-3	4700	58	7	11	14	11	0.59	0.65	8.9	0.063	0.059	0.13	0.12
Carbon Disulfide	75-15-0	780	12	1.4	2.2	2.8	2.2	0.12	0.13	1.8	0.013	0.012	0.027	0.024
Carbon tetrachloride	56-23-5	4.9	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Chlorobenzene	108-90-7	160	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Chloroethane	75-00-3	220	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Chloroform	67-66-3	78	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Chloromethane	74-87-3	--	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
cis-1,2-Dichloroethene	156-59-2	78	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
cis-1,3-Dichloropropene	10061-01-5	6.4	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Cyclohexane	110-82-7	--	5.8	0.7	1.1	1.4	1.1	0.059	0.085	0.89	0.006	0.006	0.013	0.012
1,2-Dibromo-3-chloropropane	96-12-8	0.2	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Dibromochloromethane	124-48-1	7.6	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,2-Dibromoethane	106-93-4	0.32	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,2-Dichlorobenzene	95-50-1	700	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,3-Dichlorobenzene	541-73-1	23	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,4-Dichlorobenzene	106-46-7	27	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Dichlorodifluoromethane	75-71-8	--	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,1-Dichloroethane	75-34-3	1600	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,2-Dichloroethane	107-06-2	7	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,1-Dichloroethene	75-35-4	390	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,2-Dichloropropane	78-87-5	9.4	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,3-Dichloropropene (total)	542-75-6	--	ND	ND	ND									
Ethylbenzene	100-41-4	780	9.3	0.7	4.6	16	7.3	0.059	0.065	3.5	0.006	0.006	0.013	0.012
2-Hexanone	591-78-6	--	12	1.4	2.2	2.8	2.2	0.12	0.13	1.8	0.013	0.012	0.027	0.024
Isopropyl Ether	108-20-3	--	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Isopropylbenzene	98-82-8	780	5.8	1	4.3	7.4	5.6	0.064	0.12	4.3	0.006	0.006	0.013	0.012
Methyl Acetate	79-20-9	--	29	3.5	5.6	7.1	5.5	0.29	0.33	4.5	0.032	0.03	0.067	0.06
Methyl Tert Butyl Ether (MTBE)	1634-04-4	160	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
4-methyl-2-pentanone (MIBK)	108-10-1	--	12	1.4	2.2	2.8	2.2	0.12	0.13	1.8	0.013	0.012	0.027	0.024
Methylcyclohexane	108-87-2	--	10	1.1	4.2	20	7.3	0.23	0.71	4	0.006	0.006	0.013	0.012
Methylene chloride	75-09-2	85	29	3.5	5.6	7.1	5.5	0.29	0.33	4.5	0.032	0.03	0.067	0.06
Naphthalene	91-20-3	160	14	2.3	3.5	6.3	3.9	0.12	0.13	3.3	0.013	0.012	0.027	0.024
Styrene	100-42-5	1600	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
tert-Amyl Alcohol (TAA)	75-85-4	--	29	3.5	5.6	7.1	5.5	0.29	0.33	4.5	0.032	0.03	0.067	0.06
tert-Amyl Ethyl Ether (TAAE)	919-94-8	--	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
tert-Amyl Methyl Ether	994-05-8	--	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
tert-Butyl Alcohol	75-65-0	--	29	3.5	5.6	7.1	5.5	0.29	0.33	4.5	0.032	0.03	0.067	0.06
tert-Butyl Ethyl Ether	637-92-3	--	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,1,2,2-Tetrachloroethane	79-34-5	3.2	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Tetrachloroethene	127-18-4	1.2	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Toluene	108-88-3	630	9.1	0.7	3.2	25	5.2	0.059	0.074	2.2	0.006	0.006	0.013	0.012
trans-1,2-Dichloroethene	156-60-5	160	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
trans-1,3-Dichloropropene	10061-02-6	6.4	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Freon 113	76-13-1	--	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,1,1-Trichloroethane	71-55-6	16000	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,1,2-Trichloroethane	79-00-5	11	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Trichloroethene	79-01-6	1.6	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Trichlorofluoromethane	75-69-4	--	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
1,2,4-Trichlorobenzene	120-82-1	78	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
Vinyl Chloride	75-01-4	0.09	5.8	0.7	1.1	1.4	1.1	0.059	0.065	0.89	0.006	0.006	0.013	0.012
m,p-Xylene	179601-23-1	--	38	5.7	23	51	36	0.19	0.34	25	0.013	0.012	0.027	0.024
o-Xylene	95-47-6	--	21	8.6	16	39	20	2.8	3.3	17	0.006	0.006	0.013	0.012
Xylenes (total)	1330-20-7	1600	59	14.3	39	90	56	2.99	3.64	42	ND	ND	ND	ND
Parameter (mg/kg)	CAS No.	MD NRCS												
Diesel Range Organics (DRO)	68476-30-2	620	9600	17000	14000	17000	8700	21000	18000	10000	95	44	61	250
Gasoline Range Organics (GRO)	8006-61-9	620	5500	2800	5700	7400	5900	330	4000	3200	0.25	0.24	0.39	0.34

Values are reported in milligrams per kilogram (mg/kg)  
 RCS = MD's Residential Clean-up Standard  
 NRCS = MD's Non-Residential Clean-up Standard  
 Bold indicates concentrations above the MD RCS or NRCS  
 ND = Not Detected  
 NA = Not Analyzed  
 U = Compound not detected above PQL  
 Values in italics indicate PQL above applicable criterion.  
 B = Compound was found in the blank and sample.  
 D = Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples

**TABLE 3**  
**Soil Analytical Data Summary - Stormwater Swale Post Excavation**

Colonial Pipeline Company - Bel Air Pump Station  
 2942 Charles Street, Fallston, Harford County, Maryland

Sample No.:	PX-OS-11	PX-OS-12	PX-OS-13	PX-OS-14	PX-OS-15	PX-OS-16	PX-OS-17	PX-OS-18	PX-OS-19	PX-OS-20												
Date Sampled:	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018	5/2/2018												
Sample Depth (ft):	3-3.5	3-3.5	3-3.5	3-3.5	2-2.5	2-2.5	2-2.5	2-2.5	2-2.5	1.5-2												
Lab Sample ID:	460-155226-1	460-155226-2	460-155226-3	460-155226-4	460-155226-5	460-155226-6	460-155226-7	460-155226-8	460-155226-9	460-155226-10												
Lab:	TestAmerica	TestAmerica	TestAmerica	TestAmerica	TestAmerica	TestAmerica	TestAmerica	TestAmerica	TestAmerica	TestAmerica												
Sample Media:	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil												
Parameter (mg/kg)	CAS No.	MD RCS																				
Acetone	67-64-1	7000	0.048	U	0.051	U	0.11	U	0.059	U	0.1	U	0.065	U	0.072	U	0.1	U	0.12	U	0.11	U
Benzene	71-43-2	12	0.0084	U	0.0091	U	0.019	U	0.01	U	0.018	U	0.012	U	0.013	U	0.018	U	0.021	U	0.019	U
Bromodichloromethane	75-27-4	10	0.0067	U	0.0072	U	0.015	U	0.0082	U	0.014	U	0.0091	U	0.01	U	0.014	U	0.016	U	0.015	U
Bromofom	75-25-2	81	0.008	U	0.0086	U	0.018	U	0.0099	U	0.017	U	0.011	U	0.012	U	0.017	U	0.02	U	0.018	U
Bromomethane	74-83-9	11	0.008	U*	0.0086	U*	0.018	U	0.009	U*	0.017	U*	0.011	U*	0.012	U*	0.017	U*	0.02	U	0.018	U
2-Butanone (MEK)	78-93-3	4700	0.098	U	0.11	U	0.22	U	0.12	U	0.21	U	0.13	U	0.15	U	0.21	U	0.24	U	0.22	U
Carbon Disulfide	75-15-0	780	0.0098	U	0.011	U	0.022	U	0.012	U	0.021	U	0.013	U	0.015	U	0.021	U	0.024	U	0.022	U
Carbon tetrachloride	56-23-5	4.9	0.015	U	0.016	U	0.033	U	0.018	U	0.031	U	0.02	U	0.022	U	0.031	U	0.036	U	0.033	U
Chlorobenzene	108-90-7	160	0.011	U	0.011	U	0.024	U	0.013	U	0.023	U	0.015	U	0.016	U	0.022	U	0.026	U	0.024	U
Chloroethane	75-00-3	220	0.016	U	0.018	U	0.037	U	0.02	U	0.035	U	0.023	U	0.025	U	0.035	U	0.04	U	0.037	U
Chloroform	67-66-3	78	0.0098	U	0.011	U	0.022	U	0.012	U	0.021	U	0.013	U	0.015	U	0.021	U	0.024	U	0.022	U
Chloromethane	74-87-3	--	0.0098	U	0.011	U	0.022	U	0.012	U	0.021	U	0.013	U	0.015	U	0.021	U	0.024	U	0.022	U
cis-1,2-Dichloroethene	156-59-2	78	0.012	U	0.012	U	0.026	U	0.014	U	0.025	U	0.016	U	0.018	U	0.024	U	0.028	U	0.026	U
cis-1,3-Dichloropropene	10061-01-5	6.4	0.0071	U	0.0077	U	0.016	U	0.0088	U	0.015	U	0.0098	U	0.011	U	0.015	U	0.017	U	0.016	U
Cyclohexane	110-82-7	--	0.012	U	0.012	U	0.026	U	0.014	U	0.025	U	0.016	J	0.018	U	0.024	U	0.028	U	0.026	U
1,2-Dibromo-3-chloropropane	96-12-8	0.2	0.01	U	0.011	U	0.023	U	0.013	U	0.022	U	0.014	U	0.016	U	0.021	U	0.025	U	0.023	U
Dibromochloromethane	124-48-1	7.6	0.0098	U	0.011	U	0.022	U	0.012	U	0.021	U	0.013	U	0.015	U	0.021	U	0.024	U	0.022	U
1,2-Dibromoethane	106-93-4	0.32	0.0084	U	0.0091	U	0.019	U	0.01	U	0.018	U	0.012	U	0.013	U	0.018	U	0.021	U	0.019	U
1,2-Dichlorobenzene	95-50-1	700	0.0098	U	0.011	U	0.022	U	0.012	U	0.021	U	0.013	U	0.015	U	0.021	U	0.024	U	0.022	U
1,3-Dichlorobenzene	541-73-1	23	0.015	U	0.016	U	0.033	U	0.018	U	0.031	U	0.02	U	0.022	U	0.031	U	0.036	U	0.033	U
1,4-Dichlorobenzene	106-46-7	27	0.015	U	0.016	U	0.033	U	0.018	U	0.031	U	0.02	U	0.022	U	0.031	U	0.036	U	0.033	U
Dichlorodifluoromethane	75-71-8	--	0.0062	U	0.0067	U	0.014	U	0.0077	U	0.013	U	0.0085	U	0.0095	U	0.013	U	0.015	U	0.014	U
1,1-Dichloroethane	75-34-3	1600	0.011	U	0.011	U	0.024	U	0.013	U	0.023	U	0.015	U	0.016	U	0.022	U	0.026	U	0.024	U
1,2-Dichloroethane	107-06-2	7	0.011	U	0.012	U	0.025	U	0.014	U	0.024	U	0.015	U	0.017	U	0.023	U	0.027	U	0.025	U
1,1-Dichloroethene	75-35-4	390	0.015	U	0.016	U	0.034	U	0.019	U	0.032	U	0.021	U	0.023	U	0.032	U	0.037	U	0.034	U
1,2-Dichloropropane	78-87-5	9.4	0.008	U	0.0086	U	0.018	U	0.0099	U	0.017	U	0.011	U	0.012	U	0.017	U	0.02	U	0.018	U
1,3-Dichloropropene (total)	542-75-6	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Ethylbenzene	100-41-4	780	0.013	U	0.014	U	0.03	U	0.027	J	0.029	U	0.3		0.02	U	0.13		0.033	U	0.03	U
2-Hexanone	591-78-6	--	0.032	U	0.034	U	0.072	U	0.039	U	0.069	U	0.044	U	0.049	U	0.067	U	0.078	U	0.072	U
Isopropyl Ether	108-20-3	--	0.0062	U	0.0067	U	0.014	U	0.0077	U	0.013	U	0.0085	U	0.0095	U	0.013	U	0.015	U	0.014	U
Isopropylbenzene	98-82-8	780	0.014	U	0.015	U	0.032	U	0.028	J	0.031	U	0.3		0.022	U	0.16		0.035	U	0.032	U
Methyl Acetate	79-20-9	--	0.026	U	0.028	U	0.058	U	0.032	U	0.055	U	0.068	J	0.049	J	0.054	U	0.063	U	0.058	U
Methyl Tert Butyl Ether (MTBE)	1634-04-4	160	0.0058	U	0.0062	U	0.013	U	0.0071	U	0.012	U	0.0079	U	0.0088	U	0.012	U	0.014	U	0.013	U
4-methyl-2-pentanone (MIBK)	108-10-1	--	0.028	U	0.03	U	0.063	U	0.035	U	0.06	U	0.038	U	0.043	U	0.059	U	0.069	U	0.063	U
Methylcyclohexane	108-87-2	--	0.0098	U	0.011	U	0.022	U	0.026	J	0.021	U	0.27		0.015	U	0.075	J	0.024	U	0.022	U
Methylene chloride	75-09-2	85	0.0093	U	0.01	U	0.021	U	0.012	U	0.02	U	0.013	U	0.014	U	0.02	U	0.023	J	0.021	U
Naphthalene	91-20-3	160	0.012	U	0.012	U	0.026	U	0.3	B	0.025	U	1.9	B	0.13	B	0.73	B	0.028	U	0.026	U
Styrene	100-42-5	1600	0.0076	U	0.0081	U	0.017	U	0.0093	U	0.016	U	0.01	U	0.011	U	0.016	U	0.019	U	0.017	U
tert-Amyl Alcohol (TAA)	75-85-4	--	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
tert-Amyl Ethyl Ether (TAAE)	919-94-8	--	NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
tert-Amyl Methyl Ether	994-05-8	--	0.0071	U	0.0077	U	0.016	U	0.0088	U	0.015	U	0.0098	U	0.011	U	0.015	U	0.017	U	0.016	U
tert-Butyl Alcohol	75-65-0	--	0.053	U	0.057	U	0.12	U	0.066	U	0.11	U	0.073	U	0.081	U	0.11	U	0.13	U	0.12	U
tert-Butyl Ethyl Ether	637-92-3	--	0.0076	U	0.0081	U	0.017	U	0.0093	U	0.016	U	0.01	U	0.011	U	0.016	U	0.019	U	0.017	U
1,1,2,2-Tetrachloroethane	79-34-5	3.2	0.0084	U	0.0091	U	0.019	U	0.01	U	0.018	U	0.012	U	0.013	U	0.018	U	0.021	U	0.019	U
Tetrachloroethene	127-18-4	1.2	0.016	U	0.017	U	0.036	U	0.02	U	0.034	U	0.022	U	0.024	U	0.034	U	0.039	U	0.036	U
Toluene	108-88-3	630	0.011	U	0.012	U	0.025	U	0.014	J	0.024	U	0.11		0.017	U	0.032	J	0.027	U	0.025	U
trans-1,2-Dichloroethene	156-60-5	160	0.008	U	0.0086	U	0.018	U	0.0099	U	0.017	U	0.011	U	0.012	U	0.017	U	0.02	U	0.018	U
trans-1,3-Dichloropropene	10061-02-6	6.4	0.0084	U	0.0091	U	0.019	U	0.01	U	0.018	U	0.012	U	0.013	U	0.018	U	0.021	U	0.019	U
Freon 113	76-13-1	--	0.015	U	0.016	U	0.034	U	0.019	U	0.032	U	0.021	U	0.023	U	0.032	U	0.037	U	0.034	U
1,1,1-Trichloroethane	71-55-6	16000	0.012	U	0.013	U	0.028	U	0.015	U	0.027	U	0.017	U	0.019	U	0.026	U	0.03	U	0.028	U
1,1,2-Trichloroethane	79-00-5	11	0.0036	U	0.0038	U	0.008	U	0.0044	U	0.0076	U	0.0049	U	0.0054	U	0.0075	U	0.0087	U	0.008	U
Trichloroethene	79-01-6	1.6	0.014	J	0.011	U	0.022	U	0.012	U	0.021	U	0.013	U	0.015	U	0.021	U	0.024	U	0.022	U
Trichlorofluoromethane	75-69-4	--	0.0067	U	0.0072	U	0.015	U	0.0082	U	0.014	U	0.094		0.01	U	0.014	U	0.016	U	0.015	U
1,2,4-Trichlorobenzene	120-82-1	78	0.012	U	0.013	U	0.027	U	0.015	U	0.026	U	0.016	U	0.018	U	0.025	U	0.029	U	0.027	U
Vinyl Chloride	75-01-4	0.09	0.0089	U	0.0096	U	0.02	U	0.011	U	0.019	U	0.012	U	0.014	U	0.019	U	0.022	U	0.02	U
m,p-Xylene	179601-23-1	--	0.012	U	0.013	U	0.028	U	0.11		0.027	U	1.3		0.063	J	0.54		0.03	U	0.028	U
o-Xylene	95-47-6	--	0.014	U	0.015	U	0.032	U	0.068		0.031	U	0.87		0.051	J	0.47		0.035	U	0.032	U
Xylenes (total)	1330-20-7	1600	ND		ND		ND		0.178		ND		2.17		0.114		1.01		ND		ND	
<b>Parameter (mg/kg)</b>	<b>CAS No.</b>	<b>MD NRCS</b>																				
Diesel Range Organics (DRO)	68476-30-2	620																				



**TABLE 5**  
**Soil Analytical Data Summary - Soil Boring Investigation**

Colonial Pipeline Company - Bel Air Pump Station  
2942 Charles Street, Fallston, Harford County, Maryland

Sample No.:	GP-1	GP-2	GP-3	GP-4	GP-4	GP-4	GP-5	GP-6	GP-7	GP-8	GP-10													
Date Sampled:	3/14/2018	3/14/2018	3/14/2018	3/14/2018	3/14/2018	3/14/2018	3/14/2018	3/14/2018	3/14/2018	3/14/2018	3/16/2018													
Sample Depth (ft):	8-8.5	7-7.5	12-12.5	8.5-9	14-14.5	16.5-17	8.5-9	8.5-9	14.5-15	13.5-14	18-18.5													
Lab Sample ID:	18031406-01	18031406-02	18031406-03	18031406-09	18031406-04	18031406-05	18031406-06	18031406-07	18031406-08	18031406-10	18031608-01													
Lab:	Caliber																							
Parameter (mg/kg)	CAS No.	MD RCS																						
Acetone	67-64-1	7000	0.071	U	0.052	U	0.094	U	0.063	U	0.059	U	0.081	U	0.067	U	0.056	U	0.055	U	0.07	U	0.058	U
Benzene	71-43-2	12	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Bromodichloromethane	75-27-4	10	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Bromoform	75-25-2	81	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Bromomethane	74-83-9	11	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
2-Butanone (MEK)	78-93-3	4700	0.071	U	0.052	U	0.094	U	0.063	U	0.059	U	0.081	U	0.067	U	0.056	U	0.055	U	0.07	U	0.058	U
Carbon Disulfide	75-15-0	780	0.014	U	0.01	U	0.019	U	0.013	U	0.012	U	0.016	U	0.013	U	0.011	U	0.011	U	0.014	U	0.012	U
Carbon tetrachloride	56-23-5	4.9	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Chlorobenzene	108-90-7	160	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Chloroethane	75-00-3	220	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Chloroform	67-66-3	78	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Chloromethane	74-87-3	--	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
cis-1,2-Dichloroethene	156-59-2	78	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
cis-1,3-Dichloropropene	10061-01-5	6.4	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Cyclohexane	110-82-7	--	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,2-Dibromo-3-chloropropane	96-12-8	0.2	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Dibromochloromethane	124-48-1	7.6	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,2-Dibromoethane	106-93-4	0.32	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,2-Dichlorobenzene	95-50-1	700	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,3-Dichlorobenzene	541-73-1	23	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,4-Dichlorobenzene	106-46-7	27	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Dichlorodifluoromethane	75-71-8	--	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,1-Dichloroethane	75-34-3	1600	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,2-Dichloroethane	107-06-2	7	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,1-Dichloroethene	75-35-4	390	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,2-Dichloropropane	78-87-5	9.4	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,3-Dichloropropene (total)	542-75-6	--	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
Ethylbenzene	100-41-4	780	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
2-Hexanone	591-78-6	--	0.014	U	0.01	U	0.019	U	0.013	U	0.012	U	0.016	U	0.013	U	0.011	U	0.011	U	0.014	U	0.012	U
Isopropyl Ether	108-20-3	--	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Isopropylbenzene	98-82-8	780	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Methyl Acetate	79-20-9	--	0.036	U	0.026	U	0.047	U	0.031	U	0.03	U	0.041	U	0.034	U	0.028	U	0.027	U	0.035	U	0.029	U
Methyl Tert Butyl Ether (MTBE)	1634-04-4	160	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
4-methyl-2-pentanone (MIBK)	108-10-1	--	0.014	U	0.01	U	0.019	U	0.013	U	0.012	U	0.016	U	0.013	U	0.011	U	0.011	U	0.014	U	0.012	U
Methylcyclohexane	108-87-2	--	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Methylene chloride	75-09-2	85	0.036	U	0.026	U	0.047	U	0.031	U	0.03	U	0.041	U	0.034	U	0.028	U	0.027	U	0.035	U	0.029	U
Naphthalene	91-20-3	160	0.014	U	0.01	U	0.019	U	0.013	U	0.012	U	0.016	U	0.013	U	0.011	U	0.011	U	0.014	U	0.012	U
Styrene	100-42-5	1600	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
tert-Amyl Alcohol (TAA)	75-85-4	--	0.036	U	0.026	U	0.047	U	0.031	U	0.03	U	0.041	U	0.034	U	0.028	U	0.027	U	0.035	U	0.029	U
tert-Amyl Ethyl Ether (TAAE)	919-94-8	--	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
tert-Amyl Methyl Ether	994-05-8	--	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
tert-Butyl Alcohol	75-65-0	--	0.036	U	0.026	U	0.047	U	0.031	U	0.03	U	0.041	U	0.034	U	0.028	U	0.027	U	0.035	U	0.029	U
tert-Butyl Ethyl Ether	637-92-3	--	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,1,2,2-Tetrachloroethane	79-34-5	3.2	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Tetrachloroethene	127-18-4	1.2	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Toluene	108-88-3	630	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
trans-1,2-Dichloroethene	156-60-5	160	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
trans-1,3-Dichloropropene	10061-02-6	6.4	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Freon 113	76-13-1	--	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,1,1-Trichloroethane	71-55-6	16000	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,1,2-Trichloroethane	79-00-5	11	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Trichloroethene	79-01-6	1.6	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
Trichlorofluoromethane	75-69-4	--	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007	U	0.006	U	0.005	U	0.007	U	0.006	U
1,2,4-Trichlorobenzene	120-82-1	78	0.007	U	0.005	U	0.009	U	0.006	U	0.006	U	0.008	U	0.007									

**TABLE 6**  
Groundwater Analytical Data Summary - Temporary & Monitoring Wells

Colonial Pipeline Company - Bel Air Pump Station  
2942 Charles Street, Fallston, Harford County, Maryland

	Sample No.:	GP-3	GP-4	GP-5	GP-7	MW-1	MW-2	MW-2	MW-3	MW-4	MW-5	MW-6	
	Date Sampled:	3/14/2018	3/14/2018	3/14/2018	3/14/2018	4/5/2018	4/6/2018	4/16/2018	4/5/2018	4/5/2018	4/6/2018	4/6/2018	
	Lab Sample ID:	18031407-03	18031407-01	18031407-02	18031407-04	18040603-01	18040603-02	18041603-01	18040603-03	18040603-04	18040603-05	18040603-06	
	Lab:	Caliber											
Parameter (µg/L)	CAS No.	MD GWQS	GP-3	GP-4	GP-5	GP-7	MW-1	MW-2	MW-2	MW-3	MW-4	MW-5	MW-6
Acetone	67-64-1	550	25 U	25 U									
Benzene	71-43-2	5	1 U	1 U	1 U	1 U	1 U	11	59	1 U	1 U	1 U	1 U
Bromodichloromethane	75-27-4	80	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromoform	75-25-2	80	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Bromomethane	74-83-9	0.85	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone (MEK)	78-93-3	700	25 U	25 U									
Carbon Disulfide	75-15-0	100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon tetrachloride	56-23-5	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chlorobenzene	108-90-7	100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	75-00-3	3.6	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	67-66-3	80	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	74-87-3	19	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	156-59-2	70	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	10061-01-5	0.44	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cyclohexane	110-82-7	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromo-3-chloropropane	96-12-8	0.2	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	124-48-1	80	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dibromoethane	106-93-4	0.05	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichlorobenzene	95-50-1	600	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-Dichlorobenzene	541-73-1	1.8	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,4-Dichlorobenzene	106-46-7	75	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	75-71-8	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	75-34-3	90	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	107-06-2	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	75-35-4	7	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	78-87-5	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,3-Dichloropropene (total)	542-75-6	--	ND	ND									
Ethylbenzene	100-41-4	700	1 U	1 U	1 U	1 U	1 U	11	1 U	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	--	25 U	25 U									
Isopropyl Ether	108-20-3	--	25 U	25 U									
Isopropylbenzene	98-82-8	66	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Acetate	79-20-9	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methyl Tert Butyl Ether (MTBE)	1634-04-4	20	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-methyl-2-pentanone (MIBK)	108-10-1	630	25 U	25 U									
Methylcyclohexane	108-87-2	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	75-09-2	5	10 U	10 U									
Naphthalene	90-20-3	0.65	10 U	10 U									
Styrene	100-42-5	100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
tert-Amyl Alcohol (TAA)	75-85-4	--	25 U	25 U									
tert-Amyl Ethyl Ether (TAEE)	919-94-8	--	25 U	25 U									
tert-Amyl Methyl Ether	994-05-8	--	25 U	25 U									
tert-Butyl Alcohol	75-65-0	--	25 U	25 U									
tert-Butyl Ethyl Ether	637-92-3	--	25 U	25 U									
1,1,2,2-Tetrachloroethane	79-34-5	0.053	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	127-18-4	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Toluene	108-88-3	1000	1 U	1 U	1 U	1 U	1 U	29	200	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	156-60-5	100	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	10061-02-6	0.44	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Freon 113	76-13-1	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	71-55-6	200	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	79-00-5	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene	79-01-6	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Trichlorofluoromethane	75-69-4	--	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2,4-Trichlorobenzene	120-82-1	70	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl Chloride	75-01-4	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
m,p-Xylene	179601-23-1	--	5 U	5 U	5 U	5 U	5 U	6	62	5 U	5 U	5 U	5 U
o-Xylene	95-47-6	--	5 U	5 U	5 U	5 U	5 U	6	36	5 U	5 U	5 U	5 U
Xylenes (total)	1330-20-7	10000	ND	ND	ND	ND	ND	12	98	ND	ND	ND	ND
Diesel Range Organics (DRO)	68476-30-2	47	470	NA	230 U	NA	200 U	280	NA	200 U	220	200 U	210
Gasoline Range Organics (GRO)	8006-61-9	47	200 U	200 U	200 U	310	200 U	200 U	NA	200 U	200 U	200 U	200 U

Values are reported in micrograms per liter (µg/L)  
 GWQS = MD Groundwater Quality Standard (GWQS) for Type I Aquifers  
 Bold indicates concentrations above the MD GWQS  
 ND = Not Detected  
 NA = Not Analyzed: For GP borings, there was insufficient volume for DRO sample collection. For MW-2 (041618), only volatile organic compounds were re-sampled to confirm the benzene detection.  
 U = Compound not detected above PQL  
 Values in italics indicate PQL above applicable criterion.

**TABLE 7**  
**Groundwater Analytical Data Summary - Station & Residential Wells**

Colonial Pipeline Company - Bel Air Pump Station  
 2942 Charles Street, Fallston, Harford County, Maryland

Sample No.:	Bel Air Station	Hornbeck	Hurlock	Kaminkow	Kaminkow -Son	Kaminkow-	Parris (A)	Parris (B)	Potter	Rasmussen	Reese	TransCanada				
Date Sampled:	3/12/2018	3/16/2018	3/16/2018	3/16/2018	3/16/2018	3/16/2018	3/16/2018	3/16/2018	3/16/2018	3/16/2018	3/16/2018	3/16/2018				
Lab Sample ID:	18031209-01	18031609-09	18031609-01	18031609-02	18031609-05	18031609-03	18031609-07	18031609-08	18031609-11	18031609-04	18031609-10	18031609-06				
Lab:	Caliber	Caliber	Caliber	Caliber	Caliber	Caliber	Caliber	Caliber	Caliber	Caliber	Caliber	Caliber				
Parameter (µg/L)	CAS No.	MD GWQS														
Benzene	71-43-2	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromobenzene	108-86-1	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromochloromethane	74-97-5	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	75-27-4	80	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromoform	75-25-2	80	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	74-83-9	0.85	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Carbon tetrachloride	56-23-5	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chlorobenzene	108-90-7	100	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroethane	75-00-3	3.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloroform	67-66-3	80	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Chloromethane	74-87-3	19	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-Chlorotoluene	95-49-8	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
4-Chlorotoluene	106-43-4	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,2-Dichloroethene	156-59-2	70	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
cis-1,3-Dichloropropene	10061-01-5	0.44	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromo-3-chloropropane	96-12-8	0.2	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromochloromethane	124-48-1	80	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dibromoethane	106-93-4	0.05	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dibromomethane	74-95-3	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichlorobenzene	95-50-1	600	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichlorobenzene	541-73-1	1.8	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-Dichlorobenzene	106-46-7	75	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Dichlorodifluoromethane	75-71-8	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethane	75-34-3	90	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloroethane	107-06-2	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-Dichloroethene	75-35-4	7	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-Dichloropropane	78-87-5	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropane	142-28-9	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2,2-Dichloropropane	594-20-7	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-Dichloropropene (total)	542-75-6	--	ND		ND		ND		ND		ND		ND		ND	
1,1-Dichloropropene	563-58-6	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Ethylbenzene	100-41-4	700	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropyl Ether	108-20-3	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Isopropylbenzene	98-82-8	66	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methyl Tert Butyl Ether (MTBE)	1634-04-4	20	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Methylene chloride	75-09-2	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Naphthalene	91-20-3	0.65	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
n-Butylbenzene	104-51-8	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
p-Isopropyltoluene	99-87-6	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Propylbenzene	103-65-1	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
sec-Butylbenzene	135-98-8	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Styrene	100-42-5	100	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Amyl Alcohol (TAA)	75-85-4	--	5	U	5	U	5	U	5	U	5	U	5	U	5	U
tert-Amyl Ethyl Ether (TAEE)	919-94-8	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Amyl Methyl Ether	994-05-8	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butyl Alcohol	75-65-0	--	5	U	5	U	5	U	5	U	5	U	5	U	5	U
tert-Butyl Ethyl Ether	637-92-3	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
tert-Butylbenzene	98-06-6	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1,2-Tetrachloroethane	630-20-6	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-Tetrachloroethane	79-34-5	0.053	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene	127-18-4	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Toluene	108-88-3	1000	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,2-Dichloroethene	156-60-5	100	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
trans-1,3-Dichloropropene	10061-02-6	0.44	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichlorobenzene	87-61-6	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-Trichloroethane	71-55-6	200	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2-Trichloroethane	79-00-5	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichloroethene	79-01-6	5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Trichlorofluoromethane	75-69-4	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-Trichloropropane	96-18-4	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trichlorobenzene	120-82-1	70	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-Trimethylbenzene	95-63-6	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene	108-67-8	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Vinyl Chloride	75-01-4	2	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
m,p-Xylene	179601-23-1	--	1	U	1	U	1	U	1	U	1	U	1	U	1	U
o-Xylene	95-47-6	--	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Xylenes (total)	1330-20-7	10000	ND		ND		ND		ND		ND		ND		ND	

Values are reported in micrograms per liter (µg/L)  
 GWQS = MD Groundwater Quality Standard (GWQS) for Type I Aquifers  
 Bold indicates concentrations above the MD GWQS  
 ND = Not Detected  
 U = Compound not detected above PQL  
 Values in italics indicate PQL above applicable criterion.

**TABLE 8**  
**Surface Water Analytical Data Summary**



Colonial Pipeline Company - Bel Air Pump Station  
2942 Charles Street, Fallston, Harford County, Maryland

<b>Sample No.:</b>	WBWR - Upstream	WBWR - Ditch Confluence Downstream	
<b>Date Sampled:</b>	3/12/2018	3/12/2018	3/12/2018
<b>Lab Sample ID:</b>	18031208-01	18031208-02	18031208-03
<b>Lab:</b>	Caliber	Caliber	Caliber

Parameter (µg/L)	CAS No.	MD GWQS	Caliber		Caliber		Caliber	
Acetone	67-64-1	550	25	U	25	U	25	U
Benzene	71-43-2	5	1	U	1	U	1	U
Bromodichloromethane	75-27-4	80	5	U	5	U	5	U
Bromoform	75-25-2	80	5	U	5	U	5	U
Bromomethane	74-83-9	0.85	5	U	5	U	5	U
2-Butanone (MEK)	78-93-3	700	25	U	25	U	25	U
Carbon Disulfide	75-15-0	100	5	U	5	U	5	U
Carbon tetrachloride	56-23-5	5	5	U	5	U	5	U
Chlorobenzene	108-90-7	100	5	U	5	U	5	U
Chloroethane	75-00-3	3.6	5	U	5	U	5	U
Chloroform	67-66-3	80	5	U	5	U	5	U
Chloromethane	74-87-3	19	5	U	5	U	5	U
cis-1,2-Dichloroethene	156-59-2	70	5	U	5	U	5	U
cis-1,3-Dichloropropene	10061-01-5	0.44	5	U	5	U	5	U
Cyclohexane	110-82-7	--	5	U	5	U	5	U
1,2-Dibromo-3-chloropropane	96-12-8	0.2	5	U	5	U	5	U
Dibromochloromethane	124-48-1	80	5	U	5	U	5	U
1,2-Dibromoethane	106-93-4	0.05	5	U	5	U	5	U
1,2-Dichlorobenzene	95-50-1	600	5	U	5	U	5	U
1,3-Dichlorobenzene	541-73-1	1.8	5	U	5	U	5	U
1,4-Dichlorobenzene	106-46-7	75	5	U	5	U	5	U
Dichlorodifluoromethane	75-71-8	--	5	U	5	U	5	U
1,1-Dichloroethane	75-34-3	90	5	U	5	U	5	U
1,2-Dichloroethane	107-06-2	5	5	U	5	U	5	U
1,1-Dichloroethene	75-35-4	7	5	U	5	U	5	U
1,2-Dichloropropane	78-87-5	5	5	U	5	U	5	U
1,3-Dichloropropene (total)	542-75-6	--	ND		ND		ND	
Ethylbenzene	100-41-4	700	1	U	1	U	1	U
2-Hexanone	591-78-6	--	25	U	25	U	25	U
Isopropyl Ether	108-20-3	--	25	U	25	U	25	U
Isopropylbenzene	98-82-8	66	5	U	5	U	5	U
Methyl Acetate	79-20-9	--	5	U	5	U	5	U
Methyl Tert Butyl Ether (MTBE)	1634-04-4	20	5	U	5	U	5	U
4-methyl-2-pentanone (MIBK)	108-10-1	630	25	U	25	U	25	U
Methylcyclohexane	108-87-2	--	5	U	5	U	5	U
Methylene chloride	75-09-2	5	10	U	10	U	10	U
Nepthalene	90-20-3	0.65	10	U	10	U	10	U
Styrene	100-42-5	100	5	U	5	U	5	U
tert-Amyl Alcohol (TAA)	75-85-4	--	25	U	25	U	25	U
tert-Amyl Ethyl Ether (TAEE)	919-94-8	--	25	U	25	U	25	U
tert-Amyl Methyl Ether	994-05-8	--	25	U	25	U	25	U
tert-Butyl Alcohol	75-65-0	--	25	U	25	U	25	U
tert-Butyl Ethyl Ether	637-92-3	--	25	U	25	U	25	U
1,1,2,2-Tetrachloroethane	79-34-5	0.053	5	U	5	U	5	U
Tetrachloroethene	127-18-4	5	5	U	5	U	5	U
Toluene	108-88-3	1000	1	U	1	U	1	U
trans-1,2-Dichloroethene	156-60-5	100	5	U	5	U	5	U
trans-1,3-Dichloropropene	10061-02-6	0.44	5	U	5	U	5	U
Freon 113	76-13-1	--	5	U	5	U	5	U
1,1,1-Trichloroethane	71-55-6	200	5	U	5	U	5	U
1,1,2-Trichloroethane	79-00-5	5	5	U	5	U	5	U
Trichloroethene	79-01-6	5	5	U	5	U	5	U
Trichlorofluoromethane	75-69-4	--	5	U	5	U	5	U
1,2,4-Trichlorobenzene	120-82-1	70	5	U	5	U	5	U
Vinyl Chloride	75-01-4	2	1	U	1	U	1	U
m,p-Xylene	179601-23-1	--	5	U	5	U	5	U
o-Xylene	95-47-6	--	5	U	5	U	5	U
Xylenes (total)	1330-20-7	10000	ND		ND		ND	
Diesel Range Organics (DRO)	68476-30-2	47	200	U	200	U	200	U
Gasoline Range Organics (GRO)	8006-61-9	47	200	U	200	U	200	U

Values are reported in micrograms per liter (µg/L)  
 GWQS = MD Groundwater Quality Standard (GWQS) for Type I Aquifers  
 Bold indicates concentrations above the MD GWQS  
 ND = Not Detected  
 U = Compound not detected above PQL  
 Values in italics indicate PQL above applicable criterion.

## **APPENDIX A**

Maryland Department of Environment Reports of Observations:

March 12, 2018

April 4, 2018

**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**

<b>Type of Inspection/Observations:</b> B-6	<b>Date:</b> March 12, 2018
<b>Site/Facility Name:</b> Colonial Pipeline – Belair Pumping Station	<b>Facility ID #:</b> N/A
<b>Address:</b> 2942 Charles Street	<b>Case #:</b> 18-0459HA
<b>City / County:</b> Fallston, MD 21050 – Harford County	<b>Permit #:</b> N/A

**Remarks:** On this date, this writer met with representatives of Colonial Pipeline (Colonial), Harford County Health Department (HAHD), Harford County HazMat (HAZMAT) and Maryland Department of the Environment’s Oil Control Program (MDE-OCP). Stan Carpenter of Colonial provided a full update of the incident, recovery efforts to date, and the preliminary subsurface investigations (SSI) conducted to determine the extent of petroleum impacts related to the release of diesel/kerosene reported on March 7, 2018. A more thorough SSI is planned to begin later this week, however until the geoprobe rig was available and the proper permits were obtained, hand augured shallow boring were advanced to determine initial impacts to this 16.08 acre parcel and depths of excavation required.

In addition to this writer, parties present were as follows, but not limited to:  
 Stan Carpenter, Cliff Kazmarek, Chuck Glacken, Rob Shenk and Tara Ryan of Colonial Pipeline Michael Brunicke and Ray Ryan - HAZMAT  
 Lisa Kalama - HAHD

Below is a highlighted summary of Mr. Carpenter’s briefing. A full detailed accounting of all actions taken will be provided in the pending *Subsurface Investigation Report*.

- 3-5-18: A site visit was conducted by Colonial personnel. No obvious odors or fuel was present on the surface at the site.
- 3-7-18 (am to mid day): Colonial personnel conducted a routine site visit and fuel odors were noted upon arrival to the site. Colonial immediately began opening valve observation ports. Liquid phase hydrocarbons (LPH) were immediately evident in numerous valve observation ports. MDE and HAZMAT were notified. The pumping loop system was immediately isolated from the mainline system. The mainline was shut down and upstream and downstream block valves were closed thereafter. Sorbent materials were deployed to recover fuel noted on the water in the storm water pond and the outfall valve to the pond drainage outfall was closed. The drainage outfall from the pond has been monitored and it appears that no LPH has been discharged from the pond.
- 3-7-18 (pm): Miller Environmental arrived on-site and began vacuum recovery of fuel on the pond, in the oil water separator, and in the valve observation ports. Continuous air monitoring has occurred at the site during the duration of the clean-up. They are using portable meters to provide air monitoring for a minimum of LEL, O2, and benzene. As fuel was recovered from each impacted valve observation port, the valve observation ports were monitored for rebounding thicknesses of LPH. Hand excavation of the yard drains within the pumping loop was initiated first in the area of those sumps where LPH returned upon vacuum evacuation. The leak was isolated to the alternate discharge (“kicker”) line. Containment was utilized to prevent additional release of fuel until the isolated portion of the main trunk line cleared of any residual fuel it contained.
- 3-8-18 (early am): Upon completion of the draining of the line, 2 corrosion pin holes were discovered in the 20 -inch diameter kick back line, approximately 16 inches below the top of the line. The compromised portion of the line was repaired in accordance with standard procedures.

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

- 3-8-18 (during daylight hours): To determine initial impacts and depths of excavation required, a series of 14 hand augured borings were advanced to an approximate depth of 10 feet below ground surface. A boring was completed in a downgradient direction from the release point along the 30 inch main to ensure that no fuel was migrating along this potential preferential pathway. Additional borings were advanced in the vicinity of the buried storm water yard drain lines located within the confines of the pumping station loop. Preliminary results suggest that this yard drain system was found to be the pathway that transported fuel under head pressure to the oil water separator and subsequently the storm water management pond. The underlying soils appear to be tight clay on top of saprolite. There is limited evidence to suggest that fuel impacts have extended deeper than the 10 feet below ground surface, at this time. The pending geoprobe SSI will be utilized to confirm this. Following repairs, the line was restarted following consultation with PHMSA. The line remains exposed while under operational conditions to monitor for any additional undiscovered leaks and confirm the integrity of the repair.
- The SSI will consist of direct push soil borings for collection of soil lithology and samples. The rig will be equipped with augurs to install monitoring wells as directed by the MDE-OCP. At this time they are hoping to mobilize as soon as the rig is available from another job site.

Based upon the above information MDE has directed the following:

1. By no later than March 21, 2018, submit a written initial spill report to Thomas Yoo of the Oil Control Program. The report must provide all items as outlined in his March 8, 2018 email.
2. There is a well present on-site, which is designated as non-potable by Colonial. To anyone's immediate knowledge, it has never been sampled. It is utilized for flushing a toilet and any other surface water needs for the site, but it is not utilized for drinking purposes. Colonial is unaware of the construction of this well, but continues to check internal documents. We are hoping that a record search conducted of the HAHD's parcel records may provide a well completion report for this well. For characterization purposes, Colonial collected a drinking water sample from this well today. The water sample collected is to be analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene, via EPA Method 524.2.
3. Three surface water samples were also collected today. The first was collected from the pond drainage ditch approximately 75 yards from the storm water management pond discharge, but before the ditch crosses under Charles Street. The second and third samples were collected from West Branch Winter's Run, one up gradient and one down gradient of the confluence of the ditch. These three samples must be analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, via EPA Method 8260, and TPH/GRO and TPH/DRO via EPA Method 8015.
4. The Department will require collection of drinking water well samples from adjacent properties. Continue to work with the Department to complete this task. All drinking water samples collected must be collected as close to the pressure tank as possible and prior to any treatment. All samples collected must be analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, via EPA Method 524.2.
5. Following excavation of the petroleum impacted soils, post excavation/bottom samples must be collected every ten feet of exposed piping. Additional samples must be collected if elevated PID readings are obtained and supplemental excavation is not possible due to adjacent pipeline structures. All soils must be collected in accordance with EPA 5035 collection method (terra cores or encores) and all soil samples must be analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, via EPA Method 8260, and TPH/GRO and TPH/DRO via EPA Method 8015.
6. The Department will not require side wall samples within the loop as the pending SSI will serve to complete horizontal and vertical delineation of petroleum impacts.
7. Currently approximately 80 tons of petroleum impacted soils have been excavated. All excavated soils must be stored on

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

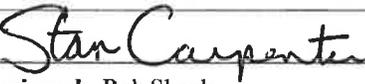
plastic and covered with plastic until transported off-site for disposal at a State of Maryland approved disposal facility. All soil disposal receipts must be included as part of the *Subsurface Investigation Report*.

8. Based upon the emergency nature of this release, the use of private drinking water wells in the immediate vicinity, and the unknown quantity of borings that will be necessary to properly assess the subsurface, the Department approves the pending emergency SSI prior to obtaining standard drilling permits. Within 15 days of completing the investigation, contact Harford County Health Department to obtain the required number of well permits.
9. Continue the emergency assessment of the subsurface portion of this release.
  - a. All temporary hand augured borings must be abandoned.
  - b. Any temporary hand augured boring exhibiting LPH must be converted to a permanent recovery point. **Any permanent recovery point installed within the pumping loop must NOT exceed 10 feet in depth.** LPH recovery must continue in these points, but we do not want to draw the known LPH deeper into the formation.
  - c. Direct push borings must be advanced to completely delineate the horizontal and vertical extent of the release. Boring locations may be field modified based on the locations of underground utilities. If field conditions in any advanced boring reveal the presence of petroleum impacts, the Department will require Colonial to step-out ten feet and advance additional borings to complete the subsurface assessment. The Department understands that Colonial plans to start the assessment at the perimeter and work into the area of the pumping loop. Ensure that the historic valley channel based on pre-development topography is fully assessed as a potential preferential pathway.
  - d. All borings outside of the pumping loop area, must be either: be extended to first groundwater, or to a depth of 25 feet below current ground surface. If first groundwater is not encountered before the depth of 25 feet achieved, consult with the Department prior to drilling deeper.
  - e. All borings advanced during this investigation must be either: converted to permanent monitoring wells (upon consultation with the Department) or properly abandoned following soil characterization, sampling, and completion of this phase of site assessment.
  - f. During completion of direct push borings, the Department requires that soils be screened with a PID at regular intervals. Field screening of the soil cores must be performed utilizing a consistent methodology that will not be adversely affected by site conditions. The use of glass jars or sealable plastic bags to store a portion of the sample material for screening purposes is recommended. Soil samples for laboratory analysis must be collected in each boring at the ground water interface and from the location exhibiting the highest PID response. If the highest PID response is observed at the deepest interval, only one soil sample will need to be submitted. In the event no PID readings are encountered a soil sample will be collected at the terminus of the boring. All soil samples submitted for laboratory analysis must be collected and field preserved in accordance with EPA Method 5035. All soil samples submitted for laboratory analysis must be analyzed for full-suite 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 8015B.
  - g. Where groundwater is encountered during the subsurface investigation with the Geoprobe unit, representative samples must be collected and analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, using EPA Method 8260 and for TPH-DRO and TPH-GRO using EPA Method 8015B.
10. The Department will require submission of a *Site Investigation Report* **not later than 45 days following the completion of the emergency subsurface investigation**. When submitting sampling results, include a detailed accounting of the release and the steps of the investigations process; data summary tables (including fuel oxygenates and naphthalene) and scaled site maps showing actual sampling locations (i.e., soil boring/monitoring well locations); any dissolved and liquid phase hydrocarbon thicknesses encountered should also be depicted on maps encountered. Qualitative and/or quantitative discussions should be presented, including recommendations for further actions (additional characterization or remedial options

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

**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.

<b>MDE Representative:</b> Susan Bull, Supervisor	<b>Person Interviewed:</b> Stan Carpenter
<b>Signature:</b>	<b>Signature:</b> 
	<b>Person Interviewed:</b> Rob Shenk
	<b>Signature:</b> 

**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**

<b>Type of Inspection/Observations:</b> B-6	<b>Date:</b> April 4, 2018
<b>Site/Facility Name:</b> Colonial Pipeline – Belair Pumping Station	<b>Facility ID #:</b> N/A
<b>Address:</b> 2942 Charles Street	<b>Case #:</b> 18-0459HA
<b>City / County:</b> Fallston, MD 21050 – Harford County	<b>Permit #:</b> N/A

**Remarks:** This writer stopped at the subject site to receive an update on site investigation and restoration completed to date. Upon arrival, this writer spoke with Terra Ryan of Colonial Pipeline. The initial spill excavation and restoration has been completed and the storm drain, for the most part has been restored. Select areas have been backfilled to ensure structural stabilization. To date, 306.5 tons of petroleum impacted soils have been excavated and hauled to Soil Safe for disposal. They have begun “Phase 2” of the excavation. During this process they are working to expose all underground pipes and components within the yard. This exposure is occurring in 10-15 foot sections and is all hand excavated because of the proximity to the lines. Because work is slow, they will be bringing in a second crew to assist. This “dig” is being done to assess the quality of the pipeline’s protective outer coating, because any coating exposed to the standing fuel will degrade rapidly. The section of pipe must be cleaned, sandblasted and the coating restored. Any additional petroleum impacted soils are added to the stockpile for off-site disposal. Post excavation sampling is planned in these exposed areas and will follow the same format as utilized within the last few weeks in the rest of the yard. Because of this work, activities at this site will continue for the next few weeks maybe months and petroleum impacted soil recovery totals will continue to increase. In addition, the monitoring wells were surveyed and sampled on this date, the results should be available within two weeks.

**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.

<b>MDE Representative:</b> Susan Bull, Supervisor	<b>Person Interviewed:</b> Stan Carpenter
<b>Signature:</b> <i>Susan R Bull, 4-4-18</i>	<b>Signature:</b>
	<b>Person Interviewed:</b> Rob Shenk
	<b>Signature:</b>

**APPENDIX B**  
Public Notifications



April 26, 2018

**CERTIFIED MAIL**

**RE: INFORMATIONAL NOTIFICATION LETTER**

**Case No. 2018-0459-HA**

**Colonial Pipeline Company – Bel Air Station**

**2942 Charles Street, Fallston**

**Harford County, Maryland**

Dear Resident or Property Owner:

This letter is provided in compliance with Section 4-411.2 of the Environment Article, Annotated Code of Maryland. The intent of this letter is to notify you that a petroleum-related compound has been detected in a groundwater monitoring well sample at the above-referenced property at a concentration exceeding the statutory notification level. As a property owner within 0.5-mile of the subject property (see enclosed map), notification is required to be sent to you to provide information about the detection at the referenced facility.

On March 7, 2018, Colonial Pipeline Company (Colonial) reported to the Maryland Department of the Environment (the Department) that a release of oil occurred at the site, which was discovered during a routine facility inspection. Emergency recovery of liquid phase hydrocarbons (LPH) and petroleum impacted soil and water began the same day. Investigation of the cause of the release found two corrosion perforations on the 20-inch alternate discharge line, which were repaired on March 8, 2018. On March 12, 2018, a subsurface investigation was initiated to characterize the extent of petroleum impacts at the site. As part of that investigation, six groundwater monitoring wells were installed, which were sampled on April 4, 2018.

On April 13, 2018, the Department received notification that a petroleum-related compound was detected in the groundwater sample collected from monitoring well MW-2. The analytical results reported a detection of benzene at a concentration of 11 parts per billion (ppb), which exceeds the benzene notification standard of 5 ppb. The sampling results for the other five monitoring wells were found to be non-detect or below regulatory levels for petroleum-related compounds. A confirmatory sample was collected from MW-2 on April 16, 2018, and the results confirmed the presence of benzene at a concentration of 59 ppb.

On March 16, 2018, an environmental contractor collected samples from private supply wells located on ten properties adjacent to the Colonial facility. Personnel from the Oil Control Program and the Harford County Health Department oversaw the collection of the private supply well samples. All of the private supply well sampling results were non-detect for petroleum-related compounds.

In response to the detection of benzene, the Department opened a groundwater investigation case for the Colonial Pipeline – Bel Air Station. The Department has informed the Harford County Health Department of this detection and of the opened investigation. Both agencies are working together to evaluate potential risks to the community. At this time, the Department does not believe there is an immediate health risk to the community and will continue to oversee the groundwater investigation and cleanup.

If your property is served by a private supply well, you may elect to have your well water tested by a private laboratory. Your decision should be based on the proximity of your well to the source of the

contamination and whether or not you have noticed any change in the taste or odor of your well water. For your convenience, enclosed is a list of private laboratories that can assist you should you decide to have your well water tested. The recommended test to request is U.S. EPA Method 524.2 for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene. Samples should be collected by a certified sampler and collected from a location prior to the water passing through any treatment device.

A project fact sheet has been prepared to provide information regarding the groundwater investigation at the site (copy enclosed). The fact sheet may be updated periodically as the case progresses. The fact sheet and other documents related to the investigation will be posted to the Oil Control Program's Remediation Sites internet page: <http://mde.maryland.gov/programs/LAND/OilControl/Pages/remediationsites.aspx>.

If you have any questions, please contact Ms. Susan Bull, Eastern Region Supervisor, at 410-537-3499 (email: [susan.bull@maryland.gov](mailto:susan.bull@maryland.gov)) or Mr. Drew Miller, Remediation Division Chief, at 410-537-3389 (email: [andrew.miller@maryland.gov](mailto:andrew.miller@maryland.gov)).

Sincerely,



Christopher H. Ralston, Administrator  
Oil Control Program

SRB/nln

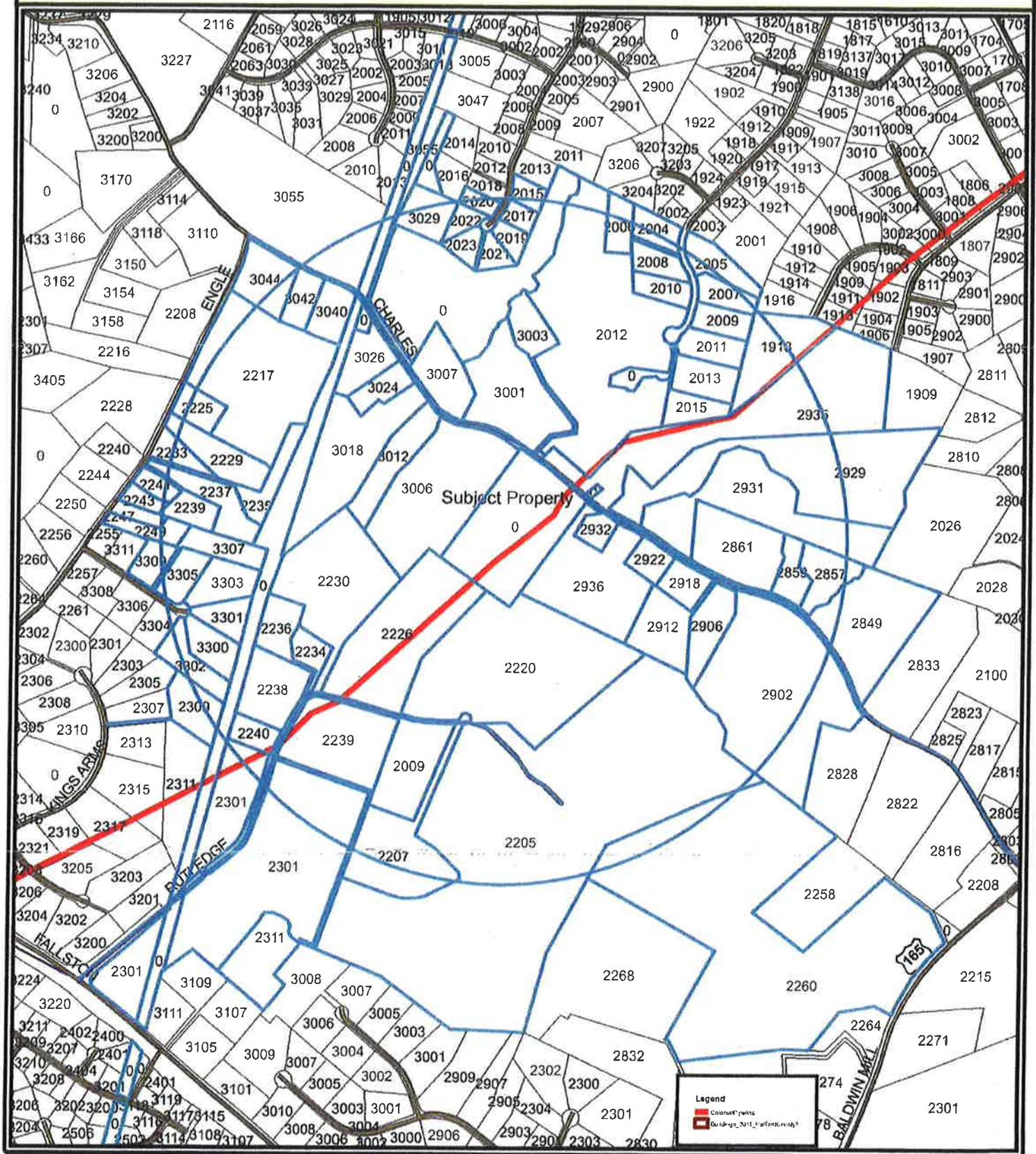
Enclosures:   Half-Mile Radius Map  
                  Fact Sheet – Colonial Pipeline Bel Air Station  
                  Testing Laboratory List

cc:   Mr. Stanley Carpenter (Colonial Pipeline Company)  
      Dr. Russell W. Moy (Harford County Health Department)  
      Ms. Julie Mackert (Harford County Health Department)  
      Mr. Andrew B. Miller  
      Ms. Hilary Miller

<b>Name</b>	<b>Number</b>	<b>Street Name</b>	<b>City</b>	<b>State</b>	<b>Zip</b>	<b>Mailing Address</b>	
Stephen B and Darlene L Ramsey	2260	Baldwin Mill Rd	Fallston	MD	21047		
Chester A and Janet L Coughenour	2849	Charles St	Fallston	MD	21047		
John R Rist	2857	Charles St	Fallston	MD	21047		
Kristin Stock	2859	Charles St	Fallston	MD	21047		
Shawn A and Laura A Mooney	2861	Charles St	Fallston	MD	21047		
Rodney and Sandra O'Neal	2902	Charles St	Fallston	MD	21047	9702 Redwing Dr	Perry Hall MD 21128
Christopher and Mary Carol Jacob	2906	Charles St	Fallston	MD	21047		
Charles C Gast Jr and Mary F Gast	2912	Charles St	Fallston	MD	21047		
Gregory and Karen Reed	2918	Charles St	Fallston	MD	21047		
Francis D and Virginia N Riley	2922	Charles St	Fallston	MD	21047		
David H Kaminkow	2929	Charles St	Fallston	MD	21047		
Joseph T and Sandra L Kaminkow	2931	Charles St	Fallston	MD	21047		
Christopher and Kathryn Potter	2932	Charles St	Fallston	MD	21047		
Ryan and Alissa Hurlock	2935	Charles St	Fallston	MD	21047		
Richard A and Heather L Rasmussen	2936	Charles St	Fallston	MD	21047		
Stephen R Bailey and Rose M Kucharczyk	3001	Charles St	Fallston	MD	21047		
Jonathan N and Lisa M Kielek	3003	Charles St	Fallston	MD	21047		
Robert E Reese	3006	Charles St	Fallston	MD	21047		
Kelsey M Yoor	3007	Charles St	Fallston	MD	21047		
Harold L and Suzanne C Hannon	3012	Charles St	Fallston	MD	21047		
Stephen L and Katherine E Smith	3024	Charles St	Fallston	MD	21047		
Colin S and Rebecca J Smith	3026	Charles St	Fallston	MD	21047		
Platinum Construction Group	3029	Charles St	Fallston	MD	21047	PO Box 555	Fallston MD 21047
Mary E Dean	3040	Charles St	Fallston	MD	21047	PO Box 498	Fallston MD 21047
Rosanne Jeppi	3041	Charles St	Fallston	MD	21047		
Thomas M and Melissa C Burke	3044	Charles St	Fallston	MD	21047		
Andrew J Canapp	2225	Engle Rd	Fallston	MD	21047		
Kenneth J Hall and Sarah B Bubb	2229	Engle Rd	Fallston	MD	21047		
Anthony C and Debora A Honig	2235	Engle Rd	Fallston	MD	21047		
Joshua W Zielinski and Christina G Hall	2237	Engle Rd	Fallston	MD	21047		
Patricia E and Lisbeth L Fouse	2241	Engle Rd	Fallston	MD	21047		
Tana L Hope-Bogush	2243	Engle Rd	Fallston	MD	21047		
Lewis H Walker	2249	Engle Rd	Fallston	MD	21047		
Jerry F and Brenda Rush	2309	Kings Arms Dr	Fallston	MD	21047		
Ridgefield Farm Homeowners Assoc Inc	2605	Laurel Brook Rd	Fallston	MD	21047		
Ridgefield Farm Homeowners Assoc Inc	2607	Laurel Brook Rd	Fallston	MD	21047		

Baltimore Gas & Electric	Map 24	Parcel 0	Jarrettsville	MD	21084	PO Box 1475	Baltimore MD 21203
Kenneth H and Gloria Wren	3300	Pritchett Lane	Fallston	MD	21047		
William M and Tamara A Caggese	3301	Pritchett Lane	Fallston	MD	21047		
Anthony L and Michele A Nasco	3302	Pritchett Lane	Fallston	MD	21047		
Martin K and Kristen T Wilson	3303	Pritchett Lane	Fallston	MD	21047		
David J and Janet L Smith	3305	Pritchett Lane	Fallston	MD	21047		
David L Rogers Jr and Sheila M Rogers	3307	Pritchett Lane	Fallston	MD	21047		
Mark C Wilson	3309	Pritchett Lane	Fallston	MD	21047		
Richard T Curry Jr and Regina R Curry	2009	Rutledge Rd	Fallston	MD	21047		
Harold D and Rebecca J Beavers	2205	Rutledge Rd	Fallston	MD	21047	PO Box 502	Fallston MD 21047
David M and Sandra L Bran	2207	Rutledge Rd	Fallston	MD	21047		
Columbia Gas Transmission Corp	2220	Rutledge Rd	Fallston	MD	21047	PO Box 117	Columbus OH 43216
Mark R and Joan G Parris	2226	Rutledge Rd	Fallston	MD	21047		
Kenneth A and Pamela C Hornbeck	2230	Rutledge Rd	Fallston	MD	21047		
Neale R and James R Bierer	2238	Rutledge Rd	Fallston	MD	21047		
Trimble LLC	2301	Rutledge Rd	Fallston	MD	21047	3322 Hazelwood Dr	Fallston MD 21047
Trimble LLC	2307	Rutledge Rd	Fallston	MD	21047		
Donald R Lange	1918	Treeline Dr	Forest Hill	MD	21050		
Robert J and Kristina M Kraus	2004	Trout Farm Rd	Jarrettsville	MD	21047		
Charles E and Christine V Kief	2005	Trout Farm Rd	Jarrettsville	MD	21084		
Richard L and Jennifer R Ferrara	2006	Trout Farm Rd	Jarrettsville	MD	21047		
Brian D and Robin E Kelly	2007	Trout Farm Rd	Jarrettsville	MD	21084		
Joseph S and Risa L Pickle	2008	Trout Farm Rd	Jarrettsville	MD	21047		
Joseph S and Rebecca Papa	2009	Trout Farm Rd	Jarrettsville	MD	21084		
Bradford S and Barrie R Davis	2010	Trout Farm Rd	Jarrettsville	MD	21047		
Dennis J and Susan K Shaffer	2011	Trout Farm Rd	Jarrettsville	MD	21084		
William R Winterstein	2012	Trout Farm Rd	Jarrettsville	MD	21084		
Kevin J Kantor and Jeanine Upchurch	2013	Trout Farm Rd	Jarrettsville	MD	21084		
John C and Sara E Birkmire	2015	Trout Farm Rd	Jarrettsville	MD	21084		
Christopher D and Amy L Benson	2015	Twin Lakes Dr	Jarrettsville	MD	21084		
Ronald P and Mary E Napoli	2017	Twin Lakes Dr	Jarrettsville	MD	21084		
Kathleen A Roubal	2019	Twin Lakes Dr	Jarrettsville	MD	21084		
David A and Rosemarie Robinson	2020	Twin Lakes Dr	Jarrettsville	MD	21084		
Michael and Valerie Meola	2021	Twin Lakes Dr	Jarrettsville	MD	21084		
Owen Landis Jr and Katherine S Landis	2022	Twin Lakes Dr	Jarrettsville	MD	21084		
James C and Amy C Emge	2023	Twin Lakes Dr	Jarrettsville	MD	21084		

# Tax ID: 04-012054



0 285 570 1,140 1,710 2,280  
Feet

1 inch = 1,000 feet

**Harford County Health Department**  
 120 S. Hays Street  
 Bel Air, MD 21014  
 Phone: 410-838-1500



Disclaimer: This site plan only represents approximate locations of property features (property lines, structures, well locations, etc.) and should not be used for exact property boundaries or feature locations.



**Maryland**

Department of  
the Environment

## **FACTS ABOUT:**

Colonial Pipeline – Bel Air Station

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**GROUNDWATER INVESTIGATION  
COLONIAL PIPELINE – BEL AIR STATION  
2942 CHARLES STREET, FALLSTON  
HARFORD COUNTY, MARYLAND  
OCP CASE NO. 2018-0459-HA (OPEN)**

### **SITE LOCATION**

The Colonial Pipeline – Bel Air Station (the site) has been a booster station for an interstate refined liquid petroleum pipeline since the mid-1960s. A pipeline booster station includes both aboveground and underground piping, controls, and related equipment. The underground steel pipelines are coated with a protective material and also have cathodic protection. The booster station pumps are used to move the liquid petroleum through the pipeline at a desired flow rate and pressure. The facility is not manned 24/7, but it is inspected on a regular schedule. The facility is served by a private supply well.

### **SITE HISTORY**

The Maryland Department of the Environment's (the Department) Oil Control Program (OCP) received notification from the Colonial Pipeline Company (Colonial) that a release of diesel and kerosene had been observed during a routine facility inspection on March 7, 2018. An environmental spill response company was hired and the recovery of liquid phase hydrocarbons (LPH) and petroleum-impacted soil and water began on March 7, 2018. Investigation of the cause of the release found two corrosion perforations on the 20-inch diameter alternate discharge ("kick back") line, approximately 16 inches from the top line of the pipe. The perforations were repaired and the line was returned to service on March 8, 2018.

### **ENVIRONMENTAL INVESTIGATION AND ACTIONS**

On March 12, 2018, an emergency subsurface investigation was initiated to characterize the extent of petroleum impacts at the site. The on-site private supply well was sampled on the same day and was non-detect for petroleum-related compounds. As part of the investigation, a total of 28 soil borings were advanced (17 hand-augured and 11 direct-push technology) at the site. Six groundwater monitoring wells were also installed around the perimeter of the site and sampled on April 4, 2018.



On March 16, 2018, an environmental contractor collected samples from 11 private supply wells located on ten properties adjacent to the site. Personnel from the OCP and the Harford County Health Department oversaw the collection of the drinking water samples. The results of the samples collected from the private supply wells did not reveal any petroleum-related impacts.

On April 13, 2018, the Department received notification that benzene was detected at a concentration of 11 parts per billion (ppb) in the sample from monitoring well MW-2. The sampling results for the other five monitoring wells were found to be non-detect or below regulatory levels for petroleum-related compounds. A confirmatory sample was collected from MW-2 on April 16, 2018. The results confirmed the presence of benzene at a concentration of 59 ppb. Because of the benzene detection, a half-mile notification was sent to property owners.

Colonial estimates that a total of 6,518 gallons of oil was released during this incident. As part of the initial emergency response, Colonial recovered 5,868 gallons of LPH and 5,276 gallons of petroleum-impacted water and excavated 89 cubic yards of oil-contaminated soil. Colonial excavated an additional 205 tons of oil-contaminated soil as part of a project to assess and repair protective coatings of underground piping structures potentially damaged by the oil release.

## **CURRENT STATUS**

Colonial has been directed to complete a half-mile well survey and to begin quarterly sampling of the network of six monitoring wells, the on-site supply well, and the 11 private supply wells. Additional assessment, remediation, and monitoring decisions may be evaluated as more data becomes available.

## **FUTURE UPDATES**

- Postings available on [www.mde.maryland.gov](http://www.mde.maryland.gov)
- File available at the Department's headquarters in Baltimore.

## **CONTACTS**

- Oil Control Program: 410-537-3442 or 1-800-633-6101, ext. 3442
- Harford County Health Department: 410-877-2300
- Colonial Pipeline Company Bel Air Station Call Center: 888-840-0213

## **DISCLAIMER**

The intent of this fact sheet is to provide the reader a summary of site events as they are contained within documents available to the Department. To fully understand the site and surrounding environmental conditions, the Department recommends that the reader review the case file, which can be requested through the Public Information Act. The inclusion of a person or company's name within this fact sheet is for informational purposes only and should not be considered a conclusion by the Department on liability, involvement in a wrongful act, or contribution to environmental damage.

# MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land and Materials Administration • Oil Control Program

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

410-537-3442 • 800-633-6101 x3442 • 410-537-3092 (fax) • [www.mde.maryland.gov](http://www.mde.maryland.gov)

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## LABORATORIES

The laboratories listed below are capable of analyzing samples for the purpose of testing for petroleum hydrocarbons. You are encouraged to fully discuss with the company you select the issues associated with sampling for fuel oxygenates, such as methyl tertiary-butyl ether (MTBE), tertiary-amyl methyl ether (TAME), diisopropyl ether (DIPE), and tertiary-butyl alcohol (TBA).

**Please note that EPA Method 524.2 is the recommended method for laboratory analysis of groundwater samples collected from drinking water supply wells since petroleum compounds of concern can be detected at very low levels using this specific method. EPA Method 524.2 encompasses a wide range of petroleum hydrocarbons such as benzene, toluene, ethylbenzene, and xylene (BTEX), in addition to fuel oxygenates such as MTBE. Please note that you should verify with each laboratory if they are certified in Maryland to collect drinking water samples.**

Companies with an asterisk (\*) have notified the Oil Control Program that they are prepared to either test for the suite of common fuel oxygenates following the U.S. EPA's validated analytical methods for common fuel oxygenates or they have taken the necessary alternative steps to determine the levels of fuel oxygenates in water and soil. Contact these companies to be fully informed of the sample preservation method they require prior to your sampling event. For more information, access EPA's Underground Storage Tank Fact Sheet – Analytical Methodologies for Fuel Oxygenates at [www.epa.gov/oust/mtbe/omethods.pdf](http://www.epa.gov/oust/mtbe/omethods.pdf).

The Maryland Department of the Environment assembled this list from the best available information at the time of preparation. The Department makes no claim as to the list's completeness or to the quality of work performed by these laboratories. Inclusion on this list is not to be considered an endorsement by the State of Maryland.

### **Aardvark Water Testing Laboratory, Inc.\***

260 Gateway Drive, Suite 3A  
Bel Air, Maryland 21014  
410-893-5257

### **Anabell Environmental, Inc.\***

8648 Dakota Drive  
Gaithersburg, Maryland 20877  
301-548-9425

### **Analytical Laboratory Services, Inc.\***

8965 Guilford Road, Suite 100  
Columbia, Maryland 21046  
410-290-8884

### **Caliber Analytical Services, LLC\***

8851 Orchard Tree Lane  
Towson, Maryland 21286  
410-825-1151

### **Chemtech**

284 Sheffield Street  
Mountainside New Jersey 07092  
908-728-3142

### **Chesapeake Environmental Lab, Inc.**

P.O. Box 946  
Stevensville Maryland 21666  
410-643-0800  
1-800-300-TEST

### **ECS Mid-Atlantic, LLC**

1340 Charwood Road, Suite P  
Hanover, Maryland 21076  
410-859-4300

### **Enviro-Chem Laboratories, Inc.**

47 Loveton Circle, Suite K  
Sparks, Maryland 21152  
410-472-1112

Date: September 17, 2015  
TTY Users: 800-735-2258

Page 1 of 2

**Environmental Management Services, Inc.**  
1688 East Gude Drive, Suite 301  
Rockville, Maryland 20850  
301-309-0475

**Envirosystems, Inc.**  
9200 Rumsey Road, Suite B102  
Columbia, Maryland 21045-1934  
410-964-0330

**Federated Environmental Assoc., Inc.**  
1314 Bedford Avenue  
Baltimore, Maryland 21208  
410-653-8434

**Fountain Valley Analytical Laboratory, Inc.**  
1413 Old Taneytown Road  
Westminster, Maryland 21158  
410-848-1014

**Fredericktowne Lab, Inc.\***  
3039-C Ventrice Court, P.O. Box 244  
Myersville, Maryland 21773  
301-293-3340

**GPL Laboratories, LLLP**  
7210 Corporate Court, Suite A  
Frederick, Maryland 21703  
301-694-5310

**Martel Laboratories JDS, Inc.\***  
1025 Cromwell Bridge Road  
Baltimore, Maryland 21204  
410-825-7790

**Maryland Spectral Services, Inc.\***  
1500 Caton Center Drive, Suite G  
Baltimore, Maryland 21227  
410-247-7600

**Microbac Laboratories, Inc.\***  
2101 Van Deman Street  
Baltimore, Maryland 21224-6697  
410-633-1800

**Penniman & Browne, Inc.**  
6252 Falls Road  
Baltimore, Maryland 21209  
410-825-4131

**Phase Separation Science, Inc.\***  
6630 Baltimore National Pike  
Baltimore, Maryland 21228  
410-747-8770

**Trace Laboratories, Inc.\***  
5 North Park Drive  
Hunt Valley, Maryland 21030  
410-584-9099



# Maryland

## Department of the Environment

Larry Hogan, Governor  
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary  
Horacio Tablada, Deputy Secretary

April 26, 2018

Dr. Russell W. Moy, MD, MPH  
Harford County Health Officer  
Harford County Health Department  
120 South Hays Street  
Bel Air MD 21014

**RE: NOTIFICATION OF PETROLEUM IMPACT IN HIGH RISK GROUNDWATER USE AREA**  
**Case No. 2018-0459-HA**  
**Colonial Pipeline Company – Bel Air Station**  
**2942 Charles Street, Fallston**  
**Harford County, Maryland**

Dear Dr. Moy:

This letter is provided in compliance with Section 4-411.2 of the Environment Article, Annotated Code of Maryland, and Code of Maryland Regulations (COMAR) 26.10.02.03.B(2)(b). On April 13, 2018, the Maryland Department of the Environment's (the Department) Oil Control Program received a report of a detection of benzene above notification limits in a groundwater monitoring well located on the subject property. Benzene was detected at 11 parts per billion (ppb) in monitoring well MW-2 during a sampling event conducted on April 4, 2018. The sampling results for the other five monitoring wells were found to be non-detect or below regulatory levels for petroleum-related compounds. The Department required the collection of a confirmation sample from MW-2 on April 13, 2018. The required sample was collected on April 16, 2016 and the results confirmed the presence of benzene at a concentration of 59 ppb. The on-site private supply well was sampled on March 12, 2018, and no petroleum-related compounds were detected.

On March 7, 2018, Colonial Pipeline Company (Colonial) reported that a release of oil occurred at the site, which was discovered during a routine facility inspection. Emergency recovery of liquid phase hydrocarbons (LPH) and petroleum impacted soil and water began the same day. Investigation of the cause of the release found two corrosion perforations on the 20-inch alternate discharge line, which were repaired on March 8, 2018. On March 12, 2018, a subsurface investigation was initiated to characterize the extent of petroleum impacts at the site. As part of that investigation, six groundwater monitoring wells were installed.

On March 16, 2018, an environmental contractor collected samples from private supply wells located on ten properties adjacent to the Colonial facility. Personnel from the Oil Control Program and the Harford County Health Department oversaw the collection of the private supply well samples. The results of the samples did not detect any petroleum-related compounds. These private supply wells will be placed on a quarterly monitoring schedule. At this time, the Department does not anticipate sampling any additional private supply wells beyond sampling needed to ensure community safety. Please be advised that this notification does not necessarily mean any off-site wells have been impacted by the contamination or that they will be impacted in the future.

Section 4-411.2 requires upon notification of contamination in a designated high-risk groundwater use area that the Department shall notify the local health department and each owner of property within one-half mile of the site from which the sample was taken. Notification to property owners must be made by certified

mail providing the recipient with information regarding the amount of contamination at the site. The Department appreciates the Harford County Health Department's assistance with the residential sampling, providing the property owner addresses, and providing a site map for the properties within a half-mile radius of the subject property. The Oil Control Program is will be mailing the required property owner notification letter on, or before, April 27, 2018. A copy of the notification letter to the property owners and other related site correspondences will be provided to the Harford County Health Department.

If you have any questions, please contact Ms. Susan Bull, Eastern Region Supervisor, at 410-537-3499 (email: susan.bull@maryland.gov) or Mr. Drew Miller, Remediation Division Chief, at 410-537-3389 (email: andrew.miller@maryland.gov).

Sincerely,



Christopher H. Ralston, Administrator  
Oil Control Program

SRB/nln

cc: Mr. Stanley Carpenter (Colonial Pipeline Company)  
Ms. Julie Mackert (Harford County Health Department)  
Mr. John Grace  
Mr. Andrew B. Miller  
Ms. Hilary Miller



# Maryland

## Department of the Environment

Larry Hogan, Governor  
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary  
Horacio Tablada, Deputy Secretary

May 15, 2018

Mr. Stanley Carpenter  
Colonial Pipeline Company  
1089 Kings Highway  
West Deptford NJ 08086

**RE: REQUEST FOR ADDITIONAL MONITORING AND HALF-MILE WELL SURVEY**  
**Case No. 2018-0459-HA**  
**Colonial Pipeline – Bel Air Station**  
**2942 Charles Street, Fallston**  
**Harford County, Maryland**

Dear Mr. Carpenter:

The Maryland Department of the Environment's (the Department) Oil Control Program (OCP) recently completed a review of the case file for the above-referenced property, located in a designated high-risk groundwater use area. On March 7, 2018, Colonial Pipeline Company (Colonial) reported that a release of diesel fuel occurred at the site. The release was discovered within the pumping loop observation portals during a scheduled site monitoring visit. An environmental spill response company was hired and the recovery of liquid phase hydrocarbons (LPH) and petroleum impacted soils and water began March 7, 2018. Investigation of the release revealed two corrosion perforations on the 20-inch diameter kick back line, approximately 16 inches from the top line of the pipe. The perforations were repaired and the line was returned to service on March 8th.

On March 12, 2018, an emergency subsurface investigation was initiated to characterize the extent of petroleum impacts at the site. A total of 28 soil borings were advanced (17 hand-augured and 11 direct-push soil borings) in and around the confines of the subsurface structures. Six permanent groundwater monitoring wells were installed around the perimeter of the site. On April 13, 2018, the Department received notification that petroleum-related compounds were detected in the groundwater sample collected from monitoring well MW-2. The analytical results reported a detection of benzene at a concentration of 11 parts per billion (ppb), which exceeds the benzene regulatory standard of 5 ppb. Sampling results from the other five monitoring wells were non-detect for petroleum constituents. A confirmatory sample was collected from MW-2 on April 16, 2018, and the results confirmed the presence of benzene at a concentration of 59 ppb. The on-site drinking water supply well was sampled on March 12, 2018. The supply well analytical results did not detect any petroleum related impacts above laboratory detection limits.

On March 16, 2018, an environmental contractor collected samples from 11 drinking water supply wells located on ten properties immediately adjacent to the Colonial pumping station. Personnel from the OCP and the Harford County Health Department oversaw the collection of these drinking water samples. The analytical results of the samples collected from these drinking water supply wells did not reveal any petroleum related impacts above laboratory detection limits.

The Department understands that the pipeline is protected from corrosion by an outer coating. Time and exposure to fuel can degrade that coating. During the initial emergency response, the main pipelines passing through the Bel Air Pumping Station and the pipes within the kick back line were exposed to recover LPH and petroleum impacted soils. While the pipeline was exposed, the Department understands that compromises were detected in the coating where LPH was recovered. Upon completing the initial recovery efforts, the Department understands that you have begun repairing any coating compromises and inspecting the rest of the buried structures at the site. During this process, additional soils have been excavated and will be sent to a State of Maryland approved soil disposal facility.

Since this property is located in a high-risk groundwater use area served by a drinking water supply well, the Department requires completion of the following:

- 1) **No later than May 28, 2018**, submit a well survey identifying all drinking water supply wells (i.e. domestic, non-community/community water supply, agricultural) within a half-mile radius of the subject property and plot on a U.S. Geological Survey map or scaled street map.
  - a. Annotate on this map the 500-ft., 1,000-ft., and 0.5-mile radii.
  - b. Provide a summary table including, at a minimum, property address, property owner name, property owner address, depth of well, casing depth, screen depth, and current status of well usage.
  - c. Review well completion reports and evaluate whether on-site conditions could potentially impact any off-site drinking water supply wells in the area.
  - d. Submit documentation of which supply wells are historic and have been abandoned.
  - e. Submit copies of field notes documenting field reconnaissance performed to verify the presence or absence of wells.
  - f. Provide written documentation of your findings and the list of persons contacted.
- 2) **No later than May 28, 2018**, submit the *Subsurface Investigation Report*. The *Subsurface Investigation Report* should include, at a minimum: a detailed accounting of the release and the steps of the post-release investigation and recovery process; data summary tables (including fuel oxygenates and naphthalene) and scaled site maps showing actual sampling locations (i.e., soil boring/monitoring well locations); any dissolved and liquid phase hydrocarbon thicknesses encountered should also be depicted on maps encountered. Qualitative and/or quantitative discussions should be presented, including recommendations for further actions (additional characterization or remedial options)
- 3) Begin monthly gauging and quarterly (every three months) sampling of the monitoring well network until written approval from the Department is received to suspend or reduce the sampling frequency. Sampling events must be conducted in July, October, January, and April. All samples collected must be analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene, using EPA Method 8260 and total petroleum hydrocarbons - diesel and gasoline range organics (TPH-DRO and GRO) using EPA Method 8015.
- 4) Conduct quarterly sampling of the on-site drinking water supply well. Sampling events must be conducted in July, October, January, and April. All samples collected must be analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, using EPA Method 524.2. If a granular activated carbon (GAC) filtration system is present, samples must be collected pre-, mid-, and post-filtration.
- 5) Conduct quarterly sampling of the drinking water supply wells of the ten immediately adjacent properties until written approval to reduce or suspend sampling is received from the Department. These properties include: 2929, 2931, 2932, 2933, 2935, 2936, and 3006 Charles Street and 2220, 2226 (2 wells), and 2230

Rutledge Road. Sampling events must be conducted in July, October, January, and April. All samples must be collected as close to the pressure tank as possible. All samples collected must be analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, using EPA Method 524.2. If a GAC filtration system is present, samples must be collected pre-, mid-, and post-filtration. Copies of all sampling results must be provided to the property owner, the Harford County Health Department (Attn. Ms. Lisa Kalama) and the Oil Control Program's case manager.

- 6) Within 45 days of each sampling event, submit a quarterly report to the Oil Control Program detailing the results of the event.
- 7) When submitting reports, include data summary tables and scaled site maps showing actual sampling locations (i.e., monitoring well and tank field well locations). In the discussion of supplemental sampling events, include details on sampling procedures and describe analytical results in terms of media sampled. Reports must include groundwater flow maps, dissolved concentration maps, and qualitative and quantitative discussions regarding the sampling results and trends.

When submitting documentation to the Oil Control Program, provide three hard copies and a digital copy on a labeled compact disk (CD). If you have any questions, please contact the case manager, Mrs. Susan Bull, Eastern Region Supervisor, at 410-537-3499 (email: [susan.bull@maryland.gov](mailto:susan.bull@maryland.gov)), or me at 410-537-3389 (email: [andrew.miller@maryland.gov](mailto:andrew.miller@maryland.gov)).

Sincerely,



Andrew B. Miller, Chief  
Remediation and State Lead Division  
Oil Control Program

SRB/nln

cc: Mrs. Julie Makert (Harford County Health Dept.)  
Mr. David Kaminkow (Owner 2929 Charles Street)  
Mr. and Mrs. Joseph Kaminkow (Owners 2931 and 2933 Charles Street)  
Mr. and Mrs. Potter (Owners 2932 Charles Street)  
Mr. and Mrs. Hurlock (Owners 2935 Charles Street)  
Mr. and Mrs. Rasmussen (Owners 2936 Charles Street)  
Mr. and Mrs. Reese (Owners 3006 Charles Street)  
Mr. Eric Svendsen, Environmental Scientist (TransCanada 2220 Rutledge Road)  
Mr. and Mrs. Parris (Owners 2226 Rutledge Road)  
Mr. and Mrs. Hornbeck (Owners 2230 Rutledge Road)  
Mr. Christopher H. Ralston  
Ms. Hilary Miller

**APPENDIX C**  
Colonial Spill Report



# Colonial Pipeline Company

Frank Gallo  
Operations Manager

Office: 410-970-2150  
Fax: 410-549-6410  
e-mail: [fgallo@colpipe.com](mailto:fgallo@colpipe.com)

March 21, 2018

## Certified Mail

Thomas Yoo, Senior Regulatory & Compliance Engineer  
Maryland Department of the Environment  
Waste Management Administration  
Oil Control Program  
1800 Washington Blvd., Suite 620  
Baltimore, MD 21230-1720

Re: Bel Air Station, Harford County, Maryland  
Alternate Discharge Line Release, No. 0307181115

Mr. Yoo:

The following report is provided by Colonial Pipeline Company (Colonial) in accordance with Code of Maryland Regulation §26.10.01.03(E) for the referenced spill event.

(1) *Date, time and place of spill* – Product was initially observed in valve observation access wells on March 7, 2018 at approximately 1030 within the Colonial Bel Air Station located at 2942 Charles Street, Fallston, Maryland, 21047.

(2) *Amount and type of oil spilled* – An estimated 6,111 gallons of distillate (Diesel Fuel and Kerosene) were released, as has been reported to the National Response Center.

(3) *A complete description of circumstances contributing to the spill* – During a routine facility inspection on March 7, 2018, an operator noticed a petroleum odor and observed liquid phase hydrocarbon (LPH) in valve observation access wells. During subsequent subsurface excavation and investigation, a leak was discovered on the 20-inch alternate discharge (“kicker”) line on the pumping station loop at approximately 0330 on March 8, 2018.

(4) *A complete description of containment, removal, and clean-up operations including disposal sites and costs of the operations* – System containment actions included isolating the pump station loop from the mainline system. The mainline was shut down and upstream and downstream block valves were closed thereafter. As noted above, the leak point was identified and contained during subsequent subsurface excavation and investigation. Continuous air monitoring was conducted in an effort to ensure vapor emissions from site work were below health-based limits. Facility containment actions included absorbent boom installation across the secondary containment pond, closing the pond discharge line valve, and placement of plumber’s plugs and/or caps on discharge lines below the pond outfall. For removal actions, an oil spill response organization (OSRO) and a pipeline maintenance and repair contractor, respectively, were mobilized to the site. Crews initially worked in shifts to cover 24-hour operating periods. Vacuum truck and vacuum tankers were used to evacuate LPH from the

pond, the facility oil-water separator, valve observation access wells, the facility storm water yard drain lines, and isolated areas of LPH puddling in the excavation areas. Petroleum impacted soil and the yard storm drain bedding material was excavated and staged on plastic and covered by plastic pending off-site disposal at Soil Safe of Logan Township, New Jersey. In addition, subsurface investigation was completed to confirm that the area of impact from the release was isolated to the pumping station loop and in an effort to ensure potential off-site migration pathways were evaluated. To date, the estimated costs of system repairs and emergency response operations is approximately \$446,000. This estimated costs does not include the ongoing environmental investigation.

(5) *Procedures, methods, and precautions instituted to prevent recurrence of an oil spill from the facility* – Colonial will continue the system integrity and preventative maintenance program, which includes internal line tool (ILI) inspections and cathodic protection of the pipelines in accordance with the Pipeline and Hazardous Material Safety Administration (PHMSA) requirements. In addition, routine facility inspections by operating personnel, aerial patrols of the pipeline right of way, and remote monitoring with a Supervisory Control and Data Acquisition System (SCADA) will continue.

(6) *Any other information considered necessary or required by the Administration for a complete description of the spill incident* – None

In addition to the COMAR-required data, you requested the following information in an email dated March 8, 2018.

*Time of Discharge* – See Item (1).

*Name and Telephone Number of Person Making Report* – Frank Gallo, Baltimore Area Operations Manager, 410-970-2150.

*Type(s) of oil in the pipeline from February 26 through March 7, 2018* – Gasoline, Diesel Fuel, and Kerosene.

*Descriptive written summary of clean-up activity, to also include:*

- *amount of liquid product collected* – approximately 5,868 gallons of LPH have been recovered, and approximately 5,276 gallons of water have been recovered.
- *amount of oil-contaminated soils recovered* – approximately 89 yards of oil-contaminated soil have been excavated.
- *actions taken by Colonial Pipeline to ascertain extent and sub-surface delineation of the oil release* – 17 hand auger borings were completed to a depth of 10 feet or less, a Geoprobe rig was used to install 11 borings with soil logging to depths ranging from approximately 7 to 24 feet, 11 soil samples were collected from the Geoprobe borings, 65 post-excavation soil samples were collected from the yard drain excavations, valve observation well excavations, and drainage swale from the oil-water separator to the secondary containment pond, 2 sediment samples were collected from the pond, 6 monitoring wells were installed in the upper water-bearing zone and are awaiting sampling pending equilibration time, an on-site supply well was sampled to evaluate bedrock groundwater quality, 3 surface water samples were collected, and 10 off-site residential wells were sampled. The investigation data will be detailed in a Site Investigation Report.

*Test results with date of last 'pigging' inspection conducted on the 30" main pipeline* – On July 17, 2017, an ILI crack tool was run on Line 03 through the Bel Air Station. On October 6, 2017, an ILI combination (MDS) tool was run through the section of Line 03 traversing the Bel Air Station.

*Test results with date of last 'pigging' inspection conducted on the 20" auxiliary pipeline – the alternate discharge line segment of the station piping is not structured for use with an ILI tool and is instead subject to a facility assessment program.*

*February 26, 2018 inspection log of the valve sumps – see attached.*

*March 7, 2018 inspection log of the valve sumps – see attached. Based on feedback from the Operator completing the inspection form on March 10 and 13, 2018, LPH was not observed on pond on these dates (see attached clarifying email).*

*(7) Certification:*

I certify that the information provided in this report is true and correct to the best of my knowledge.

Sincerely,

*Frank Gallo*

Frank Gallo  
Baltimore Area Operations Manager

Attachment

cc: S. Carpenter – Colonial Pipeline Company  
R. Shenk – Colonial Pipeline Company

# Bel Air Station Facility Checklist

2018

PG.1

2010 1000

Date:	01/01	01/08	1-16	1-22	2-01	2-8	2-13	2-22	2-26	3-7	3-10	3-13
Inspector Initials:	KB	KB	DF	KB	KB	DF	DF	DF	DF	DF	JDS	JDS

NTR= Nothing To Report F=Full DN=Down WKG=Working CHG=Changed

<b>CONTROL BUILDING INTEGRITY ITEM 1</b>												
Equipment, control panel, alarms, etc:	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR
<b>FACILITY GROUNDS INTEGRITY ITEM 2</b>												
Equipment, Valves, Safety, Security, Etc:	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	*	*	*
<b>UNIT INTEGRITY ITEM 3</b>												
Oil Levels & Probes; All Units	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR
Nitrogen Pressure Units 1 & 2	800	750	750	800	725	700	725	750	700	550	450	450
Nitrogen Pressure Unit 3	1600	1500	1500	1625	1525	1500	1500	1550	1550	1500	1520	1600
Unit 1 Vibration	0.0	DN	DN	DN	0.0	0.0	0.0	DN	0.0	DN	DN	0.0
Unit 2 Vibration	DN	.4	.2	.4	DN	DN	0.4	0.6	0.6	0.6	0.0	DN
Unit 3 Vibration	0.7	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN
<b>CENTROL HYDRAULIC SYSTEM ITEM 4</b>												
Fluid level	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR
Pressure (Low 850)	820	850	860	940	880	860	890	900	926	890	920	930
Run 5 HP Auxiliary Pump	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR
<b>M/L CONTROL VALVE ITEM 5</b>												
General Integrity	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR
<b>M/L RELIEF VALVE ITEM 6</b>												
Pressure (maintain 330)	328	326	328	329	327	327	328	329	330	328	328	328
<b>OIL WATER SEPARATOR ITEM 7</b>												
Check Level, Flow & Proper Skimming	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	NTR	*	NTR	*
<b>RELIEF TANK 5212 ITEM 8</b> Check dike for presence of product and remove if detected. Drain storm water as appropriate.												
Tank 5212 level	01.74	01.75	01.93	01.40	01.40	1.40	1.41	1.40	1.39	1.87	2.70	2.68
<b>SUMP TANK ITEM 9</b> Monitor sump for excessive drainage. (Sump high level 3' 6")												
Level	0.58	0.92	1.41	0.12	01.00	1.12	1.48	1.68	1.94	2.15	1.09	1.27





**From:** Scott, Joseph D.  
**To:** [Gallo, Frank](#)  
**Subject:** BelAir Facility Checklist  
**Date:** Wednesday, March 21, 2018 1:04:41 PM

---

Frank the purpose of this email is to clarify my March 10<sup>th</sup> and 13<sup>th</sup> entries on the BelAir Facility checklist. My entries were designed to relay the facts that I saw boom those days. I did not however see any actual product on the pond, nor were active product recovery underway.

**J. DOUGLAS SCOTT**  
**COLONIAL PIPELINE CO.**  
**(SR.) SENIOR OPERATOR**  
**BALTIMORE AREA**

**APPENDIX D**  
Laboratory Analytical Reports



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 14:05  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-1 (2-2.5)	Matrix:	Soil	Lab ID:	18031302-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Acetone	ND	ug/kg	51	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Methyl acetate	ND	ug/kg	26	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Methylene chloride	ND	ug/kg	26	EPA 8260B	03/14/18	03/14/18 12:18	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
2-Butanone (MEK)	ND	ug/kg	51	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Benzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Toluene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
Ethylbenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH
m&p-Xylene	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 12:18	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 14:05  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-1 (2-2.5)			Matrix:	Soil	Lab ID: 18031302-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
Styrene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
Bromoform	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
Naphthalene	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
tert-Butanol (TBA)	ND	ug/kg	26	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	26	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
tert-Amyl ethyl ether (TAE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:18	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/kg	12	EPA 8015C	03/13/18	03/14/18 12:23	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/kg	0.24	EPA 8015C	03/14/18	03/14/18 11:21	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: 03/13/18 14:10  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-2 (2-2.5)	Matrix:	Soil	Lab ID:	18031302-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	90	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Acetone	ND	ug/kg	46	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Carbon disulfide	ND	ug/kg	9	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Methyl acetate	ND	ug/kg	23	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Methylene chloride	ND	ug/kg	23	EPA 8260B	03/14/18	03/14/18 12:48	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
2-Butanone (MEK)	ND	ug/kg	46	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Benzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	9	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Toluene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
2-Hexanone (MBK)	ND	ug/kg	9	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
Ethylbenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH
m&p-Xylene	ND	ug/kg	9	EPA 8260B	03/14/18	03/14/18 12:48	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 14:10  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-2 (2-2.5)			Matrix:	Soil	Lab ID: 18031302-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
Styrene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
Bromoform	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
Naphthalene	ND	ug/kg	9	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
tert-Butanol (TBA)	ND	ug/kg	23	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	23	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 12:48	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/kg	11	EPA 8015C	03/13/18	03/14/18 12:23	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/kg	0.2	EPA 8015C	03/14/18	03/14/18 11:45	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: 03/13/18 14:10  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-3 (2-2.5)		Matrix:	Soil	Lab ID: 18031302-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	74	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Acetone	ND	ug/kg	65	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Methyl acetate	ND	ug/kg	33	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Methylene chloride	ND	ug/kg	33	EPA 8260B	03/14/18	03/14/18 13:18	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
2-Butanone (MEK)	ND	ug/kg	65	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Benzene	21	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Toluene	34	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
Ethylbenzene	7	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	03/14/18	03/14/18 13:18	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 14:10  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-3 (2-2.5)			Matrix:	Soil	Lab ID: 18031302-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
Styrene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
Bromoform	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
Naphthalene	ND	ug/kg	12	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
tert-Butanol (TBA)	ND	ug/kg	33	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	33	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/14/18	03/14/18 13:18	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/kg	13	EPA 8015C	03/13/18	03/14/18 12:58	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	<b>0.44</b>	mg/kg	0.31	EPA 8015C	03/14/18	03/14/18 12:09	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: 03/13/18 14:25  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-4 (2-2.5)	Matrix:	Soil	Lab ID:	18031302-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	76	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Acetone	ND	ug/kg	57	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Methyl acetate	ND	ug/kg	28	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Methylene chloride	ND	ug/kg	28	EPA 8260B	03/14/18	03/14/18 13:49	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
2-Butanone (MEK)	ND	ug/kg	57	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 13:49	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	03/14/18	03/14/18 13:49	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 14:31  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-5 (2-2.5)		Matrix:	Soil	Lab ID: 18031302-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	71	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Chloromethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Vinyl chloride	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Bromomethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Chloroethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Trichlorofluoromethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,1-Dichloroethene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Acetone	ND	ug/kg	43000	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Carbon disulfide	ND	ug/kg	8700	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Methyl acetate	ND	ug/kg	22000	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Methylene chloride	ND	ug/kg	22000	EPA 8260B	03/14/18	03/14/18 14:19	GFH
trans-1,2-Dichloroethene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,1-Dichloroethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
cis-1,2-Dichloroethene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
2-Butanone (MEK)	ND	ug/kg	43000	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Chloroform	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,1,1-Trichloroethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Cyclohexane	9,600	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Carbon tetrachloride	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Benzene	13,000	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,2-Dichloroethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Trichloroethene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Methylcyclohexane	61,000	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,2-Dichloropropane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Bromodichloromethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
cis-1,3-Dichloropropene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	8700	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Toluene	76,000	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
trans-1,3-Dichloropropene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,1,2-Trichloroethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Tetrachloroethene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
2-Hexanone (MBK)	ND	ug/kg	8700	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Dibromochloromethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,2-Dibromoethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Chlorobenzene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Ethylbenzene	36,000	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
m&p-Xylene	170,000	ug/kg	8700	EPA 8260B	03/14/18	03/14/18 14:19	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 14:31  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-5 (2-2.5)		Matrix:	Soil	Lab ID: 18031302-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	67,000	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Styrene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Bromoform	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Isopropylbenzene	14,000	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,3-Dichlorobenzene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,4-Dichlorobenzene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,2-Dichlorobenzene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Naphthalene	25,000	ug/kg	8700	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
tert-Butanol (TBA)	ND	ug/kg	22000	EPA 8260B	03/14/18	03/14/18 14:19	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	22000	EPA 8260B	03/14/18	03/14/18 14:19	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	4300	EPA 8260B	03/14/18	03/14/18 14:19	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	8,600	mg/kg	26	EPA 8015C	03/13/18	03/14/18 13:33	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	14,000	mg/kg	130	EPA 8015C	03/14/18	03/14/18 12:56	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: 03/13/18 14:40  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-6 (2-2.5)		Matrix:	Soil	Lab ID: 18031302-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	<b>74</b>	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Chloromethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Vinyl chloride	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Bromomethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Chloroethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Trichlorofluoromethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
1,1-Dichloroethene	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Acetone	ND	ug/kg	36000	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Carbon disulfide	ND	ug/kg	7200	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Methyl acetate	ND	ug/kg	18000	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Methylene chloride	ND	ug/kg	18000	EPA 8260B	03/14/18	03/14/18 14:49	GFH
trans-1,2-Dichloroethene	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
1,1-Dichloroethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
cis-1,2-Dichloroethene	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
2-Butanone (MEK)	ND	ug/kg	36000	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Chloroform	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
1,1,1-Trichloroethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Cyclohexane	<b>6,100</b>	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Carbon tetrachloride	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Benzene	<b>8,700</b>	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
1,2-Dichloroethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Trichloroethene	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Methylcyclohexane	<b>40,000</b>	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
1,2-Dichloropropane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Bromodichloromethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
cis-1,3-Dichloropropene	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	7200	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Toluene	<b>62,000</b>	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
trans-1,3-Dichloropropene	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
1,1,2-Trichloroethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Tetrachloroethene	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
2-Hexanone (MBK)	ND	ug/kg	7200	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Dibromochloromethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
1,2-Dibromoethane	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Chlorobenzene	ND	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
Ethylbenzene	<b>26,000</b>	ug/kg	3600	EPA 8260B	03/14/18	03/14/18 14:49	GFH
m&p-Xylene	<b>120,000</b>	ug/kg	7200	EPA 8260B	03/14/18	03/14/18 14:49	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 14:50  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-7 (2-2.5)		Matrix:	Soil	Lab ID: 18031302-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	78	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Chloromethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Vinyl chloride	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Bromomethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Chloroethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Trichlorofluoromethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
1,1-Dichloroethene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Acetone	ND	ug/kg	5400	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Carbon disulfide	ND	ug/kg	1100	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Methyl acetate	ND	ug/kg	2700	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Methylene chloride	ND	ug/kg	2700	EPA 8260B	03/14/18	03/14/18 15:20	GFH
trans-1,2-Dichloroethene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
1,1-Dichloroethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
cis-1,2-Dichloroethene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
2-Butanone (MEK)	ND	ug/kg	5400	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Chloroform	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
1,1,1-Trichloroethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Cyclohexane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Carbon tetrachloride	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Benzene	750	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
1,2-Dichloroethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Trichloroethene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Methylcyclohexane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
1,2-Dichloropropane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Bromodichloromethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
cis-1,3-Dichloropropene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1100	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Toluene	2,100	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
trans-1,3-Dichloropropene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
1,1,2-Trichloroethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Tetrachloroethene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
2-Hexanone (MBK)	ND	ug/kg	1100	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Dibromochloromethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
1,2-Dibromoethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Chlorobenzene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
Ethylbenzene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH
m&p-Xylene	1,800	ug/kg	1100	EPA 8260B	03/14/18	03/14/18 15:20	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 14:50  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-7 (2-2.5)			Matrix:	Soil	Lab ID: 18031302-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	740	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
Styrene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
Bromoform	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
Isopropylbenzene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
1,3-Dichlorobenzene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
1,4-Dichlorobenzene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
1,2-Dichlorobenzene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
Naphthalene	ND	ug/kg	1100	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
tert-Butanol (TBA)	ND	ug/kg	2700	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	2700	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	540	EPA 8260B	03/14/18	03/14/18 15:20	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	410	mg/kg	13	EPA 8015C	03/13/18	03/14/18 14:08	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	620	mg/kg	23	EPA 8015C	03/14/18	03/14/18 14:11	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: 03/13/18 15:00  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-8 (2-2.5)		Matrix:	Soil	Lab ID: 18031302-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	80	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Chloromethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Vinyl chloride	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Bromomethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Chloroethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Trichlorofluoromethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
1,1-Dichloroethene	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Acetone	ND	ug/kg	6200	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Carbon disulfide	ND	ug/kg	1200	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Methyl acetate	ND	ug/kg	3100	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Methylene chloride	ND	ug/kg	3100	EPA 8260B	03/15/18	03/15/18 10:33	GFH
trans-1,2-Dichloroethene	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
1,1-Dichloroethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
cis-1,2-Dichloroethene	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
2-Butanone (MEK)	ND	ug/kg	6200	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Chloroform	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
1,1,1-Trichloroethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Cyclohexane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Carbon tetrachloride	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Benzene	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
1,2-Dichloroethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Trichloroethene	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Methylcyclohexane	1,600	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
1,2-Dichloropropane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Bromodichloromethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
cis-1,3-Dichloropropene	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1200	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Toluene	4,200	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
trans-1,3-Dichloropropene	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
1,1,2-Trichloroethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Tetrachloroethene	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
2-Hexanone (MBK)	ND	ug/kg	1200	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Dibromochloromethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
1,2-Dibromoethane	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Chlorobenzene	ND	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
Ethylbenzene	2,500	ug/kg	620	EPA 8260B	03/15/18	03/15/18 10:33	GFH
m&p-Xylene	9,600	ug/kg	1200	EPA 8260B	03/15/18	03/15/18 10:33	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 15:14  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-9 (2-2.5)		Matrix:	Soil	Lab ID: 18031302-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	73	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Acetone	ND	ug/kg	58	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Methyl acetate	ND	ug/kg	29	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Methylene chloride	ND	ug/kg	29	EPA 8260B	03/14/18	03/14/18 16:20	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
2-Butanone (MEK)	ND	ug/kg	58	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Benzene	51	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Methylcyclohexane	24	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Toluene	280	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
Ethylbenzene	99	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH
m&p-Xylene	370	ug/kg	12	EPA 8260B	03/14/18	03/14/18 16:20	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 15:14  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-9 (2-2.5)			Matrix:	Soil	Lab ID: 18031302-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	190	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
Styrene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
Bromoform	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
Isopropylbenzene	22	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
Naphthalene	64	ug/kg	12	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
tert-Butanol (TBA)	ND	ug/kg	29	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
Diisopropyl ether (DIPE)	24	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	29	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/14/18	03/14/18 16:20	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/kg	14	EPA 8015C	03/13/18	03/14/18 14:43	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	0.50	mg/kg	0.24	EPA 8015C	03/14/18	03/14/18 15:23	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: 03/13/18 15:20  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-10 (2-2.5)		Matrix:	Soil	Lab ID: 18031302-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Acetone	ND	ug/kg	48	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Methyl acetate	ND	ug/kg	24	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Methylene chloride	ND	ug/kg	24	EPA 8260B	03/14/18	03/14/18 16:50	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
2-Butanone (MEK)	ND	ug/kg	48	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Benzene	19	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Methylcyclohexane	10	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Toluene	70	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
Ethylbenzene	20	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH
m&p-Xylene	89	ug/kg	10	EPA 8260B	03/14/18	03/14/18 16:50	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 15:20  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-10 (2-2.5)			Matrix:	Soil	Lab ID: 18031302-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	44	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
Styrene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
Bromoform	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
Isopropylbenzene	5	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
Naphthalene	29	ug/kg	10	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
tert-Butanol (TBA)	ND	ug/kg	24	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
Diisopropyl ether (DIPE)	8	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	24	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 16:50	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	27	mg/kg	12	EPA 8015C	03/13/18	03/14/18 14:43	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/kg	0.23	EPA 8015C	03/14/18	03/14/18 15:47	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



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/03/18 15:30  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-11 (2-2.5)		Matrix:	Soil	Lab ID: 18031302-11		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	81	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Acetone	ND	ug/kg	51	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Methyl acetate	ND	ug/kg	26	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Methylene chloride	ND	ug/kg	26	EPA 8260B	03/14/18	03/14/18 17:21	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
2-Butanone (MEK)	ND	ug/kg	51	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Benzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Toluene	9	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
Ethylbenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH
m&p-Xylene	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 17:21	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/03/18 15:30  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	PX-YD-11 (2-2.5)			Matrix:	Soil	Lab ID: 18031302-11		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
Styrene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
Bromoform	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
Naphthalene	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
tert-Butanol (TBA)	ND	ug/kg	26	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	26	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
tert-Amyl ethyl ether (TAE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:21	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	15	mg/kg	12	EPA 8015C	03/13/18	03/14/18 15:18	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	0.46	mg/kg	0.25	EPA 8015C	03/14/18	03/14/18 16:11	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: 03/13/18  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	DUP 1	Matrix:	Soil	Lab ID:	18031302-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	81	%		SM2540G	03/14/18	03/14/18 15:27	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Acetone	ND	ug/kg	51	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Methyl acetate	ND	ug/kg	25	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Methylene chloride	ND	ug/kg	25	EPA 8260B	03/14/18	03/14/18 17:51	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
2-Butanone (MEK)	ND	ug/kg	51	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Benzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Toluene	9	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Ethylbenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
m&p-Xylene	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 17:51	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	DUP 1	Matrix:	Soil	Lab ID:	18031302-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Styrene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Bromoform	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Naphthalene	ND	ug/kg	10	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
tert-Butanol (TBA)	ND	ug/kg	25	EPA 8260B	03/14/18	03/14/18 17:51	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	25	EPA 8260B	03/14/18	03/14/18 17:51	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	5	EPA 8260B	03/14/18	03/14/18 17:51	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	110	mg/kg	12	EPA 8015C	03/13/18	03/14/18 15:18	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	19	mg/kg	0.24	EPA 8015C	03/14/18	03/14/18 16:34	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: 03/13/18 16:05  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID: FB 031318 Matrix: Water Lab ID: 18031302-13

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Acetone	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 13:57	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Chloroform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Benzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 13:57	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Toluene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 13:57	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 13:57	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH
Styrene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18 16:05  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	FB 031318			Matrix:	Water	Lab ID: 18031302-13		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
Bromoform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
Naphthalene	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
tert-Amyl ethyl ether (TAAE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 13:57	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/L	0.2	EPA 8015C	03/14/18	03/15/18 10:50	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	03/14/18	03/14/18 16:58	GFH	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	TB 031318			Matrix:	Water		Lab ID:	18031302-14	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.		
<b>Target Compound List - VOLATILES</b>									
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Chloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Bromomethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Chloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Acetone	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Methyl acetate	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Methylene chloride	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Chloroform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Cyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Benzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Trichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Toluene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
o-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		
Styrene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH		



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/13/18  
Date Received: 03/13/18 17:08  
Date Issued: 03/16/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031302

Field Sample ID:	TB 031318		Matrix:	Water		Lab ID:	18031302-14	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
Bromoform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
Naphthalene	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 14:27	GFH	
tert-Amyl ethyl ether (TAE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 14:27	GFH	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



Chain of Custody Record

Customer:	Colonial Pipeline
Contact/Report to:	TLB Shen
Phone:	410-970-2126
Fax:	

E-mail address:	r.shen@caliberanalytical.com
Project Name:	Bel Air Bunt
Project Number:	
Location:	Bel Air Station

SDG Number:	18031302
Sampled by:	DK
PO Number:	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Preservative	Sampling Remarks/Comments	
						8860 VOC	DRO	CR6										
	PX-YD-1 (2-2.5)	3/13/18	1405	3	Soil	X	X	X										
	PX-YD-2 (2-2.5)	3/13/18	1410	3	Soil	X	X	X										
	PX-YD-3 (2-2.5)	3/13/18	1410	3	Soil	X	X	X										
	PX-YD-4 (2-2.5)	3/13/18	1425	3	Soil	X	X	X										
	PX-YD-5 (2-2.5)	3/13/18	1431	3	Soil	X	X	X										
	PX-YD-6 (2-2.5)	3/13/18	1440	3	Soil	X	X	X										
	PX-YD-7 (2-2.5)	3/13/18	1450	3	Soil	X	X	X										
	PX-YD-8 (2-2.5)	3/13/18	1500	3	Soil	X	X	X										
	PX-YD-9 (2-2.5)	3/13/18	1514	3	Soil	X	X	X										
	PX-YD-10 (2-2.5)	3/13/18	1520	3	Soil	X	X	X										

Relinquished by:	<i>[Signature]</i>	Date/Time:	3/13/18 1605	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	3/13/18 1605	I II III CLP EDD	Temp: <u>Soil</u> On Ice	STD Next Day 2-Day Other
Relinquished by:	<i>[Signature]</i>	Date/Time:	3/13/18 1653	Custody Seals:	Comments/Special Instructions:	
Received by:	<i>[Signature]</i>	Date/Time:	3/13/18 1653	Sample Cooler		
Relinquished by:		Date/Time:		Delivered by client		
Received by:		Date/Time:				



Chain of Custody Record

Customer:	Colonial Pipeline
Contact/Report to:	Rob Shan
Phone:	410-970-2126
Fax:	

E-mail address:	rshearc@colonialpipeline.com
Project Name:	<del>CB</del> Bel Air Event
Project Number:	
Location:	BEL AIR STG

SDG Number:	18031302
Sampled by:	DK
PO Number:	

Analysis Requested

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Preservative										Sampling Remarks/ Comments		
						2260 VOC	DRO	GR0										
	PX-YD-11(2-2.5)	3/13/18	1530	3	Soil	X	X	X										
	PX-YD-11(2-2.5)M/MSD	3/13/18	1530	6	Soil	X	X	X										
	DUP-1	3/13/18	-	3	Soil	X	X	X										
	FB 031318	3/13/18	1605		AQ	X	X	X										
	TB 031318	3/13/18	-	2	AQ	X												

Relinquished by:	<i>[Signature]</i>	Date/Time:	3/13/18 1605	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	3/13/18 1605	I II III CLP EDD	Temp: <u>same</u> On Ice	STD Next Day 2-Day Other
Relinquished by:	<i>[Signature]</i>	Date/Time:	3/13/18 1653	Custody Seals:	Comments/Special Instructions:	
Received by:	<i>[Signature]</i>	Date/Time:	3/13/18 1653	Sample Cooler		
Relinquished by:		Date/Time:		Delivered by client		
Received by:		Date/Time:				



# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20094  
 MATRIX: SOIL INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/14/2018 11:18:00 AM  
 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	22.4	89	54 - 127
BENZENE	25	NA	20.0	80	69 - 126
CARBON TETRACHLORIDE	25	NA	20.4	82	56 - 135
CHLOROBENZENE	25	NA	17.9	72	67 - 107
CHLOROFORM	25	NA	19.4	77	64 - 128
M&P-XYLENE	50	NA	36.1	72	69 - 113
METHYL T-BUTYL ETHER (MTBE)	25	NA	21.2	85	69 - 139
TETRACHLOROETHENE	25	NA	20.1	80	70 - 104
TOLUENE	25	NA	21.1	84	69 - 118
TRICHLOROETHENE	25	NA	17.8	71	71 - 104
VINYL CHLORIDE	25	NA	27.3	109	61 - 137

\* - 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:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20094  
**Batch Date:** 3/14/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Chloromethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Bromomethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Chloroethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Acetone	ND	ug/kg	EPA 8260B	50.0	03/14/18 11:48
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	03/14/18 11:48
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	03/14/18 11:48
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	03/14/18 11:48
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	03/14/18 11:48
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Benzene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,2-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	03/14/18 11:48
TOLUENE	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	03/14/18 11:48
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,2-Dibromoethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20094  
**Batch Date:** 3/14/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	03/14/18 11:48
o-Xylene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Styrene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Bromoform	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,2-Dibromo-3-chloropropane	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
Naphthalene	ND	ug/kg	EPA 8260B	10.0	03/14/18 11:48
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	03/14/18 11:48
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	03/14/18 11:48
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	03/14/18 11:48

Notes/Comments:

LLQ - Lowest Level of Quantitation

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



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 20094

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
PX-YD-1 (2-2.5) / 18031302-01	3/14/2018 12:18:00 PM	98	101	103
PX-YD-2 (2-2.5) / 18031302-02	3/14/2018 12:48:00 PM	98	101	102
PX-YD-3 (2-2.5) / 18031302-03	3/14/2018 1:18:00 PM	95	101	105
PX-YD-4 (2-2.5) / 18031302-04	3/14/2018 1:49:00 PM	102	115	104
PX-YD-5 (2-2.5) / 18031302-05	3/14/2018 2:19:00 PM	117	103	88
PX-YD-6 (2-2.5) / 18031302-06	3/14/2018 2:49:00 PM	117	103	103
PX-YD-7 (2-2.5) / 18031302-07	3/14/2018 3:20:00 PM	103	100	105
PX-YD-8 (2-2.5) / 18031302-08	3/15/2018 10:33:00 AM	104	95	102
PX-YD-9 (2-2.5) / 18031302-09	3/14/2018 4:20:00 PM	117	103	103
PX-YD-10 (2-2.5) / 18031302-10	3/14/2018 4:50:00 PM	109	108	105
PX-YD-11 (2-2.5) / 18031302-11	3/14/2018 5:21:00 PM	103	105	104
DUP 1 / 18031302-12	3/14/2018 5:51:00 PM	103	106	105
	Upper Limit	120	120	120
	Lower Limit	85	85	85

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20094  
 MATRIX: SOIL INSTRUMENT: VOC1  
 SAMPLE ID: 18031302-11 MS  
 DATE ANALYZED: 03/14/18 10:53 PM  
 LAB FILE IDs: 25.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
BENZENE	25	3.77	42	151 *	63 - 141
ETHYLBENZENE	25	2.4	25	92	55 - 133
M&P-XYLENE	50	9.19	54	90	54 - 148
METHYL T-BUTYL ETHER (MTBE)	25	0	27	107	60 - 140
NAPHTHALENE	25	5.51	30	96	13 - 132
O-XYLENE	25	4.06	27	90	57 - 145
TOLUENE	25	8.77	59	200 *	60 - 150
VINYL CHLORIDE	25	0	27	106	23 - 158

SAMPLE ID: 18031302-11 MSD  
 DATE ANALYZED: 03/14/18 11:23 PM  
 LAB FILE IDs: 26.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPK DUP CONC (ppb)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
BENZENE	25	3.77	21	67	67.8	40	63 - 141
ETHYLBENZENE	25	2.4	21	73	20.8	40	55 - 133
M&P-XYLENE	50	9.19	42	65	26.4	40	54 - 148
METHYL T-BUTYL ETHER (MTBE)	25	0	24	95	11.7	40	60 - 140
NAPHTHALENE	25	5.51	24	76	19.3	40	13 - 132
O-XYLENE	25	4.06	21	67	24.4	40	57 - 145
TOLUENE	25	8.77	23	56 *	88.8	40	60 - 150
VINYL CHLORIDE	25	0	26	104	2.4	40	23 - 158

\* - Indicates values outside of QC control limits due to clay matrix.

**Calculations:**

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

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



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20092  
MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
SAMPLE ID: LCS  
DATE ANALYZED: 3/14/2018 10:34:00 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	4876.2	89	75 - 125

\* - 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:** GRO  
**Matrix:** Soil

**Batch ID:** 20092  
**Batch Date:** 3/14/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	03/14/18 10:57

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/WATER

BATCH NUMBER:

20092

Sample ID	Date/Time Analyzed	TFT
PX-YD-1 (2-2.5) / 18031302-01	3/14/2018 11:21:00 AM	79
PX-YD-2 (2-2.5) / 18031302-02	3/14/2018 11:45:00 AM	78
PX-YD-3 (2-2.5) / 18031302-03	3/14/2018 12:09:00 PM	61
PX-YD-4 (2-2.5) / 18031302-04	3/14/2018 12:32:00 PM	77
PX-YD-5 (2-2.5) / 18031302-05	3/14/2018 12:56:00 PM	73
PX-YD-6 (2-2.5) / 18031302-06	3/14/2018 1:33:00 PM	62
PX-YD-7 (2-2.5) / 18031302-07	3/14/2018 2:11:00 PM	71
PX-YD-8 (2-2.5) / 18031302-08	3/14/2018 2:47:00 PM	66
PX-YD-9 (2-2.5) / 18031302-09	3/14/2018 3:23:00 PM	73
PX-YD-10 (2-2.5) / 18031302-10	3/14/2018 3:47:00 PM	82
PX-YD-11 (2-2.5) / 18031302-11	3/14/2018 4:11:00 PM	71
DUP 1 / 18031302-12	3/14/2018 4:34:00 PM	115
FB 031318 / 18031302-13	3/14/2018 4:58:00 PM	61

Upper Limit	118
Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

GRO

## MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20092  
 MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
 SAMPLE ID: 18031302-11 MS  
 DATE ANALYZED: 03/14/18 8:07 PM  
 LAB FILE IDs: 25.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	366.68	3046	49 *	50 - 150

SAMPLE ID: 18031302-11 MSD  
 DATE ANALYZED: 03/14/18 8:30 PM  
 LAB FILE IDs: 26.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPK DUP CONC (ppb)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	366.68	2846	45 *	6.8	40	50 - 150

\* - Indicates values outside of QC control limits due to clay matrix.

**Calculations:**

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

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



# CALIBER ANALYTICAL SERVICES

## DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20089  
MATRIX: SOIL INSTRUMENT: DRO1  
SAMPLE ID: LCS  
DATE ANALYZED: 3/14/2018 11:49:00 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	501.1	98	84 - 120

\* - 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:** DRO  
**Matrix:** Soil

**Batch ID:** 20089  
**Batch Date:** 3/13/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	03/14/18 11:49

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: 20089

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-YD-1 (2-2.5) / 18031302-01	3/14/2018 12:23:00 PM	74
PX-YD-2 (2-2.5) / 18031302-02	3/14/2018 12:23:00 PM	90
PX-YD-3 (2-2.5) / 18031302-03	3/14/2018 12:58:00 PM	93
PX-YD-4 (2-2.5) / 18031302-04	3/14/2018 12:58:00 PM	81
PX-YD-5 (2-2.5) / 18031302-05	3/14/2018 1:33:00 PM	108
PX-YD-6 (2-2.5) / 18031302-06	3/14/2018 1:33:00 PM	113
PX-YD-7 (2-2.5) / 18031302-07	3/14/2018 2:08:00 PM	78
PX-YD-8 (2-2.5) / 18031302-08	3/14/2018 2:08:00 PM	82
PX-YD-9 (2-2.5) / 18031302-09	3/14/2018 2:43:00 PM	91
PX-YD-10 (2-2.5) / 18031302-10	3/14/2018 2:43:00 PM	97
PX-YD-11 (2-2.5) / 18031302-11	3/14/2018 3:18:00 PM	100
DUP 1 / 18031302-12	3/14/2018 3:18:00 PM	101
	Upper Limit	126
	Lower Limit	46

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## DRO

### MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20089  
 MATRIX: SOIL INSTRUMENT: DRO1  
 SAMPLE ID: 18031302-11 MS  
 DATE ANALYZED: 03/14/18 5:03 PM  
 LAB FILE IDs: 22.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPIKE CONC (mg/L)	SPIKE REC (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	239.15	1318	211 *	52 - 124

SAMPLE ID: 18031302-11 MSD  
 DATE ANALYZED: 03/14/18 5:38 PM  
 LAB FILE IDs: 23.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPK DUP CONC (mg/L)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	239.15	919	133 *	35.7	40	52 - 124

\* - Indicates values outside of QC control limits due to clay matrix.

#### Calculations:

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

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



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 9:30  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-12	Matrix:	Soil	Lab ID:	18031405-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	81	%		SM2540G	03/15/18	03/16/18 10:20	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Chloromethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Vinyl chloride	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Bromomethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Chloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Trichlorofluoromethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,1-Dichloroethene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Acetone	ND	ug/kg	270	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Carbon disulfide	ND	ug/kg	53	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Methyl acetate	ND	ug/kg	130	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Methylene chloride	ND	ug/kg	130	EPA 8260B	03/16/18	03/16/18 1:06	GFH
trans-1,2-Dichloroethene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,1-Dichloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
cis-1,2-Dichloroethene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
2-Butanone (MEK)	ND	ug/kg	270	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Chloroform	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,1,1-Trichloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Cyclohexane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Carbon tetrachloride	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Benzene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,2-Dichloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Trichloroethene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Methylcyclohexane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,2-Dichloropropane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Bromodichloromethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
cis-1,3-Dichloropropene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	53	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Toluene	250	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
trans-1,3-Dichloropropene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,1,2-Trichloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Tetrachloroethene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
2-Hexanone (MBK)	ND	ug/kg	53	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Dibromochloromethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,2-Dibromoethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Chlorobenzene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Ethylbenzene	110	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
m&p-Xylene	490	ug/kg	53	EPA 8260B	03/16/18	03/16/18 1:06	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 9:30  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-12	Matrix:	Soil	Lab ID:	18031405-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	250	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Styrene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Bromoform	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Isopropylbenzene	31	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,3-Dichlorobenzene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,4-Dichlorobenzene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,2-Dichlorobenzene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Naphthalene	190	ug/kg	53	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
tert-Butanol (TBA)	ND	ug/kg	130	EPA 8260B	03/16/18	03/16/18 1:06	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	130	EPA 8260B	03/16/18	03/16/18 1:06	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 1:06	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	190	mg/kg	23	EPA 8015C	03/15/18	03/15/18 12:13	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	19	mg/kg	2.4	EPA 8015C	03/15/18	03/15/18 21:19	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: 03/14/18 9:35  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-13	Matrix:	Soil	Lab ID:	18031405-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	90	%		SM2540G	03/15/18	03/16/18 10:20	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Chloromethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Vinyl chloride	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Bromomethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Chloroethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Trichlorofluoromethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,1-Dichloroethene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Acetone	ND	ug/kg	56000	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Carbon disulfide	ND	ug/kg	11000	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Methyl acetate	ND	ug/kg	28000	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Methylene chloride	ND	ug/kg	28000	EPA 8260B	03/16/18	03/16/18 1:36	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,1-Dichloroethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
2-Butanone (MEK)	ND	ug/kg	56000	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Chloroform	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,1,1-Trichloroethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Cyclohexane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Carbon tetrachloride	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Benzene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,2-Dichloroethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Trichloroethene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Methylcyclohexane	6,200	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,2-Dichloropropane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Bromodichloromethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11000	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Toluene	31,000	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,1,2-Trichloroethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Tetrachloroethene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
2-Hexanone (MBK)	ND	ug/kg	11000	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Dibromochloromethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,2-Dibromoethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Chlorobenzene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Ethylbenzene	13,000	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
m&p-Xylene	56,000	ug/kg	11000	EPA 8260B	03/16/18	03/16/18 1:36	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 9:35  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-13	Matrix:	Soil	Lab ID:	18031405-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	24,000	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Styrene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Bromoform	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Isopropylbenzene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,3-Dichlorobenzene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,4-Dichlorobenzene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,2-Dichlorobenzene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Naphthalene	9,600	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
tert-Butanol (TBA)	ND	ug/kg	28000	EPA 8260B	03/16/18	03/16/18 1:36	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	28000	EPA 8260B	03/16/18	03/16/18 1:36	GFH
tert-Amyl ethyl ether (TAEI)	ND	ug/kg	5600	EPA 8260B	03/16/18	03/16/18 1:36	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	2,100	mg/kg	23	EPA 8015C	03/15/18	03/15/18 12:48	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	5,500	mg/kg	2200	EPA 8015C	03/15/18	03/15/18 16:32	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: 03/14/18 10:05  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-14	Matrix:	Soil	Lab ID:	18031405-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	84	%		SM2540G	03/15/18	03/16/18 10:20	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Acetone	ND	ug/kg	55	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Methyl acetate	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Methylene chloride	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 2:07	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
2-Butanone (MEK)	ND	ug/kg	55	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Benzene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Toluene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
Ethylbenzene	ND	ug/kg	5	EPA 8260B	03/16/18	03/16/18 2:07	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 2:07	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 10:10  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-15	Matrix:	Soil	Lab ID:	18031405-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/15/18	03/16/18 10:21	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Acetone	ND	ug/kg	71	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Carbon disulfide	ND	ug/kg	14	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Methyl acetate	ND	ug/kg	35	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Methylene chloride	ND	ug/kg	35	EPA 8260B	03/16/18	03/16/18 2:37	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
2-Butanone (MEK)	ND	ug/kg	71	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Toluene	14	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
2-Hexanone (MBK)	ND	ug/kg	14	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Ethylbenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
m&p-Xylene	19	ug/kg	14	EPA 8260B	03/16/18	03/16/18 2:37	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 10:10  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-15	Matrix:	Soil	Lab ID:	18031405-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	11	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Styrene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Naphthalene	15	ug/kg	14	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
tert-Butanol (TBA)	ND	ug/kg	35	EPA 8260B	03/16/18	03/16/18 2:37	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	35	EPA 8260B	03/16/18	03/16/18 2:37	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 2:37	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	270	mg/kg	12	EPA 8015C	03/15/18	03/15/18 13:23	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	1.1	mg/kg	0.28	EPA 8015C	03/16/18	03/16/18 11:25	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: 03/14/18 10:20  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-16	Matrix:	Soil	Lab ID:	18031405-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	81	%		SM2540G	03/15/18	03/16/18 10:21	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Chloromethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Vinyl chloride	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Bromomethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Chloroethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Trichlorofluoromethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
1,1-Dichloroethene	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Acetone	ND	ug/kg	280	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Carbon disulfide	ND	ug/kg	57	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Methyl acetate	ND	ug/kg	140	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Methylene chloride	ND	ug/kg	140	EPA 8260B	03/16/18	03/16/18 3:07	GFH
trans-1,2-Dichloroethene	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
1,1-Dichloroethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
cis-1,2-Dichloroethene	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
2-Butanone (MEK)	ND	ug/kg	280	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Chloroform	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
1,1,1-Trichloroethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Cyclohexane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Carbon tetrachloride	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Benzene	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
1,2-Dichloroethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Trichloroethene	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Methylcyclohexane	53	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
1,2-Dichloropropane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Bromodichloromethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
cis-1,3-Dichloropropene	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	57	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Toluene	630	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
trans-1,3-Dichloropropene	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
1,1,2-Trichloroethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Tetrachloroethene	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
2-Hexanone (MBK)	ND	ug/kg	57	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Dibromochloromethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
1,2-Dibromoethane	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Chlorobenzene	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
Ethylbenzene	470	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:07	GFH
m&p-Xylene	2,100	ug/kg	57	EPA 8260B	03/16/18	03/16/18 3:07	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 10:30  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-17	Matrix:	Soil	Lab ID:	18031405-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	84	%		SM2540G	03/15/18	03/16/18 10:21	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Acetone	ND	ug/kg	56	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Methyl acetate	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Methylene chloride	ND	ug/kg	28	EPA 8260B	03/16/18	03/16/18 3:36	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
2-Butanone (MEK)	ND	ug/kg	56	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 3:36	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 3:36	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 11:05  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-18	Matrix:	Soil	Lab ID:	18031405-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	84	%		SM2540G	03/15/18	03/16/18 10:21	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Acetone	ND	ug/kg	110	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Carbon disulfide	ND	ug/kg	15	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Methyl acetate	ND	ug/kg	37	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Methylene chloride	ND	ug/kg	37	EPA 8260B	03/16/18	03/16/18 4:06	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
2-Butanone (MEK)	ND	ug/kg	73	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	15	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Toluene	23	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
2-Hexanone (MBK)	ND	ug/kg	15	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Ethylbenzene	19	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
m&p-Xylene	110	ug/kg	15	EPA 8260B	03/16/18	03/16/18 4:06	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 11:05  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-18	Matrix:	Soil	Lab ID:	18031405-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	58	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Styrene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Isopropylbenzene	8	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Naphthalene	26	ug/kg	15	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
tert-Butanol (TBA)	ND	ug/kg	37	EPA 8260B	03/16/18	03/16/18 4:06	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	37	EPA 8260B	03/16/18	03/16/18 4:06	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/16/18	03/16/18 4:06	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	700	mg/kg	12	EPA 8015C	03/15/18	03/15/18 13:58	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	8.7	mg/kg	1.6	EPA 8015C	03/15/18	03/15/18 18:34	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: 03/14/18 11:15  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-19	Matrix:	Soil	Lab ID:	18031405-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	81	%		SM2540G	03/15/18	03/16/18 10:21	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Acetone	ND	ug/kg	60	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Methyl acetate	ND	ug/kg	30	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Methylene chloride	ND	ug/kg	30	EPA 8260B	03/16/18	03/16/18 4:36	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
2-Butanone (MEK)	ND	ug/kg	60	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Toluene	7	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
m&p-Xylene	35	ug/kg	12	EPA 8260B	03/16/18	03/16/18 4:36	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 11:15  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-19	Matrix:	Soil	Lab ID:	18031405-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	22	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Naphthalene	ND	ug/kg	12	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
tert-Butanol (TBA)	ND	ug/kg	30	EPA 8260B	03/16/18	03/16/18 4:36	GFH
Diisopropyl ether (DIPE)	7	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	30	EPA 8260B	03/16/18	03/16/18 4:36	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 4:36	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	110	mg/kg	12	EPA 8015C	03/15/18	03/15/18 14:33	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	0.41	mg/kg	0.28	EPA 8015C	03/15/18	03/15/18 18:58	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: Matt Cohen  
QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 11:35  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-20	Matrix:	Soil	Lab ID:	18031405-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	81	%		SM2540G	03/15/18	03/16/18 10:21	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Chloromethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Vinyl chloride	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Bromomethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Chloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Trichlorofluoromethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
1,1-Dichloroethene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Acetone	ND	ug/kg	270	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Carbon disulfide	ND	ug/kg	54	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Methyl acetate	ND	ug/kg	130	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Methylene chloride	ND	ug/kg	130	EPA 8260B	03/16/18	03/16/18 5:06	GFH
trans-1,2-Dichloroethene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
1,1-Dichloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
cis-1,2-Dichloroethene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
2-Butanone (MEK)	ND	ug/kg	270	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Chloroform	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
1,1,1-Trichloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Cyclohexane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Carbon tetrachloride	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Benzene	49	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
1,2-Dichloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Trichloroethene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Methylcyclohexane	82	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
1,2-Dichloropropane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Bromodichloromethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
cis-1,3-Dichloropropene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	54	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Toluene	1,000	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
trans-1,3-Dichloropropene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
1,1,2-Trichloroethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Tetrachloroethene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
2-Hexanone (MBK)	ND	ug/kg	54	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Dibromochloromethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
1,2-Dibromoethane	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Chlorobenzene	ND	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
Ethylbenzene	510	ug/kg	27	EPA 8260B	03/16/18	03/16/18 5:06	GFH
m&p-Xylene	2,600	ug/kg	54	EPA 8260B	03/16/18	03/16/18 5:06	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 11:45  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-21	Matrix:	Soil	Lab ID:	18031405-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	77	%		SM2540G	03/15/18	03/16/18 10:21	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Chloromethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Vinyl chloride	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Bromomethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Chloroethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Trichlorofluoromethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
1,1-Dichloroethene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Acetone	ND	ug/kg	110	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Carbon disulfide	ND	ug/kg	22	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Methyl acetate	ND	ug/kg	54	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Methylene chloride	ND	ug/kg	54	EPA 8260B	03/16/18	03/16/18 5:36	GFH
trans-1,2-Dichloroethene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
1,1-Dichloroethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
cis-1,2-Dichloroethene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
2-Butanone (MEK)	ND	ug/kg	110	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Chloroform	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
1,1,1-Trichloroethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Cyclohexane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Carbon tetrachloride	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Benzene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
1,2-Dichloroethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Trichloroethene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Methylcyclohexane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
1,2-Dichloropropane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Bromodichloromethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
cis-1,3-Dichloropropene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	22	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Toluene	95	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
trans-1,3-Dichloropropene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
1,1,2-Trichloroethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Tetrachloroethene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
2-Hexanone (MBK)	ND	ug/kg	22	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Dibromochloromethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
1,2-Dibromoethane	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Chlorobenzene	ND	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
Ethylbenzene	77	ug/kg	11	EPA 8260B	03/16/18	03/16/18 5:36	GFH
m&p-Xylene	460	ug/kg	22	EPA 8260B	03/16/18	03/16/18 5:36	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 13:20  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-22	Matrix:	Soil	Lab ID:	18031405-11		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	86	%		SM2540G	03/15/18	03/16/18 10:21	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Chloromethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Vinyl chloride	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Bromomethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Chloroethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Trichlorofluoromethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,1-Dichloroethene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Acetone	ND	ug/kg	260	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Carbon disulfide	ND	ug/kg	52	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Methyl acetate	ND	ug/kg	130	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Methylene chloride	ND	ug/kg	130	EPA 8260B	03/16/18	03/16/18 6:06	GFH
trans-1,2-Dichloroethene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,1-Dichloroethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
cis-1,2-Dichloroethene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
2-Butanone (MEK)	ND	ug/kg	260	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Chloroform	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,1,1-Trichloroethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Cyclohexane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Carbon tetrachloride	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Benzene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,2-Dichloroethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Trichloroethene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Methylcyclohexane	90	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,2-Dichloropropane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Bromodichloromethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
cis-1,3-Dichloropropene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	52	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Toluene	200	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
trans-1,3-Dichloropropene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,1,2-Trichloroethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Tetrachloroethene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
2-Hexanone (MBK)	ND	ug/kg	52	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Dibromochloromethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,2-Dibromoethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Chlorobenzene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Ethylbenzene	80	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
m&p-Xylene	790	ug/kg	52	EPA 8260B	03/16/18	03/16/18 6:06	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 13:20  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-22	Matrix:	Soil	Lab ID:	18031405-11		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	370	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Styrene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Bromoform	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Isopropylbenzene	33	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,3-Dichlorobenzene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,4-Dichlorobenzene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,2-Dichlorobenzene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Naphthalene	250	ug/kg	52	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
tert-Butanol (TBA)	ND	ug/kg	130	EPA 8260B	03/16/18	03/16/18 6:06	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	130	EPA 8260B	03/16/18	03/16/18 6:06	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	26	EPA 8260B	03/16/18	03/16/18 6:06	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	410	mg/kg	20	EPA 8015C	03/15/18	03/15/18 15:09	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	39	mg/kg	1.3	EPA 8015C	03/15/18	03/15/18 20:08	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: 03/14/18 13:30  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-23	Matrix:	Soil	Lab ID:	18031405-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	78	%		SM2540G	03/15/18	03/16/18 10:21	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Acetone	ND	ug/kg	310	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Methyl acetate	ND	ug/kg	31	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Methylene chloride	ND	ug/kg	31	EPA 8260B	03/16/18	03/16/18 6:35	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
2-Butanone (MEK)	ND	ug/kg	62	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Benzene	8	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Toluene	52	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Ethylbenzene	13	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
m&p-Xylene	49	ug/kg	12	EPA 8260B	03/16/18	03/16/18 6:35	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 13:30  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-23	Matrix:	Soil	Lab ID:	18031405-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	27	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Naphthalene	ND	ug/kg	12	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
tert-Butanol (TBA)	ND	ug/kg	31	EPA 8260B	03/16/18	03/16/18 6:35	GFH
Diisopropyl ether (DIPE)	16	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	31	EPA 8260B	03/16/18	03/16/18 6:35	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/16/18	03/16/18 6:35	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	630	mg/kg	23	EPA 8015C	03/15/18	03/15/18 15:44	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	8.7	mg/kg	0.27	EPA 8015C	03/15/18	03/15/18 20:32	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: 03/14/18 13:35  
Date Received: 03/14/18 16:20  
Date Issued: 03/20/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031405

Field Sample ID:	PX-YD-24	Matrix:	Soil	Lab ID:	18031405-13		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	83	%		SM2540G	03/16/18	03/16/18 10:21	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Chloromethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Vinyl chloride	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Bromomethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Chloroethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Trichlorofluoromethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
1,1-Dichloroethene	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Acetone	ND	ug/kg	440	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Carbon disulfide	ND	ug/kg	88	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Methyl acetate	ND	ug/kg	220	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Methylene chloride	ND	ug/kg	220	EPA 8260B	03/16/18	03/16/18 7:05	GFH
trans-1,2-Dichloroethene	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
1,1-Dichloroethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
cis-1,2-Dichloroethene	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
2-Butanone (MEK)	ND	ug/kg	440	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Chloroform	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
1,1,1-Trichloroethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Cyclohexane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Carbon tetrachloride	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Benzene	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
1,2-Dichloroethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Trichloroethene	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Methylcyclohexane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
1,2-Dichloropropane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Bromodichloromethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
cis-1,3-Dichloropropene	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	88	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Toluene	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
trans-1,3-Dichloropropene	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
1,1,2-Trichloroethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Tetrachloroethene	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
2-Hexanone (MBK)	ND	ug/kg	88	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Dibromochloromethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
1,2-Dibromoethane	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Chlorobenzene	ND	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
Ethylbenzene	45	ug/kg	44	EPA 8260B	03/16/18	03/16/18 7:05	GFH
m&p-Xylene	260	ug/kg	88	EPA 8260B	03/16/18	03/16/18 7:05	GFH









# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20105  
 MATRIX: SOIL INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/16/2018 12:06:00 AM  
 LAB FILE IDs: 24.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	25	NA	23.2	93	54 - 127
BENZENE	25	NA	23.6	94	69 - 126
CARBON TETRACHLORIDE	25	NA	26.0	104	56 - 135
CHLOROBENZENE	25	NA	21.2	85	67 - 107
CHLOROFORM	25	NA	23.3	93	64 - 128
M&P-XYLENE	50	NA	44.8	90	69 - 113
METHYL T-BUTYL ETHER (MTBE)	25	NA	23.7	95	69 - 139
TETRACHLOROETHENE	25	NA	24.7	99	70 - 104
TOLUENE	25	NA	24.8	99	69 - 118
TRICHLOROETHENE	25	NA	23.5	94	71 - 104
VINYL CHLORIDE	25	NA	29.1	116	61 - 137

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20105  
**Batch Date:** 3/15/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Chloromethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Bromomethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Chloroethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Acetone	ND	ug/kg	EPA 8260B	50.0	03/16/18 0:36
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	03/16/18 0:36
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	03/16/18 0:36
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	03/16/18 0:36
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	03/16/18 0:36
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Benzene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,2-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	03/16/18 0:36
TOLUENE	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	03/16/18 0:36
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,2-Dibromoethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20105  
**Batch Date:** 3/15/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	03/16/18 0:36
o-Xylene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Styrene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Bromoform	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,2-Dibromo-3-chloropropane	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
Naphthalene	ND	ug/kg	EPA 8260B	10.0	03/16/18 0:36
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	03/16/18 0:36
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	03/16/18 0:36
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	03/16/18 0:36

Notes/Comments:

LLQ - Lowest Level of Quantitation

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



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 20105

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
PX-YD-12 / 18031405-01	3/16/2018 1:06:00 AM	103	97	102
PX-YD-13 / 18031405-02	3/16/2018 1:36:00 AM	102	96	102
PX-YD-14 / 18031405-03	3/16/2018 2:07:00 AM	120	97	104
PX-YD-15 / 18031405-04	3/16/2018 2:37:00 AM	97	97	104
PX-YD-16 / 18031405-05	3/16/2018 3:07:00 AM	111	101	101
PX-YD-17 / 18031405-06	3/16/2018 3:36:00 AM	97	100	105
PX-YD-18 / 18031405-07	3/16/2018 4:06:00 AM	109	100	104
PX-YD-19 / 18031405-08	3/16/2018 4:36:00 AM	103	99	105
PX-YD-20 / 18031405-09	3/16/2018 5:06:00 AM	141*	99	105
PX-YD-21 / 18031405-10	3/16/2018 5:36:00 AM	103	91	102
PX-YD-22 / 18031405-11	3/16/2018 6:06:00 AM	96	91	98
PX-YD-23 / 18031405-12	3/16/2018 6:35:00 AM	107	92	100
PX-YD-24 / 18031405-13	3/16/2018 7:05:00 AM	91	90	101
	Upper Limit	120	120	120
	Lower Limit	85	85	85

\* - Indicates values outside of QC control limits due to coeluting peaks.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20104  
MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
SAMPLE ID: LCS  
DATE ANALYZED: 3/15/2018 3:13:00 PM  
LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	4563.1	83	75 - 125

\* - 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:** GRO  
**Matrix:** Soil

**Batch ID:** 20104  
**Batch Date:** 3/15/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	03/15/18 15:36

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: 20104

Sample ID	Date/Time Analyzed	TFT
PX-YD-12 / 18031405-01	3/15/2018 9:19:00 PM	63
PX-YD-13 / 18031405-02	3/15/2018 4:32:00 PM	62
PX-YD-14 / 18031405-03	3/15/2018 4:59:00 PM	74
PX-YD-15 / 18031405-04	3/16/2018 11:25:00 AM	79
PX-YD-16 / 18031405-05	3/15/2018 5:47:00 PM	63
PX-YD-17 / 18031405-06	3/15/2018 6:10:00 PM	60
PX-YD-18 / 18031405-07	3/15/2018 6:34:00 PM	68
PX-YD-19 / 18031405-08	3/15/2018 6:58:00 PM	70
PX-YD-20 / 18031405-09	3/15/2018 7:21:00 PM	62
PX-YD-21 / 18031405-10	3/15/2018 7:45:00 PM	67
PX-YD-22 / 18031405-11	3/15/2018 8:08:00 PM	69
PX-YD-23 / 18031405-12	3/15/2018 8:32:00 PM	69
PX-YD-24 / 18031405-13	3/15/2018 8:55:00 PM	60

Upper Limit	118
Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20098  
MATRIX: SOIL INSTRUMENT: DRO1  
SAMPLE ID: LCS  
DATE ANALYZED: 3/15/2018 12:13:00 PM  
LAB FILE IDs: 33.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	486.1	95	84 - 120

\* - 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:** DRO  
**Matrix:** Soil

**Batch ID:** 20098  
**Batch Date:** 3/15/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	03/15/18 11:38

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: 20098

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-YD-12 / 18031405-01	3/15/2018 12:13:00 PM	67
PX-YD-13 / 18031405-02	3/15/2018 12:48:00 PM	82
PX-YD-14 / 18031405-03	3/15/2018 12:48:00 PM	96
PX-YD-15 / 18031405-04	3/15/2018 1:23:00 PM	84
PX-YD-16 / 18031405-05	3/15/2018 1:23:00 PM	115
PX-YD-17 / 18031405-06	3/15/2018 1:58:00 PM	72
PX-YD-18 / 18031405-07	3/15/2018 1:58:00 PM	127*
PX-YD-19 / 18031405-08	3/15/2018 2:33:00 PM	99
PX-YD-20 / 18031405-09	3/15/2018 2:33:00 PM	124
PX-YD-21 / 18031405-10	3/15/2018 3:09:00 PM	99
PX-YD-22 / 18031405-11	3/15/2018 3:09:00 PM	102
PX-YD-23 / 18031405-12	3/15/2018 3:44:00 PM	90
PX-YD-24 / 18031405-13	3/15/2018 3:44:00 PM	103

Upper Limit	126
Lower Limit	46

\* - Indicates values outside of QC control limits due to coeluting peaks.



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 10:00  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-25	Matrix:	Soil	Lab ID:	18031507-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	84	%		SM2540G	03/19/18	03/19/18 12:28	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Chloromethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Vinyl chloride	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Bromomethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Chloroethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Trichlorofluoromethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
1,1-Dichloroethene	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Acetone	ND	ug/kg	56000	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Carbon disulfide	ND	ug/kg	11000	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Methyl acetate	ND	ug/kg	28000	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Methylene chloride	ND	ug/kg	28000	EPA 8260B	03/17/18	03/17/18 16:02	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
1,1-Dichloroethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
2-Butanone (MEK)	ND	ug/kg	56000	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Chloroform	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
1,1,1-Trichloroethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Cyclohexane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Carbon tetrachloride	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Benzene	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
1,2-Dichloroethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Trichloroethene	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Methylcyclohexane	6,000	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
1,2-Dichloropropane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Bromodichloromethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11000	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Toluene	15,000	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
1,1,2-Trichloroethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Tetrachloroethene	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
2-Hexanone (MBK)	ND	ug/kg	11000	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Dibromochloromethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
1,2-Dibromoethane	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Chlorobenzene	ND	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
Ethylbenzene	17,000	ug/kg	5600	EPA 8260B	03/17/18	03/17/18 16:02	GFH
m&p-Xylene	81,000	ug/kg	11000	EPA 8260B	03/17/18	03/17/18 16:02	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 10:10  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-26	Matrix:	Soil	Lab ID:	18031507-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	77	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Chloromethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Vinyl chloride	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Bromomethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Chloroethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Trichlorofluoromethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,1-Dichloroethene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Acetone	ND	ug/kg	59000	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Carbon disulfide	ND	ug/kg	12000	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Methyl acetate	ND	ug/kg	30000	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Methylene chloride	ND	ug/kg	30000	EPA 8260B	03/17/18	03/17/18 16:32	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,1-Dichloroethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
2-Butanone (MEK)	ND	ug/kg	59000	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Chloroform	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,1,1-Trichloroethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Cyclohexane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Carbon tetrachloride	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Benzene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,2-Dichloroethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Trichloroethene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Methylcyclohexane	16,000	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,2-Dichloropropane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Bromodichloromethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12000	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Toluene	34,000	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,1,2-Trichloroethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Tetrachloroethene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
2-Hexanone (MBK)	ND	ug/kg	12000	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Dibromochloromethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,2-Dibromoethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Chlorobenzene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Ethylbenzene	29,000	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
m&p-Xylene	120,000	ug/kg	12000	EPA 8260B	03/17/18	03/17/18 16:32	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 10:10  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-26	Matrix:	Soil	Lab ID:	18031507-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	54,000	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Styrene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Bromoform	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Isopropylbenzene	11,000	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,3-Dichlorobenzene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,4-Dichlorobenzene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,2-Dichlorobenzene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Naphthalene	30,000	ug/kg	12000	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
tert-Butanol (TBA)	ND	ug/kg	30000	EPA 8260B	03/17/18	03/17/18 16:32	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	30000	EPA 8260B	03/17/18	03/17/18 16:32	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	5900	EPA 8260B	03/17/18	03/17/18 16:32	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	25,000	mg/kg	2400	EPA 8015C	03/16/18	03/16/18 17:14	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	5,800	mg/kg	240	EPA 8015C	03/16/18	03/16/18 17:41	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: 03/15/18 10:15  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-27	Matrix:	Soil	Lab ID:	18031507-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	80	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Acetone	ND	ug/kg	100	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Carbon disulfide	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Methyl acetate	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Methylene chloride	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 17:02	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
2-Butanone (MEK)	ND	ug/kg	68	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Toluene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
2-Hexanone (MBK)	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
Ethylbenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH
m&p-Xylene	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 17:02	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 10:15  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-27			Matrix:	Soil	Lab ID: 18031507-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
Styrene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
Bromoform	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
Naphthalene	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
tert-Butanol (TBA)	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 17:02	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	750	mg/kg	13	EPA 8015C	03/16/18	03/16/18 12:00	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	46	mg/kg	1.1	EPA 8015C	03/16/18	03/16/18 18:04	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: 03/15/18 10:25  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-28	Matrix:	Soil	Lab ID:	18031507-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	79	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Acetone	ND	ug/kg	59	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Methyl acetate	ND	ug/kg	30	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Methylene chloride	ND	ug/kg	30	EPA 8260B	03/17/18	03/17/18 17:33	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
2-Butanone (MEK)	ND	ug/kg	59	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 17:33	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 10:25  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-28	Matrix:	Soil	Lab ID:	18031507-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Naphthalene	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
tert-Butanol (TBA)	ND	ug/kg	30	EPA 8260B	03/17/18	03/17/18 17:33	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	30	EPA 8260B	03/17/18	03/17/18 17:33	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 17:33	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	13	EPA 8015C	03/16/18	03/16/18 12:00	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.24	EPA 8015C	03/16/18	03/16/18 18:28	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: 03/15/18 10:35  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-29	Matrix:	Soil	Lab ID:	18031507-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	79	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Acetone	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Carbon disulfide	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Methyl acetate	ND	ug/kg	33	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Methylene chloride	ND	ug/kg	33	EPA 8260B	03/17/18	03/17/18 18:03	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
2-Butanone (MEK)	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Toluene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Ethylbenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
m&p-Xylene	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 18:03	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 10:35  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-29	Matrix:	Soil	Lab ID:	18031507-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Styrene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Naphthalene	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
tert-Butanol (TBA)	ND	ug/kg	33	EPA 8260B	03/17/18	03/17/18 18:03	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	33	EPA 8260B	03/17/18	03/17/18 18:03	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 18:03	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	19	mg/kg	13	EPA 8015C	03/16/18	03/16/18 12:34	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.24	EPA 8015C	03/16/18	03/16/18 18:52	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: 03/15/18 10:50  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-30	Matrix:	Soil	Lab ID:	18031507-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	79	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Chloromethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Vinyl chloride	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Bromomethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Chloroethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Trichlorofluoromethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,1-Dichloroethene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Acetone	ND	ug/kg	670	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Carbon disulfide	ND	ug/kg	130	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Methyl acetate	ND	ug/kg	340	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Methylene chloride	ND	ug/kg	340	EPA 8260B	03/17/18	03/17/18 18:33	GFH
trans-1,2-Dichloroethene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,1-Dichloroethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
cis-1,2-Dichloroethene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
2-Butanone (MEK)	ND	ug/kg	670	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Chloroform	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,1,1-Trichloroethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Cyclohexane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Carbon tetrachloride	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Benzene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,2-Dichloroethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Trichloroethene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Methylcyclohexane	290	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,2-Dichloropropane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Bromodichloromethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
cis-1,3-Dichloropropene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	130	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Toluene	94	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
trans-1,3-Dichloropropene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,1,2-Trichloroethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Tetrachloroethene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
2-Hexanone (MBK)	ND	ug/kg	130	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Dibromochloromethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,2-Dibromoethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Chlorobenzene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Ethylbenzene	280	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
m&p-Xylene	1,300	ug/kg	130	EPA 8260B	03/17/18	03/17/18 18:33	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 10:50  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-30	Matrix:	Soil	Lab ID:	18031507-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	690	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Styrene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Bromoform	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Isopropylbenzene	250	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,3-Dichlorobenzene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,4-Dichlorobenzene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,2-Dichlorobenzene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Naphthalene	1,500	ug/kg	130	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
tert-Butanol (TBA)	ND	ug/kg	340	EPA 8260B	03/17/18	03/17/18 18:33	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	340	EPA 8260B	03/17/18	03/17/18 18:33	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 18:33	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	4,400	mg/kg	13	EPA 8015C	03/16/18	03/16/18 12:34	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	440	mg/kg	3	EPA 8015C	03/16/18	03/16/18 19:15	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: 03/15/18 11:45  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-31	Matrix:	Soil	Lab ID:	18031507-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Acetone	ND	ug/kg	70	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Carbon disulfide	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Methyl acetate	ND	ug/kg	35	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Methylene chloride	ND	ug/kg	35	EPA 8260B	03/17/18	03/17/18 19:04	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
2-Butanone (MEK)	ND	ug/kg	70	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Toluene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
2-Hexanone (MBK)	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Ethylbenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
m&p-Xylene	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 19:04	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 11:45  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-31	Matrix:	Soil	Lab ID:	18031507-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Styrene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Naphthalene	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
tert-Butanol (TBA)	ND	ug/kg	35	EPA 8260B	03/17/18	03/17/18 19:04	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	35	EPA 8260B	03/17/18	03/17/18 19:04	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:04	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	<b>820</b>	mg/kg	12	EPA 8015C	03/16/18	03/16/18 13:09	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	<b>17</b>	mg/kg	0.26	EPA 8015C	03/16/18	03/16/18 19:38	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: 03/15/18 11:50  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-32	Matrix:	Soil	Lab ID:	18031507-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	83	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Acetone	ND	ug/kg	68	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Carbon disulfide	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Methyl acetate	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Methylene chloride	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 19:34	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
2-Butanone (MEK)	ND	ug/kg	68	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Toluene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
2-Hexanone (MBK)	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Ethylbenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
m&p-Xylene	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 19:34	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 11:50  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-32	Matrix:	Soil	Lab ID:	18031507-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Styrene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Naphthalene	ND	ug/kg	14	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
tert-Butanol (TBA)	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 19:34	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 19:34	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 19:34	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	170	mg/kg	12	EPA 8015C	03/16/18	03/16/18 13:09	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	1.0	mg/kg	0.25	EPA 8015C	03/16/18	03/16/18 20:02	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: 03/15/18 12:05  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-33	Matrix:	Soil	Lab ID:	18031507-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	83	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Acetone	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Carbon disulfide	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Methyl acetate	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Methylene chloride	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 20:04	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
2-Butanone (MEK)	ND	ug/kg	67	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Toluene	18	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Ethylbenzene	7	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
m&p-Xylene	24	ug/kg	13	EPA 8260B	03/17/18	03/17/18 20:04	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 12:05  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-33	Matrix:	Soil	Lab ID:	18031507-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	14	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Styrene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Naphthalene	14	ug/kg	13	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
tert-Butanol (TBA)	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 20:04	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	34	EPA 8260B	03/17/18	03/17/18 20:04	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/17/18	03/17/18 20:04	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	1,000	mg/kg	12	EPA 8015C	03/16/18	03/16/18 13:44	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	10	mg/kg	1.3	EPA 8015C	03/16/18	03/16/18 20:25	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: 03/15/18 12:10  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-34	Matrix:	Soil	Lab ID:	18031507-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	83	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Acetone	ND	ug/kg	56	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Methyl acetate	ND	ug/kg	28	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Methylene chloride	ND	ug/kg	28	EPA 8260B	03/17/18	03/17/18 20:34	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
2-Butanone (MEK)	ND	ug/kg	56	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	03/17/18	03/17/18 20:34	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 12:10  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-34	Matrix:	Soil	Lab ID:	18031507-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Naphthalene	ND	ug/kg	11	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
tert-Butanol (TBA)	ND	ug/kg	28	EPA 8260B	03/17/18	03/17/18 20:34	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	28	EPA 8260B	03/17/18	03/17/18 20:34	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 20:34	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	13	EPA 8015C	03/16/18	03/16/18 13:44	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	1.6	mg/kg	0.22	EPA 8015C	03/16/18	03/16/18 20:49	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: 03/15/18 12:15  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-35	Matrix:	Soil	Lab ID:	18031507-11		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	86	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Chloromethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Vinyl chloride	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Bromomethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Chloroethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Trichlorofluoromethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
1,1-Dichloroethene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Acetone	ND	ug/kg	5900	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Carbon disulfide	ND	ug/kg	1200	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Methyl acetate	ND	ug/kg	2900	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Methylene chloride	ND	ug/kg	2900	EPA 8260B	03/17/18	03/18/18 15:22	GFH
trans-1,2-Dichloroethene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
1,1-Dichloroethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
cis-1,2-Dichloroethene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
2-Butanone (MEK)	ND	ug/kg	5900	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Chloroform	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
1,1,1-Trichloroethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Cyclohexane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Carbon tetrachloride	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Benzene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
1,2-Dichloroethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Trichloroethene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Methylcyclohexane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
1,2-Dichloropropane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Bromodichloromethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
cis-1,3-Dichloropropene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1200	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Toluene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
trans-1,3-Dichloropropene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
1,1,2-Trichloroethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Tetrachloroethene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
2-Hexanone (MBK)	ND	ug/kg	1200	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Dibromochloromethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
1,2-Dibromoethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Chlorobenzene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
Ethylbenzene	740	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH
m&p-Xylene	3,400	ug/kg	1200	EPA 8260B	03/17/18	03/18/18 15:22	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 12:15  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-35			Matrix:	Soil	Lab ID: 18031507-11		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	1,700	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
Styrene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
Bromoform	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
Isopropylbenzene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
1,3-Dichlorobenzene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
1,4-Dichlorobenzene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
1,2-Dichlorobenzene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
Naphthalene	ND	ug/kg	1200	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
tert-Butanol (TBA)	ND	ug/kg	2900	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	2900	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	590	EPA 8260B	03/17/18	03/18/18 15:22	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	2,100	mg/kg	19	EPA 8015C	03/16/18	03/16/18 14:19	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	560	mg/kg	89	EPA 8015C	03/16/18	03/16/18 21:12	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: 03/15/18 13:10  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-36	Matrix:	Soil	Lab ID:	18031507-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/19/18	03/19/18 12:29	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Acetone	ND	ug/kg	62	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Methyl acetate	ND	ug/kg	31	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Methylene chloride	ND	ug/kg	31	EPA 8260B	03/17/18	03/17/18 21:34	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
2-Butanone (MEK)	ND	ug/kg	62	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 21:34	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 13:10  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-36	Matrix:	Soil	Lab ID:	18031507-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Naphthalene	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
tert-Butanol (TBA)	ND	ug/kg	31	EPA 8260B	03/17/18	03/17/18 21:34	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	31	EPA 8260B	03/17/18	03/17/18 21:34	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 21:34	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	62	mg/kg	24	EPA 8015C	03/16/18	03/16/18 14:19	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.25	EPA 8015C	03/16/18	03/16/18 21:35	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: 03/15/18 13:15  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-37	Matrix:	Soil	Lab ID:	18031507-13		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	78	%		SM2540G	03/19/18	03/19/18 12:29	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Chloromethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Vinyl chloride	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Bromomethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Chloroethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Trichlorofluoromethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
1,1-Dichloroethene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Acetone	ND	ug/kg	300	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Carbon disulfide	ND	ug/kg	61	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Methyl acetate	ND	ug/kg	150	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Methylene chloride	ND	ug/kg	150	EPA 8260B	03/17/18	03/18/18 15:53	GFH
trans-1,2-Dichloroethene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
1,1-Dichloroethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
cis-1,2-Dichloroethene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
2-Butanone (MEK)	ND	ug/kg	300	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Chloroform	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
1,1,1-Trichloroethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Cyclohexane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Carbon tetrachloride	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Benzene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
1,2-Dichloroethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Trichloroethene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Methylcyclohexane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
1,2-Dichloropropane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Bromodichloromethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
cis-1,3-Dichloropropene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	61	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Toluene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
trans-1,3-Dichloropropene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
1,1,2-Trichloroethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Tetrachloroethene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
2-Hexanone (MBK)	ND	ug/kg	61	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Dibromochloromethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
1,2-Dibromoethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Chlorobenzene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
Ethylbenzene	65	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH
m&p-Xylene	230	ug/kg	61	EPA 8260B	03/17/18	03/18/18 15:53	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 13:15  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-37			Matrix:	Soil	Lab ID: 18031507-13		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	130	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
Styrene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
Bromoform	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
Isopropylbenzene	34	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
1,3-Dichlorobenzene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
1,4-Dichlorobenzene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
1,2-Dichlorobenzene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
Naphthalene	240	ug/kg	61	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
tert-Butanol (TBA)	ND	ug/kg	150	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	150	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 15:53	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	400	mg/kg	23	EPA 8015C	03/16/18	03/16/18 14:54	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	110	mg/kg	2.3	EPA 8015C	03/16/18	03/16/18 21:58	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: 03/15/18 13:20  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-38	Matrix:	Soil	Lab ID:	18031507-14		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	78	%		SM2540G	03/19/18	03/19/18 12:29	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Acetone	120	ug/kg	63	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Carbon disulfide	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Methyl acetate	ND	ug/kg	31	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Methylene chloride	ND	ug/kg	31	EPA 8260B	03/17/18	03/17/18 22:34	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Methyl t-butyl ether (MTBE)	23	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
2-Butanone (MEK)	100	ug/kg	63	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Benzene	9	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Toluene	19	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
m&p-Xylene	14	ug/kg	13	EPA 8260B	03/17/18	03/17/18 22:34	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 13:20  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-38	Matrix:	Soil	Lab ID:	18031507-14		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	13	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Naphthalene	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
tert-Butanol (TBA)	ND	ug/kg	31	EPA 8260B	03/17/18	03/17/18 22:34	GFH
Diisopropyl ether (DIPE)	44	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	31	EPA 8260B	03/17/18	03/17/18 22:34	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 22:34	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	2,100	mg/kg	23	EPA 8015C	03/16/18	03/16/18 14:54	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	16	mg/kg	2.8	EPA 8015C	03/16/18	03/16/18 22:22	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: 03/15/18 14:15  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-39	Matrix:	Soil	Lab ID:	18031507-15		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	83	%		SM2540G	03/19/18	03/19/18 12:29	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Acetone	ND	ug/kg	64	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Carbon disulfide	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Methyl acetate	ND	ug/kg	32	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Methylene chloride	ND	ug/kg	32	EPA 8260B	03/17/18	03/17/18 23:04	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
2-Butanone (MEK)	ND	ug/kg	64	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
m&p-Xylene	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 23:04	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 14:15  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-39	Matrix:	Soil	Lab ID:	18031507-15		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Naphthalene	ND	ug/kg	13	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
tert-Butanol (TBA)	ND	ug/kg	32	EPA 8260B	03/17/18	03/17/18 23:04	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	32	EPA 8260B	03/17/18	03/17/18 23:04	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:04	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	1,600	mg/kg	24	EPA 8015C	03/16/18	03/16/18 15:29	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	6.3	mg/kg	2.2	EPA 8015C	03/16/18	03/16/18 22:45	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: 03/15/18 14:20  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-40	Matrix:	Soil	Lab ID:	18031507-16		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	83	%		SM2540G	03/19/18	03/19/18 12:29	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Acetone	ND	ug/kg	61	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Methyl acetate	ND	ug/kg	30	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Methylene chloride	ND	ug/kg	30	EPA 8260B	03/17/18	03/17/18 23:34	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
2-Butanone (MEK)	ND	ug/kg	61	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 23:34	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 14:20  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-40			Matrix:	Soil	Lab ID: 18031507-16		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
Styrene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
Bromoform	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
Naphthalene	ND	ug/kg	12	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
tert-Butanol (TBA)	ND	ug/kg	30	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	30	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/17/18	03/17/18 23:34	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/kg	23	EPA 8015C	03/16/18	03/16/18 15:29	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	1.7	mg/kg	0.78	EPA 8015C	03/16/18	03/16/18 23:08	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: 03/15/18 14:30  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-41	Matrix:	Soil	Lab ID:	18031507-17		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	84	%		SM2540G	03/19/18	03/19/18 12:29	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Acetone	ND	ug/kg	60	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Methyl acetate	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Methylene chloride	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 0:04	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Methyl t-butyl ether (MTBE)	19	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
2-Butanone (MEK)	64	ug/kg	60	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Benzene	22	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Toluene	30	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	03/17/18	03/18/18 0:04	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/15/18 14:30  
Date Received: 03/15/18 16:02  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031507

Field Sample ID:	PX-YD-41	Matrix:	Soil	Lab ID:	18031507-17		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Naphthalene	ND	ug/kg	12	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
tert-Butanol (TBA)	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 0:04	GFH
Diisopropyl ether (DIPE)	36	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	30	EPA 8260B	03/17/18	03/18/18 0:04	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/17/18	03/18/18 0:04	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	23	mg/kg	21	EPA 8015C	03/16/18	03/16/18 16:04	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	1.5	mg/kg	0.25	EPA 8015C	03/16/18	03/16/18 23:31	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: Matt Cohen  
QC Chemist





**Chain of Custody Record**

Customer:	CPC
Contact/Report to:	Rob Shenk
Phone:	
Fax:	

E-mail address:	rshenk@colpipe.com
Project Name:	Bel Air Event
Project Number:	
Location:	Bel Air, MD

SDG Number:	18030507
Sampled by:	Eliza Kodgar
PO Number:	

**Analysis Requested**

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Preservative										Sampling Remarks/Comments			
						8260 vols	oxy	GRU 8016B	DRG 8016B										
	PX-YD-35	3/15/18	1215	3	SO	X	X	X											
	PX-YD-36	3/15/18	1310	3	SO	X	X	X											
	PX-YD-37	3/15/18	1315	3	SO	X	X	X											
	PX-YD-38	3/15/18	1320	3	SO	X	X	X											
	PX-YD-39	3/15/18	1415	3	SO	X	X	X											
	PX-YD-40	3/15/18	1420	3	SO	X	X	X											
	PX-YD-41	3/14/18	1430	3	SO														

Relinquished by:	<i>[Signature]</i>	Date/Time:	3/15/18 1602	Deliverables:	I II III CLP EDD	Receipt Temperature:	Temp: <u>5</u> On Ice	Turnaround Time:	STD <u>0</u> Next Day 2-Day Other
Received by:	<i>[Signature]</i>	Date/Time:	3/15/18 1602	Custody Seals:	Sample Cooler	Comments/Special Instructions:			
Relinquished by:		Date/Time:		Delivered by client					
Received by:		Date/Time:							
Relinquished by:		Date/Time:							
Received by:		Date/Time:							



# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20112  
MATRIX: SOIL INSTRUMENT: VOC1  
SAMPLE ID: LCS  
DATE ANALYZED: 3/17/2018 3:32:00 PM  
LAB FILE IDs: 04.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	25	NA	20.7	83	54 - 127
BENZENE	25	NA	21.9	88	69 - 126
CARBON TETRACHLORIDE	25	NA	24.8	99	56 - 135
CHLOROBENZENE	25	NA	22.4	90	67 - 107
CHLOROFORM	25	NA	21.0	84	64 - 128
M&P-XYLENE	50	NA	47.3	94	69 - 113
METHYL T-BUTYL ETHER (MTBE)	25	NA	21.0	84	69 - 139
TETRACHLOROETHENE	25	NA	24.1	96	70 - 104
TOLUENE	25	NA	24.0	96	69 - 118
VINYL CHLORIDE	25	NA	25.8	103	61 - 137

\* - 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:** 20112  
**Batch Date:** 3/17/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Chloromethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Bromomethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Chloroethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Acetone	ND	ug/kg	EPA 8260B	50.0	03/17/18 15:02
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	03/17/18 15:02
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	03/17/18 15:02
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	03/17/18 15:02
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	03/17/18 15:02
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Benzene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,2-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	03/17/18 15:02
TOLUENE	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	03/17/18 15:02
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,2-Dibromoethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20112  
**Batch Date:** 3/17/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	03/17/18 15:02
o-Xylene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Styrene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Bromoform	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,2-Dibromo-3-chloropropane	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
Naphthalene	ND	ug/kg	EPA 8260B	10.0	03/17/18 15:02
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	03/17/18 15:02
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	03/17/18 15:02
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	03/17/18 15:02

Notes/Comments:

LLQ - Lowest Level of Quantitation

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



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 20112

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
PX-YD-25 / 18031507-01	3/17/2018 4:02:00 PM	109	91	102
PX-YD-26 / 18031507-02	3/17/2018 4:32:00 PM	109	92	101
PX-YD-27 / 18031507-03	3/17/2018 5:02:00 PM	80*	95	101
PX-YD-28 / 18031507-04	3/17/2018 5:33:00 PM	99	95	103
PX-YD-29 / 18031507-05	3/17/2018 6:03:00 PM	101	96	101
PX-YD-30 / 18031507-06	3/17/2018 6:33:00 PM	99	96	119
PX-YD-31 / 18031507-07	3/17/2018 7:04:00 PM	101	96	103
PX-YD-32 / 18031507-08	3/17/2018 7:34:00 PM	102	96	102
PX-YD-33 / 18031507-09	3/17/2018 8:04:00 PM	101	97	102
PX-YD-34 / 18031507-10	3/17/2018 8:34:00 PM	100	120	102
PX-YD-35 / 18031507-11	3/18/2018 3:22:00 PM	90	88	99
PX-YD-36 / 18031507-12	3/17/2018 9:34:00 PM	100	95	101
PX-YD-37 / 18031507-13	3/18/2018 3:53:00 PM	107	98	101
PX-YD-38 / 18031507-14	3/17/2018 10:34:00 PM	102	95	102
PX-YD-39 / 18031507-15	3/17/2018 11:04:00 PM	100	95	102
PX-YD-40 / 18031507-16	3/17/2018 11:34:00 PM	99	98	102
PX-YD-41 / 18031507-17	3/18/2018 12:04:00 AM	70*	94	104
	Upper Limit	120	120	120
	Lower Limit	85	85	85

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20110  
MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
SAMPLE ID: LCS  
DATE ANALYZED: 3/16/2018 4:30:00 PM  
LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	5004.5	91	75 - 125

\* - 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:** GRO  
**Matrix:** Soil

**Batch ID:** 20110  
**Batch Date:** 3/16/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	03/16/18 16:54

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: 20110

Sample ID	Date/Time Analyzed	TFT
PX-YD-25 / 18031507-01	3/16/2018 5:17:00 PM	59
PX-YD-26 / 18031507-02	3/16/2018 5:41:00 PM	62
PX-YD-27 / 18031507-03	3/16/2018 6:04:00 PM	67
PX-YD-28 / 18031507-04	3/16/2018 6:28:00 PM	69
PX-YD-29 / 18031507-05	3/16/2018 6:52:00 PM	71
PX-YD-30 / 18031507-06	3/16/2018 7:15:00 PM	59
PX-YD-31 / 18031507-07	3/16/2018 7:38:00 PM	64
PX-YD-32 / 18031507-08	3/16/2018 8:02:00 PM	83
PX-YD-33 / 18031507-09	3/16/2018 8:25:00 PM	65
PX-YD-34 / 18031507-10	3/16/2018 8:49:00 PM	79
PX-YD-35 / 18031507-11	3/16/2018 9:12:00 PM	58
PX-YD-36 / 18031507-12	3/16/2018 9:35:00 PM	60
PX-YD-37 / 18031507-13	3/16/2018 9:58:00 PM	66
PX-YD-38 / 18031507-14	3/16/2018 10:22:00 PM	63
PX-YD-39 / 18031507-15	3/16/2018 10:45:00 PM	60
PX-YD-40 / 18031507-16	3/16/2018 11:08:00 PM	69
PX-YD-41 / 18031507-17	3/16/2018 11:31:00 PM	70

Upper Limit	118
Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20106  
MATRIX: SOIL INSTRUMENT: DRO1  
SAMPLE ID: LCS  
DATE ANALYZED: 3/16/2018 10:51:00 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	502.6	99	84 - 120

\* - 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:** DRO  
**Matrix:** Soil

**Batch ID:** 20106  
**Batch Date:** 3/16/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	03/16/18 10:51

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: 20106

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-YD-25 / 18031507-01	3/16/2018 5:14:00 PM	128*
PX-YD-26 / 18031507-02	3/16/2018 5:14:00 PM	98
PX-YD-27 / 18031507-03	3/16/2018 12:00:00 PM	98
PX-YD-28 / 18031507-04	3/16/2018 12:00:00 PM	97
PX-YD-29 / 18031507-05	3/16/2018 12:34:00 PM	86
PX-YD-30 / 18031507-06	3/16/2018 12:34:00 PM	111
PX-YD-31 / 18031507-07	3/16/2018 1:09:00 PM	106
PX-YD-32 / 18031507-08	3/16/2018 1:09:00 PM	90
PX-YD-33 / 18031507-09	3/16/2018 1:44:00 PM	94
PX-YD-34 / 18031507-10	3/16/2018 1:44:00 PM	91
PX-YD-35 / 18031507-11	3/16/2018 2:19:00 PM	126
PX-YD-36 / 18031507-12	3/16/2018 2:19:00 PM	92
PX-YD-37 / 18031507-13	3/16/2018 2:54:00 PM	105
PX-YD-38 / 18031507-14	3/16/2018 2:54:00 PM	102
PX-YD-39 / 18031507-15	3/16/2018 3:29:00 PM	87
PX-YD-40 / 18031507-16	3/16/2018 3:29:00 PM	101
PX-YD-41 / 18031507-17	3/16/2018 4:04:00 PM	80

Upper Limit	126
Lower Limit	46

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:00  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-01	Matrix:	Soil	Lab ID:	18031904-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	86	%		SM2540G	03/20/18	03/22/18 12:02	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Chloromethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Vinyl chloride	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Bromomethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Chloroethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Trichlorofluoromethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
1,1-Dichloroethene	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Acetone	ND	ug/kg	58000	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Carbon disulfide	ND	ug/kg	12000	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Methyl acetate	ND	ug/kg	29000	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Methylene chloride	ND	ug/kg	29000	EPA 8260B	03/22/18	03/22/18 6:10	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
1,1-Dichloroethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
2-Butanone (MEK)	ND	ug/kg	58000	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Chloroform	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
1,1,1-Trichloroethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Cyclohexane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Carbon tetrachloride	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Benzene	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
1,2-Dichloroethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Trichloroethene	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Methylcyclohexane	10,000	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
1,2-Dichloropropane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Bromodichloromethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12000	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Toluene	9,100	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
1,1,2-Trichloroethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Tetrachloroethene	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
2-Hexanone (MBK)	ND	ug/kg	12000	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Dibromochloromethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
1,2-Dibromoethane	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Chlorobenzene	ND	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
Ethylbenzene	9,300	ug/kg	5800	EPA 8260B	03/22/18	03/22/18 6:10	GFH
m&p-Xylene	38,000	ug/kg	12000	EPA 8260B	03/22/18	03/22/18 6:10	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:10  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-02	Matrix:	Soil	Lab ID:	18031904-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	80	%		SM2540G	03/20/18	03/22/18 12:02	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Chloromethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Vinyl chloride	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Bromomethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Chloroethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Trichlorofluoromethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,1-Dichloroethene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Acetone	ND	ug/kg	7000	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Carbon disulfide	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Methyl acetate	ND	ug/kg	3500	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Methylene chloride	ND	ug/kg	3500	EPA 8260B	03/22/18	03/22/18 6:40	GFH
trans-1,2-Dichloroethene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,1-Dichloroethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
cis-1,2-Dichloroethene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
2-Butanone (MEK)	ND	ug/kg	7000	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Chloroform	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,1,1-Trichloroethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Cyclohexane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Carbon tetrachloride	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Benzene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,2-Dichloroethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Trichloroethene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Methylcyclohexane	1,100	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,2-Dichloropropane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Bromodichloromethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
cis-1,3-Dichloropropene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Toluene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
trans-1,3-Dichloropropene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,1,2-Trichloroethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Tetrachloroethene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
2-Hexanone (MBK)	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Dibromochloromethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,2-Dibromoethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Chlorobenzene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Ethylbenzene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
m&p-Xylene	5,700	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 6:40	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:10  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-02		Matrix:	Soil	Lab ID: 18031904-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	8,600	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Styrene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Bromoform	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Isopropylbenzene	1,000	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,3-Dichlorobenzene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,4-Dichlorobenzene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,2-Dichlorobenzene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Naphthalene	2,300	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
tert-Butanol (TBA)	ND	ug/kg	3500	EPA 8260B	03/22/18	03/22/18 6:40	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	3500	EPA 8260B	03/22/18	03/22/18 6:40	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	700	EPA 8260B	03/22/18	03/22/18 6:40	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	17,000	mg/kg	240	EPA 8015C	03/20/18	03/20/18 18:36	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	2,800	mg/kg	28	EPA 8015C	03/20/18	03/20/18 18:06	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: *Matt Cohen*  
QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:30  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-03	Matrix:	Soil	Lab ID:	18031904-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	88	%		SM2540G	03/20/18	03/22/18 12:02	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Chloromethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Vinyl chloride	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Bromomethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Chloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Trichlorofluoromethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,1-Dichloroethene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Acetone	ND	ug/kg	17000	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Carbon disulfide	ND	ug/kg	2200	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Methyl acetate	ND	ug/kg	5600	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Methylene chloride	ND	ug/kg	5600	EPA 8260B	03/22/18	03/22/18 7:10	GFH
trans-1,2-Dichloroethene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,1-Dichloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
cis-1,2-Dichloroethene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
2-Butanone (MEK)	ND	ug/kg	11000	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Chloroform	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,1,1-Trichloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Cyclohexane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Carbon tetrachloride	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Benzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,2-Dichloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Trichloroethene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Methylcyclohexane	4,200	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,2-Dichloropropane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Bromodichloromethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
cis-1,3-Dichloropropene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	2200	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Toluene	3,200	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
trans-1,3-Dichloropropene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,1,2-Trichloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Tetrachloroethene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
2-Hexanone (MBK)	ND	ug/kg	2200	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Dibromochloromethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,2-Dibromoethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Chlorobenzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Ethylbenzene	4,600	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
m&p-Xylene	23,000	ug/kg	2200	EPA 8260B	03/22/18	03/22/18 7:10	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:30  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-03	Matrix:	Soil	Lab ID:	18031904-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	16,000	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Styrene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Bromoform	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Isopropylbenzene	4,300	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,3-Dichlorobenzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,4-Dichlorobenzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,2-Dichlorobenzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Naphthalene	3,500	ug/kg	2200	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
tert-Butanol (TBA)	ND	ug/kg	5600	EPA 8260B	03/22/18	03/22/18 7:10	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	5600	EPA 8260B	03/22/18	03/22/18 7:10	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 7:10	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	14,000	mg/kg	240	EPA 8015C	03/20/18	03/20/18 19:11	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	5,700	mg/kg	45	EPA 8015C	03/20/18	03/20/18 18:30	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: Matt Cohen  
QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:35  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-04	Matrix:	Soil	Lab ID:	18031904-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	72	%		SM2540G	03/20/18	03/22/18 12:02	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Chloromethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Vinyl chloride	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Bromomethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Chloroethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Trichlorofluoromethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,1-Dichloroethene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Acetone	ND	ug/kg	14000	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Carbon disulfide	ND	ug/kg	2800	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Methyl acetate	ND	ug/kg	7100	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Methylene chloride	ND	ug/kg	7100	EPA 8260B	03/22/18	03/22/18 7:40	GFH
trans-1,2-Dichloroethene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,1-Dichloroethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
cis-1,2-Dichloroethene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
2-Butanone (MEK)	ND	ug/kg	14000	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Chloroform	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,1,1-Trichloroethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Cyclohexane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Carbon tetrachloride	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Benzene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,2-Dichloroethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Trichloroethene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Methylcyclohexane	20,000	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,2-Dichloropropane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Bromodichloromethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
cis-1,3-Dichloropropene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	2800	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Toluene	25,000	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
trans-1,3-Dichloropropene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,1,2-Trichloroethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Tetrachloroethene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
2-Hexanone (MBK)	ND	ug/kg	2800	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Dibromochloromethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,2-Dibromoethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Chlorobenzene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Ethylbenzene	16,000	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
m&p-Xylene	51,000	ug/kg	2800	EPA 8260B	03/22/18	03/22/18 7:40	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:35  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-04		Matrix:	Soil	Lab ID: 18031904-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	39,000	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Styrene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Bromoform	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Isopropylbenzene	7,400	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,3-Dichlorobenzene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,4-Dichlorobenzene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,2-Dichlorobenzene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Naphthalene	6,300	ug/kg	2800	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
tert-Butanol (TBA)	ND	ug/kg	7100	EPA 8260B	03/22/18	03/22/18 7:40	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	7100	EPA 8260B	03/22/18	03/22/18 7:40	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 7:40	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	17,000	mg/kg	300	EPA 8015C	03/20/18	03/20/18 19:11	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	7,400	mg/kg	57	EPA 8015C	03/20/18	03/20/18 18:53	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: 03/19/18 13:38  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-05	Matrix:	Soil	Lab ID:	18031904-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	90	%		SM2540G	03/20/18	03/22/18 12:02	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Chloromethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Vinyl chloride	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Bromomethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Chloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Trichlorofluoromethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,1-Dichloroethene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Acetone	ND	ug/kg	11000	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Carbon disulfide	ND	ug/kg	2200	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Methyl acetate	ND	ug/kg	5500	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Methylene chloride	ND	ug/kg	5500	EPA 8260B	03/22/18	03/22/18 8:09	GFH
trans-1,2-Dichloroethene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,1-Dichloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
cis-1,2-Dichloroethene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
2-Butanone (MEK)	ND	ug/kg	11000	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Chloroform	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,1,1-Trichloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Cyclohexane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Carbon tetrachloride	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Benzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,2-Dichloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Trichloroethene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Methylcyclohexane	7,300	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,2-Dichloropropane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Bromodichloromethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
cis-1,3-Dichloropropene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	2200	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Toluene	5,200	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
trans-1,3-Dichloropropene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,1,2-Trichloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Tetrachloroethene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
2-Hexanone (MBK)	ND	ug/kg	2200	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Dibromochloromethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,2-Dibromoethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Chlorobenzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Ethylbenzene	7,300	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
m&p-Xylene	36,000	ug/kg	2200	EPA 8260B	03/22/18	03/22/18 8:09	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:38  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-05		Matrix:	Soil	Lab ID: 18031904-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	20,000	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Styrene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Bromoform	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Isopropylbenzene	5,600	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,3-Dichlorobenzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,4-Dichlorobenzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,2-Dichlorobenzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Naphthalene	3,900	ug/kg	2200	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
tert-Butanol (TBA)	ND	ug/kg	5500	EPA 8260B	03/22/18	03/22/18 8:09	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	5500	EPA 8260B	03/22/18	03/22/18 8:09	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	1100	EPA 8260B	03/22/18	03/22/18 8:09	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	8,700	mg/kg	200	EPA 8015C	03/20/18	03/20/18 19:46	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	5,900	mg/kg	44	EPA 8015C	03/20/18	03/20/18 19:17	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: 03/19/18 13:40  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-06	Matrix:	Soil	Lab ID:	18031904-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/20/18	03/22/18 12:02	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Chloromethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Vinyl chloride	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Bromomethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Chloroethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Trichlorofluoromethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,1-Dichloroethene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Acetone	ND	ug/kg	590	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Carbon disulfide	ND	ug/kg	120	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Methyl acetate	ND	ug/kg	290	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Methylene chloride	ND	ug/kg	290	EPA 8260B	03/22/18	03/22/18 8:39	GFH
trans-1,2-Dichloroethene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,1-Dichloroethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
cis-1,2-Dichloroethene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
2-Butanone (MEK)	ND	ug/kg	590	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Chloroform	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,1,1-Trichloroethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Cyclohexane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Carbon tetrachloride	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Benzene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,2-Dichloroethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Trichloroethene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Methylcyclohexane	230	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,2-Dichloropropane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Bromodichloromethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
cis-1,3-Dichloropropene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	120	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Toluene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
trans-1,3-Dichloropropene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,1,2-Trichloroethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Tetrachloroethene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
2-Hexanone (MBK)	ND	ug/kg	120	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Dibromochloromethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,2-Dibromoethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Chlorobenzene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Ethylbenzene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
m&p-Xylene	190	ug/kg	120	EPA 8260B	03/22/18	03/22/18 8:39	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:40  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-06		Matrix:	Soil	Lab ID: 18031904-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	2,800	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Styrene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Bromoform	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Isopropylbenzene	64	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,3-Dichlorobenzene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,4-Dichlorobenzene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,2-Dichlorobenzene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Naphthalene	ND	ug/kg	120	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
tert-Butanol (TBA)	ND	ug/kg	290	EPA 8260B	03/22/18	03/22/18 8:39	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	290	EPA 8260B	03/22/18	03/22/18 8:39	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	59	EPA 8260B	03/22/18	03/22/18 8:39	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	21,000	mg/kg	230	EPA 8015C	03/20/18	03/20/18 19:46	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	330	mg/kg	2.5	EPA 8015C	03/20/18	03/20/18 19:41	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: 03/19/18 13:45  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-07	Matrix:	Soil	Lab ID:	18031904-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	74	%		SM2540G	03/20/18	03/22/18 12:02	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Chloromethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Vinyl chloride	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Bromomethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Chloroethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Trichlorofluoromethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,1-Dichloroethene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Acetone	ND	ug/kg	650	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Carbon disulfide	ND	ug/kg	130	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Methyl acetate	ND	ug/kg	330	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Methylene chloride	ND	ug/kg	330	EPA 8260B	03/22/18	03/22/18 9:10	GFH
trans-1,2-Dichloroethene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,1-Dichloroethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
cis-1,2-Dichloroethene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
2-Butanone (MEK)	ND	ug/kg	650	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Chloroform	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,1,1-Trichloroethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Cyclohexane	85	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Carbon tetrachloride	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Benzene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,2-Dichloroethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Trichloroethene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Methylcyclohexane	710	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,2-Dichloropropane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Bromodichloromethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
cis-1,3-Dichloropropene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	130	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Toluene	74	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
trans-1,3-Dichloropropene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,1,2-Trichloroethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Tetrachloroethene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
2-Hexanone (MBK)	ND	ug/kg	130	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Dibromochloromethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,2-Dibromoethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Chlorobenzene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Ethylbenzene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
m&p-Xylene	340	ug/kg	130	EPA 8260B	03/22/18	03/22/18 9:10	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:45  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-07	Matrix:	Soil	Lab ID:	18031904-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	3,300	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Styrene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Bromoform	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Isopropylbenzene	120	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,3-Dichlorobenzene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,4-Dichlorobenzene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,2-Dichlorobenzene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Naphthalene	ND	ug/kg	130	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
tert-Butanol (TBA)	ND	ug/kg	330	EPA 8260B	03/22/18	03/22/18 9:10	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	330	EPA 8260B	03/22/18	03/22/18 9:10	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	65	EPA 8260B	03/22/18	03/22/18 9:10	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	18,000	mg/kg	250	EPA 8015C	03/20/18	03/20/18 20:21	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	4,000	mg/kg	34	EPA 8015C	03/21/18	03/21/18 18:27	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: Matt Cohen  
QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:50  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-08	Matrix:	Soil	Lab ID:	18031904-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	73	%		SM2540G	03/20/18	03/22/18 12:02	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Chloromethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Vinyl chloride	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Bromomethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Chloroethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Trichlorofluoromethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,1-Dichloroethene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Acetone	ND	ug/kg	8900	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Carbon disulfide	ND	ug/kg	1800	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Methyl acetate	ND	ug/kg	4500	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Methylene chloride	ND	ug/kg	4500	EPA 8260B	03/22/18	03/22/18 10:08	GFH
trans-1,2-Dichloroethene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,1-Dichloroethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
cis-1,2-Dichloroethene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
2-Butanone (MEK)	ND	ug/kg	8900	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Chloroform	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,1,1-Trichloroethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Cyclohexane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Carbon tetrachloride	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Benzene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,2-Dichloroethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Trichloroethene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Methylcyclohexane	4,000	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,2-Dichloropropane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Bromodichloromethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
cis-1,3-Dichloropropene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1800	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Toluene	2,200	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
trans-1,3-Dichloropropene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,1,2-Trichloroethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Tetrachloroethene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
2-Hexanone (MBK)	ND	ug/kg	1800	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Dibromochloromethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,2-Dibromoethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Chlorobenzene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Ethylbenzene	3,500	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
m&p-Xylene	25,000	ug/kg	1800	EPA 8260B	03/22/18	03/22/18 10:08	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:50  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-08		Matrix:	Soil	Lab ID: 18031904-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	17,000	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Styrene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Bromoform	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Isopropylbenzene	4,300	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,3-Dichlorobenzene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,4-Dichlorobenzene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,2-Dichlorobenzene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Naphthalene	3,300	ug/kg	1800	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
tert-Butanol (TBA)	ND	ug/kg	4500	EPA 8260B	03/22/18	03/22/18 10:08	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	4500	EPA 8260B	03/22/18	03/22/18 10:08	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	890	EPA 8260B	03/22/18	03/22/18 10:08	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	10,000	mg/kg	280	EPA 8015C	03/20/18	03/20/18 20:21	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	3,200	mg/kg	360	EPA 8015C	03/21/18	03/21/18 18:03	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: 03/19/18 13:55  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-09 (0-0.5)		Matrix:	Soil	Lab ID: 18031904-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	80	%		SM2540G	03/20/18	03/22/18 12:02	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Acetone	ND	ug/kg	63	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Carbon disulfide	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Methyl acetate	ND	ug/kg	32	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Methylene chloride	ND	ug/kg	32	EPA 8260B	03/21/18	03/21/18 19:14	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
2-Butanone (MEK)	ND	ug/kg	63	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH
m&p-Xylene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 19:14	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 13:55  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-09 (0-0.5)			Matrix:	Soil	Lab ID: 18031904-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
Styrene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
Bromoform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
Naphthalene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
tert-Butanol (TBA)	ND	ug/kg	32	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	32	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:14	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	95	mg/kg	22	EPA 8015C	03/20/18	03/20/18 14:26	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/kg	0.25	EPA 8015C	03/21/18	03/21/18 16:52	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: 03/19/18 14:00  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-09 (0.5-1)	Matrix:	Soil	Lab ID:	18031904-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/20/18	03/22/18 12:03	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Acetone	ND	ug/kg	59	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Methyl acetate	ND	ug/kg	30	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Methylene chloride	ND	ug/kg	30	EPA 8260B	03/21/18	03/21/18 19:44	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
2-Butanone (MEK)	ND	ug/kg	59	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 19:44	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 14:00  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-09 (0.5-1)	Matrix:	Soil	Lab ID:	18031904-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Naphthalene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
tert-Butanol (TBA)	ND	ug/kg	30	EPA 8260B	03/21/18	03/21/18 19:44	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	30	EPA 8260B	03/21/18	03/21/18 19:44	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 19:44	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	44	mg/kg	12	EPA 8015C	03/20/18	03/20/18 14:26	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.24	EPA 8015C	03/20/18	03/20/18 21:15	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: 03/19/18 14:05  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-10 (0-0.5)		Matrix:	Soil	Lab ID: 18031904-11		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	50	%		SM2540G	03/20/18	03/22/18 12:03	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Chloromethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Vinyl chloride	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Bromomethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Chloroethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Trichlorofluoromethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
1,1-Dichloroethene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Acetone	ND	ug/kg	130	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Carbon disulfide	ND	ug/kg	27	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Methyl acetate	ND	ug/kg	67	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Methylene chloride	ND	ug/kg	67	EPA 8260B	03/21/18	03/21/18 20:14	GFH
trans-1,2-Dichloroethene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
1,1-Dichloroethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
cis-1,2-Dichloroethene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
2-Butanone (MEK)	ND	ug/kg	130	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Chloroform	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
1,1,1-Trichloroethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Cyclohexane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Carbon tetrachloride	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Benzene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
1,2-Dichloroethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Trichloroethene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Methylcyclohexane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
1,2-Dichloropropane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Bromodichloromethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
cis-1,3-Dichloropropene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	27	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Toluene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
trans-1,3-Dichloropropene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
1,1,2-Trichloroethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Tetrachloroethene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
2-Hexanone (MBK)	ND	ug/kg	27	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Dibromochloromethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
1,2-Dibromoethane	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Chlorobenzene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
Ethylbenzene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 20:14	GFH
m&p-Xylene	ND	ug/kg	27	EPA 8260B	03/21/18	03/21/18 20:14	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 14:10  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-10 (0.5-1)		Matrix:	Soil	Lab ID: 18031904-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	52	%		SM2540G	03/20/18	03/22/18 12:03	AC
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Chloromethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Vinyl chloride	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Bromomethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Chloroethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Trichlorofluoromethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
1,1-Dichloroethene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Acetone	ND	ug/kg	120	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Carbon disulfide	ND	ug/kg	24	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Methyl acetate	ND	ug/kg	60	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Methylene chloride	ND	ug/kg	60	EPA 8260B	03/21/18	03/21/18 20:44	GFH
trans-1,2-Dichloroethene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
1,1-Dichloroethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
cis-1,2-Dichloroethene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
2-Butanone (MEK)	ND	ug/kg	120	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Chloroform	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
1,1,1-Trichloroethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Cyclohexane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Carbon tetrachloride	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Benzene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
1,2-Dichloroethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Trichloroethene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Methylcyclohexane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
1,2-Dichloropropane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Bromodichloromethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
cis-1,3-Dichloropropene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	24	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Toluene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
trans-1,3-Dichloropropene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
1,1,2-Trichloroethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Tetrachloroethene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
2-Hexanone (MBK)	ND	ug/kg	24	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Dibromochloromethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
1,2-Dibromoethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Chlorobenzene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
Ethylbenzene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH
m&p-Xylene	ND	ug/kg	24	EPA 8260B	03/21/18	03/21/18 20:44	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 14:10  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-OS-10 (0.5-1)			Matrix:	Soil	Lab ID: 18031904-12		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
Styrene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
Bromoform	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
Isopropylbenzene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
1,3-Dichlorobenzene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
1,4-Dichlorobenzene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
1,2-Dichlorobenzene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
Naphthalene	ND	ug/kg	24	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
tert-Butanol (TBA)	ND	ug/kg	60	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	60	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 20:44	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	250	mg/kg	38	EPA 8015C	03/20/18	03/20/18 15:05	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/kg	0.34	EPA 8015C	03/20/18	03/20/18 22:01	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: 03/19/18 14:38  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-01	Matrix:	Soil	Lab ID:	18031904-13		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	81	%		SM2540G	03/20/18	03/22/18 12:03	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Acetone	ND	ug/kg	51	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Methyl acetate	ND	ug/kg	26	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Methylene chloride	ND	ug/kg	26	EPA 8260B	03/21/18	03/21/18 21:14	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
2-Butanone (MEK)	ND	ug/kg	51	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Benzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Toluene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Ethylbenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
m&p-Xylene	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 21:14	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 14:38  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-01	Matrix:	Soil	Lab ID:	18031904-13		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Styrene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Bromoform	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Naphthalene	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
tert-Butanol (TBA)	ND	ug/kg	26	EPA 8260B	03/21/18	03/21/18 21:14	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	26	EPA 8260B	03/21/18	03/21/18 21:14	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:14	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	230	mg/kg	20	EPA 8015C	03/20/18	03/20/18 15:39	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.21	EPA 8015C	03/20/18	03/20/18 22:25	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: 03/19/18 14:45  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-02	Matrix:	Soil	Lab ID:	18031904-14		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	83	%		SM2540G	03/20/18	03/22/18 12:03	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Acetone	ND	ug/kg	48	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Methyl acetate	ND	ug/kg	24	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Methylene chloride	ND	ug/kg	24	EPA 8260B	03/21/18	03/21/18 21:44	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
2-Butanone (MEK)	ND	ug/kg	48	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Benzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Toluene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
Ethylbenzene	6	ug/kg	5	EPA 8260B	03/21/18	03/21/18 21:44	GFH
m&p-Xylene	24	ug/kg	10	EPA 8260B	03/21/18	03/21/18 21:44	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 14:55  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-03	Matrix:	Soil	Lab ID:	18031904-15		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	81	%		SM2540G	03/20/18	03/22/18 12:03	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Acetone	ND	ug/kg	50	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Methyl acetate	ND	ug/kg	25	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Methylene chloride	ND	ug/kg	25	EPA 8260B	03/21/18	03/21/18 22:14	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Methyl t-butyl ether (MTBE)	29	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
2-Butanone (MEK)	ND	ug/kg	50	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Benzene	230	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Toluene	280	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Ethylbenzene	24	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
m&p-Xylene	18	ug/kg	10	EPA 8260B	03/21/18	03/21/18 22:14	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 14:55  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-03	Matrix:	Soil	Lab ID:	18031904-15		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	40	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Styrene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Bromoform	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Naphthalene	ND	ug/kg	10	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
tert-Butanol (TBA)	ND	ug/kg	25	EPA 8260B	03/21/18	03/21/18 22:14	GFH
Diisopropyl ether (DIPE)	150	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	25	EPA 8260B	03/21/18	03/21/18 22:14	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 22:14	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	140	mg/kg	22	EPA 8015C	03/20/18	03/20/18 16:14	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	0.33	mg/kg	0.27	EPA 8015C	03/20/18	03/20/18 23:35	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: 03/19/18 15:02  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-04	Matrix:	Soil	Lab ID:	18031904-16		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/20/18	03/22/18 12:03	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Acetone	ND	ug/kg	57	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Methyl acetate	ND	ug/kg	29	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Methylene chloride	ND	ug/kg	29	EPA 8260B	03/21/18	03/21/18 22:44	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
2-Butanone (MEK)	ND	ug/kg	57	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 22:44	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:02  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-04	Matrix:	Soil	Lab ID:	18031904-16		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Naphthalene	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
tert-Butanol (TBA)	ND	ug/kg	29	EPA 8260B	03/21/18	03/21/18 22:44	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	29	EPA 8260B	03/21/18	03/21/18 22:44	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 22:44	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	140	mg/kg	19	EPA 8015C	03/20/18	03/20/18 16:14	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.27	EPA 8015C	03/20/18	03/20/18 23:58	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: 03/19/18 15:05  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-05	Matrix:	Soil	Lab ID:	18031904-17		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	78	%		SM2540G	03/20/18	03/22/18 12:03	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Acetone	180	ug/kg	58	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Methyl acetate	ND	ug/kg	29	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Methylene chloride	ND	ug/kg	29	EPA 8260B	03/21/18	03/21/18 23:13	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Methyl t-butyl ether (MTBE)	23	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
2-Butanone (MEK)	180	ug/kg	58	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Benzene	71	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Toluene	18	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:13	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 23:13	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:10  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-06	Matrix:	Soil	Lab ID:	18031904-18		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	77	%		SM2540G	03/20/18	03/22/18 12:03	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Acetone	ND	ug/kg	58	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Methyl acetate	ND	ug/kg	29	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Methylene chloride	ND	ug/kg	29	EPA 8260B	03/21/18	03/21/18 23:43	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Methyl t-butyl ether (MTBE)	73	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
2-Butanone (MEK)	65	ug/kg	58	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Cyclohexane	9	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Benzene	130	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Methylcyclohexane	7	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Toluene	29	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
m&p-Xylene	23	ug/kg	12	EPA 8260B	03/21/18	03/21/18 23:43	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:10  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-06	Matrix:	Soil	Lab ID:	18031904-18		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	13	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Naphthalene	ND	ug/kg	12	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
tert-Butanol (TBA)	ND	ug/kg	29	EPA 8260B	03/21/18	03/21/18 23:43	GFH
Diisopropyl ether (DIPE)	180	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	29	EPA 8260B	03/21/18	03/21/18 23:43	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 23:43	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	69	mg/kg	22	EPA 8015C	03/20/18	03/20/18 16:49	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.28	EPA 8015C	03/21/18	03/21/18 0:45	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: 03/19/18 15:18  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-07	Matrix:	Soil	Lab ID:	18031904-19		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	78	%		SM2540G	03/20/18	03/22/18 12:03	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Acetone	160	ug/kg	52	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Methyl acetate	ND	ug/kg	26	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Methylene chloride	ND	ug/kg	26	EPA 8260B	03/22/18	03/22/18 0:13	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
2-Butanone (MEK)	56	ug/kg	52	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Cyclohexane	9	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Benzene	40	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Methylcyclohexane	11	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Toluene	7	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Ethylbenzene	23	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
m&p-Xylene	46	ug/kg	10	EPA 8260B	03/22/18	03/22/18 0:13	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:18  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-07	Matrix:	Soil	Lab ID:	18031904-19		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	6	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Styrene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Bromoform	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Naphthalene	18	ug/kg	10	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
tert-Butanol (TBA)	ND	ug/kg	26	EPA 8260B	03/22/18	03/22/18 0:13	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	26	EPA 8260B	03/22/18	03/22/18 0:13	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 0:13	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	160	mg/kg	24	EPA 8015C	03/20/18	03/20/18 17:24	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	0.83	mg/kg	0.27	EPA 8015C	03/21/18	03/21/18 1:08	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: 03/19/18 15:22  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-08	Matrix:	Soil	Lab ID:	18031904-20		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	90	%		SM2540G	03/20/18	03/22/18 12:03	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Chloromethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Vinyl chloride	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Bromomethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Chloroethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Trichlorofluoromethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
1,1-Dichloroethene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Acetone	ND	ug/kg	510	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Carbon disulfide	ND	ug/kg	100	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Methyl acetate	ND	ug/kg	250	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Methylene chloride	ND	ug/kg	250	EPA 8260B	03/22/18	03/22/18 5:11	GFH
trans-1,2-Dichloroethene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
1,1-Dichloroethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
cis-1,2-Dichloroethene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
2-Butanone (MEK)	ND	ug/kg	510	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Chloroform	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
1,1,1-Trichloroethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Cyclohexane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Carbon tetrachloride	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Benzene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
1,2-Dichloroethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Trichloroethene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Methylcyclohexane	210	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
1,2-Dichloropropane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Bromodichloromethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
cis-1,3-Dichloropropene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	100	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Toluene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
trans-1,3-Dichloropropene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
1,1,2-Trichloroethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Tetrachloroethene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
2-Hexanone (MBK)	ND	ug/kg	100	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Dibromochloromethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
1,2-Dibromoethane	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Chlorobenzene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
Ethylbenzene	ND	ug/kg	51	EPA 8260B	03/22/18	03/22/18 5:11	GFH
m&p-Xylene	ND	ug/kg	100	EPA 8260B	03/22/18	03/22/18 5:11	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:26  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-09	Matrix:	Soil	Lab ID:	18031904-21		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	91	%		SM2540G	03/20/18	03/22/18 12:03	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Chloromethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Vinyl chloride	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Bromomethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Chloroethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Trichlorofluoromethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,1-Dichloroethene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Acetone	ND	ug/kg	7200	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Carbon disulfide	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Methyl acetate	ND	ug/kg	3600	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Methylene chloride	ND	ug/kg	3600	EPA 8260B	03/22/18	03/22/18 5:41	GFH
trans-1,2-Dichloroethene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,1-Dichloroethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
cis-1,2-Dichloroethene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
2-Butanone (MEK)	ND	ug/kg	7200	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Chloroform	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,1,1-Trichloroethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Cyclohexane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Carbon tetrachloride	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Benzene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,2-Dichloroethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Trichloroethene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Methylcyclohexane	2,400	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,2-Dichloropropane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Bromodichloromethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
cis-1,3-Dichloropropene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Toluene	1,600	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
trans-1,3-Dichloropropene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,1,2-Trichloroethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Tetrachloroethene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
2-Hexanone (MBK)	ND	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Dibromochloromethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,2-Dibromoethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Chlorobenzene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Ethylbenzene	2,900	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
m&p-Xylene	17,000	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 5:41	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:26  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-09		Matrix:	Soil	Lab ID: 18031904-21		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	9,900	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Styrene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Bromoform	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Isopropylbenzene	2,700	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,3-Dichlorobenzene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,4-Dichlorobenzene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,2-Dichlorobenzene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Naphthalene	2,600	ug/kg	1400	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
tert-Butanol (TBA)	ND	ug/kg	3600	EPA 8260B	03/22/18	03/22/18 5:41	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	3600	EPA 8260B	03/22/18	03/22/18 5:41	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	720	EPA 8260B	03/22/18	03/22/18 5:41	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	13,000	mg/kg	240	EPA 8015C	03/20/18	03/22/18 8:20	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	2,700	mg/kg	290	EPA 8015C	03/21/18	03/21/18 18:51	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: 03/19/18 15:32  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-10	Matrix:	Soil	Lab ID:	18031904-22		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	78	%		SM2540G	03/20/18	03/22/18 12:03	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Acetone	ND	ug/kg	56	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Methyl acetate	ND	ug/kg	28	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Methylene chloride	ND	ug/kg	28	EPA 8260B	03/22/18	03/22/18 0:43	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
2-Butanone (MEK)	ND	ug/kg	56	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	03/22/18	03/22/18 0:43	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:32  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-10	Matrix:	Soil	Lab ID:	18031904-22		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Naphthalene	ND	ug/kg	11	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
tert-Butanol (TBA)	ND	ug/kg	28	EPA 8260B	03/22/18	03/22/18 0:43	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	28	EPA 8260B	03/22/18	03/22/18 0:43	GFH
tert-Amyl ethyl ether (TAEI)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 0:43	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	81	mg/kg	27	EPA 8015C	03/20/18	03/20/18 22:40	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.25	EPA 8015C	03/21/18	03/21/18 17:16	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: 03/19/18 15:38  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-11	Matrix:	Soil	Lab ID:	18031904-23		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	83	%		SM2540G	03/20/18	03/22/18 12:04	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Acetone	ND	ug/kg	47	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Carbon disulfide	ND	ug/kg	9	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Methyl acetate	ND	ug/kg	23	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Methylene chloride	ND	ug/kg	23	EPA 8260B	03/22/18	03/22/18 1:12	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
2-Butanone (MEK)	ND	ug/kg	47	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Cyclohexane	14	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Benzene	18	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Methylcyclohexane	90	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	9	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Toluene	110	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
2-Hexanone (MBK)	ND	ug/kg	9	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
Ethylbenzene	80	ug/kg	5	EPA 8260B	03/22/18	03/22/18 1:12	GFH
m&p-Xylene	370	ug/kg	9	EPA 8260B	03/22/18	03/22/18 1:12	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:42  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-12	Matrix:	Soil	Lab ID:	18031904-24		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	78	%		SM2540G	03/20/18	03/22/18 12:04	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Chloromethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Vinyl chloride	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Bromomethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Chloroethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Trichlorofluoromethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,1-Dichloroethene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Acetone	ND	ug/kg	77	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Carbon disulfide	ND	ug/kg	15	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Methyl acetate	ND	ug/kg	39	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Methylene chloride	ND	ug/kg	39	EPA 8260B	03/22/18	03/22/18 3:11	GFH
trans-1,2-Dichloroethene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,1-Dichloroethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
cis-1,2-Dichloroethene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
2-Butanone (MEK)	ND	ug/kg	77	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Chloroform	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,1,1-Trichloroethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Cyclohexane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Carbon tetrachloride	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Benzene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,2-Dichloroethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Trichloroethene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Methylcyclohexane	23	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,2-Dichloropropane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Bromodichloromethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
cis-1,3-Dichloropropene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	15	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Toluene	17	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
trans-1,3-Dichloropropene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,1,2-Trichloroethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Tetrachloroethene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
2-Hexanone (MBK)	ND	ug/kg	15	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Dibromochloromethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,2-Dibromoethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Chlorobenzene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Ethylbenzene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
m&p-Xylene	350	ug/kg	15	EPA 8260B	03/22/18	03/22/18 3:11	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:42  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-12	Matrix:	Soil	Lab ID:	18031904-24		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	200	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Styrene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Bromoform	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Isopropylbenzene	15	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,3-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,4-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,2-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Naphthalene	22	ug/kg	15	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
tert-Butanol (TBA)	ND	ug/kg	39	EPA 8260B	03/22/18	03/22/18 3:11	GFH
Diisopropyl ether (DIPE)	10	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	39	EPA 8260B	03/22/18	03/22/18 3:11	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	8	EPA 8260B	03/22/18	03/22/18 3:11	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	1,400	mg/kg	23	EPA 8015C	03/20/18	03/20/18 23:14	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	26	mg/kg	0.31	EPA 8015C	03/21/18	03/21/18 3:05	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: 03/19/18 15:47  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-13	Matrix:	Soil	Lab ID:	18031904-25		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	77	%		SM2540G	03/20/18	03/22/18 12:04	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Acetone	ND	ug/kg	63	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Carbon disulfide	ND	ug/kg	13	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Methyl acetate	ND	ug/kg	32	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Methylene chloride	ND	ug/kg	32	EPA 8260B	03/22/18	03/22/18 2:12	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
2-Butanone (MEK)	ND	ug/kg	63	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:12	GFH
m&p-Xylene	ND	ug/kg	13	EPA 8260B	03/22/18	03/22/18 2:12	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:50  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-14	Matrix:	Soil	Lab ID:	18031904-26		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	87	%		SM2540G	03/20/18	03/22/18 12:04	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Chloromethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Vinyl chloride	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Bromomethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Chloroethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Trichlorofluoromethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
1,1-Dichloroethene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Acetone	ND	ug/kg	6700	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Carbon disulfide	ND	ug/kg	1300	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Methyl acetate	ND	ug/kg	3300	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Methylene chloride	ND	ug/kg	3300	EPA 8260B	03/22/18	03/22/18 4:41	GFH
trans-1,2-Dichloroethene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
1,1-Dichloroethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
cis-1,2-Dichloroethene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
2-Butanone (MEK)	ND	ug/kg	6700	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Chloroform	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
1,1,1-Trichloroethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Cyclohexane	1,300	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Carbon tetrachloride	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Benzene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
1,2-Dichloroethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Trichloroethene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Methylcyclohexane	13,000	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
1,2-Dichloropropane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Bromodichloromethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
cis-1,3-Dichloropropene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
4-Methyl-2-pentanone (MIBK)	24,000	ug/kg	1300	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Toluene	11,000	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
trans-1,3-Dichloropropene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
1,1,2-Trichloroethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Tetrachloroethene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
2-Hexanone (MBK)	ND	ug/kg	1300	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Dibromochloromethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
1,2-Dibromoethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Chlorobenzene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
Ethylbenzene	6,400	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH
m&p-Xylene	44,000	ug/kg	1300	EPA 8260B	03/22/18	03/22/18 4:41	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:50  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-AW-14			Matrix:	Soil	Lab ID: 18031904-26		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	22,000	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
Styrene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
Bromoform	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
Isopropylbenzene	5,100	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
1,3-Dichlorobenzene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
1,4-Dichlorobenzene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
1,2-Dichlorobenzene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
Naphthalene	3,700	ug/kg	1300	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
tert-Butanol (TBA)	ND	ug/kg	3300	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	3300	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	670	EPA 8260B	03/22/18	03/22/18 4:41	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	4,900	mg/kg	24	EPA 8015C	03/20/18	03/20/18 23:49	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	3,300	mg/kg	270	EPA 8015C	03/21/18	03/21/18 19:14	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: 03/19/18 15:55  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-YD-23 (3.75-4.25)		Matrix:	Soil	Lab ID: 18031904-27		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	77	%		SM2540G	03/20/18	03/22/18 12:04	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Acetone	ND	ug/kg	60	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Methyl acetate	ND	ug/kg	30	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Methylene chloride	ND	ug/kg	30	EPA 8260B	03/22/18	03/22/18 2:42	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
2-Butanone (MEK)	ND	ug/kg	60	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	03/22/18	03/22/18 2:42	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:55  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-YD-23 (3.75-4.25)			Matrix:	Soil	Lab ID: 18031904-27		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
Styrene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
Bromoform	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
Naphthalene	ND	ug/kg	12	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
tert-Butanol (TBA)	ND	ug/kg	30	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	30	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/22/18	03/22/18 2:42	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	33	mg/kg	27	EPA 8015C	03/20/18	03/21/18 0:23	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/kg	0.24	EPA 8015C	03/21/18	03/21/18 17:40	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: 03/19/18 15:58  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-YD-20 (3.5-4)		Matrix:	Soil	Lab ID: 18031904-28		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/20/18	03/22/18 12:04	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Acetone	ND	ug/kg	67	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Carbon disulfide	ND	ug/kg	13	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Methyl acetate	ND	ug/kg	33	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Methylene chloride	ND	ug/kg	33	EPA 8260B	03/22/18	03/22/18 4:11	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
2-Butanone (MEK)	ND	ug/kg	67	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Methylcyclohexane	12	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Toluene	27	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
Ethylbenzene	48	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH
m&p-Xylene	240	ug/kg	13	EPA 8260B	03/22/18	03/22/18 4:11	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/19/18 15:58  
Date Received: 03/19/18 16:48  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031904

Field Sample ID:	PX-YD-20 (3.5-4)			Matrix:	Soil	Lab ID: 18031904-28		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	130	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
Styrene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
Bromoform	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
Isopropylbenzene	22	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
Naphthalene	120	ug/kg	13	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
tert-Butanol (TBA)	ND	ug/kg	33	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	33	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/22/18	03/22/18 4:11	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	540	mg/kg	25	EPA 8015C	03/20/18	03/21/18 0:23	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	5.0	mg/kg	0.28	EPA 8015C	03/21/18	03/21/18 4:38	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:	CPL
Contact/Report to:	Rob Shenk
Phone:	
Fax:	

E-mail address:	rshenk@colpipe.com
Project Name:	Bel Air Event
Project Number:	
Location:	Bel Air, MD

SDG Number:	18031904
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Sampled by:	ELIZA KUBSAR
PO Number:	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Sampling Remarks/Comments				
						Preservative														
	PX-OS-10 (0-0.5)	3/19/18	1405	3	SO	X	X	X												
	PX-OS-10 (0.5-1)	3/19/18	1416	3	SO	X	X	X											Extract & HOLD	
	PX-AW-01	↓	1438	3	SO	X	X	X												
	PX-AW-02		1445	3	SO	X	X	X												
	PX-AW-03		1455	3	SO	X	X	X												
	PX-AW-04		1502	3	SO	X	X	X												
	PX-AW-05		1505	3	SO	X	X	X												
	PX-AW-06		1510	3	SO	X	X	X												
	PX-AW-07		1518	3	SO	X	X	X												
	PX-AW-08		1522	3	SO	X	X	X												

Relinquished by:	<i>[Signature]</i>	Date/Time:	3/19/18 16:48	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	3/19/18 1648	I II III CLP EDD	Temp: _____ On Ice <input checked="" type="checkbox"/>	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 <input checked="" type="checkbox"/>		
Received by:		Date/Time:				





# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20133  
 MATRIX: SOIL INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/21/2018 4:13:00 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	23.6	94	54 - 127
BENZENE	25	NA	23.8	95	69 - 126
CARBON TETRACHLORIDE	25	NA	25.0	100	56 - 135
CHLOROBENZENE	25	NA	23.9	96	67 - 107
CHLOROFORM	25	NA	23.9	96	64 - 128
M&P-XYLENE	50	NA	50.3	100	69 - 113
METHYL T-BUTYL ETHER (MTBE)	25	NA	25.9	104	69 - 139
TETRACHLOROETHENE	25	NA	24.0	96	70 - 104
TOLUENE	25	NA	25.1	100	69 - 118
TRICHLOROETHENE	25	NA	23.1	93	71 - 104
VINYL CHLORIDE	25	NA	30.1	120	61 - 137

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20133  
**Batch Date:** 3/21/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Chloromethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Bromomethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Chloroethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Acetone	ND	ug/kg	EPA 8260B	50.0	03/21/18 16:43
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	03/21/18 16:43
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	03/21/18 16:43
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	03/21/18 16:43
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	03/21/18 16:43
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Benzene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,2-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	03/21/18 16:43
TOLUENE	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	03/21/18 16:43
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,2-Dibromoethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20133  
**Batch Date:** 3/21/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	03/21/18 16:43
o-Xylene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Styrene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Bromoform	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,2-Dibromo-3-chloropropane	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
Naphthalene	ND	ug/kg	EPA 8260B	10.0	03/21/18 16:43
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	03/21/18 16:43
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	03/21/18 16:43
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	03/21/18 16:43

Notes/Comments:

LLQ - Lowest Level of Quantitation

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



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 20133

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
PX-OS-01 / 18031904-01	3/22/2018 6:10:00 AM	114	101	101
PX-OS-02 / 18031904-02	3/22/2018 6:40:00 AM	119	99	101
PX-OS-03 / 18031904-03	3/22/2018 7:10:00 AM	117	98	102
PX-OS-04 / 18031904-04	3/22/2018 7:40:00 AM	128*	98	102
PX-OS-05 / 18031904-05	3/22/2018 8:09:00 AM	127*	98	103
PX-OS-06 / 18031904-06	3/22/2018 8:39:00 AM	118	99	98
PX-OS-07 / 18031904-07	3/22/2018 9:10:00 AM	115	95	98
PX-OS-08 / 18031904-08	3/22/2018 10:08:00 AM	129*	100	102
PX-OS-09 (0-0.5) / 18031904-09	3/21/2018 7:14:00 PM	106	102	104
PX-OS-09 (0.5-1) / 18031904-10	3/21/2018 7:44:00 PM	106	99	103
PX-OS-10 (0-0.5) / 18031904-11	3/21/2018 8:14:00 PM	108	100	103
PX-OS-10 (0.5-1) / 18031904-12	3/21/2018 8:44:00 PM	108	101	104
PX-AW-01 / 18031904-13	3/21/2018 9:14:00 PM	107	100	103
PX-AW-02 / 18031904-14	3/21/2018 9:44:00 PM	110	100	104
PX-AW-03 / 18031904-15	3/21/2018 10:14:00 PM	106	107	103
PX-AW-04 / 18031904-16	3/21/2018 10:44:00 PM	105	102	103
PX-AW-05 / 18031904-17	3/21/2018 11:13:00 PM	117	106	100
PX-AW-06 / 18031904-18	3/21/2018 11:43:00 PM	106	104	102
PX-AW-07 / 18031904-19	3/22/2018 12:13:00 AM	106	105	102
PX-AW-08 / 18031904-20	3/22/2018 5:11:00 AM	114	103	101
PX-AW-09 / 18031904-21	3/22/2018 5:41:00 AM	123*	98	103
PX-AW-10 / 18031904-22	3/22/2018 12:43:00 AM	106	102	102
PX-AW-11 / 18031904-23	3/22/2018 1:12:00 AM	127*	105	104
PX-AW-12 / 18031904-24	3/22/2018 3:11:00 AM	117	106	101
PX-AW-13 / 18031904-25	3/22/2018 2:12:00 AM	106	102	103
PX-AW-14 / 18031904-26	3/22/2018 4:41:00 AM	121*	100	104
PX-YD-23 (3.75-4.25) / 18031904-27	3/22/2018 2:42:00 AM	106	103	104
PX-YD-20 (3.5-4) / 18031904-28	3/22/2018 4:11:00 AM	120	104	103
	Upper Limit	120	120	120
	Lower Limit	85	85	85

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20129  
MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
SAMPLE ID: LCS  
DATE ANALYZED: 3/20/2018 4:54:00 PM  
LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	5302.6	96	75 - 125

\* - 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:** GRO  
**Matrix:** Soil

**Batch ID:** 20129  
**Batch Date:** 3/20/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	03/20/18 17:18

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: 20129

Sample ID	Date/Time Analyzed	TFT
PX-OS-01 / 18031904-01	3/20/2018 5:42:00 PM	68
PX-OS-02 / 18031904-02	3/20/2018 6:06:00 PM	66
PX-OS-03 / 18031904-03	3/20/2018 6:30:00 PM	60
PX-OS-04 / 18031904-04	3/20/2018 6:53:00 PM	64
PX-OS-05 / 18031904-05	3/20/2018 7:17:00 PM	60
PX-OS-06 / 18031904-06	3/20/2018 7:41:00 PM	58
PX-OS-07 / 18031904-07	3/21/2018 6:27:00 PM	57
PX-OS-08 / 18031904-08	3/21/2018 6:03:00 PM	60
PX-OS-09 (0-0.5) / 18031904-09	3/21/2018 4:52:00 PM	76
PX-OS-09 (0.5-1) / 18031904-10	3/20/2018 9:15:00 PM	72
PX-OS-10 (0-0.5) / 18031904-11	3/20/2018 9:38:00 PM	71
PX-OS-10 (0.5-1) / 18031904-12	3/20/2018 10:01:00 PM	70
PX-AW-01 / 18031904-13	3/20/2018 10:25:00 PM	74
PX-AW-02 / 18031904-14	3/20/2018 10:48:00 PM	73
PX-AW-03 / 18031904-15	3/20/2018 11:35:00 PM	70
PX-AW-04 / 18031904-16	3/20/2018 11:58:00 PM	70
PX-AW-05 / 18031904-17	3/21/2018 12:21:00 AM	52
PX-AW-06 / 18031904-18	3/21/2018 12:45:00 AM	68
PX-AW-07 / 18031904-19	3/21/2018 1:08:00 AM	66
PX-AW-08 / 18031904-20	3/21/2018 1:31:00 AM	60
PX-AW-09 / 18031904-21	3/21/2018 6:51:00 PM	65
PX-AW-10 / 18031904-22	3/21/2018 5:16:00 PM	74
PX-AW-11 / 18031904-23	3/21/2018 2:41:00 AM	69
PX-AW-12 / 18031904-24	3/21/2018 3:05:00 AM	68
PX-AW-13 / 18031904-25	3/21/2018 3:28:00 AM	86
PX-AW-14 / 18031904-26	3/21/2018 7:14:00 PM	62
PX-YD-23 (3.75-4.25) / 18031904-27	3/21/2018 5:40:00 PM	76
PX-YD-20 (3.5-4) / 18031904-28	3/21/2018 4:38:00 AM	79

Upper Limit	118
Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20130  
MATRIX: SOIL INSTRUMENT: DRO1  
SAMPLE ID: LCS  
DATE ANALYZED: 3/20/2018 11:32:00 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	501.8	98	84 - 120

\* - 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:** DRO  
**Matrix:** Soil

**Batch ID:** 20130  
**Batch Date:** 3/20/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	03/20/18 11:32

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: 20130

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-OS-01 / 18031904-01	3/20/2018 12:07:00 PM	115
PX-OS-02 / 18031904-02	3/20/2018 6:36:00 PM	100
PX-OS-03 / 18031904-03	3/20/2018 7:11:00 PM	116
PX-OS-04 / 18031904-04	3/20/2018 7:11:00 PM	84
PX-OS-05 / 18031904-05	3/20/2018 7:46:00 PM	75
PX-OS-06 / 18031904-06	3/20/2018 7:46:00 PM	67
PX-OS-07 / 18031904-07	3/20/2018 8:21:00 PM	117
PX-OS-08 / 18031904-08	3/20/2018 8:21:00 PM	92
PX-OS-09 (0-0.5) / 18031904-09	3/20/2018 2:26:00 PM	93
PX-OS-09 (0.5-1) / 18031904-10	3/20/2018 2:26:00 PM	93
PX-OS-10 (0-0.5) / 18031904-11	3/20/2018 3:05:00 PM	99
PX-OS-10 (0.5-1) / 18031904-12	3/20/2018 3:05:00 PM	96
PX-AW-01 / 18031904-13	3/20/2018 3:39:00 PM	89
PX-AW-02 / 18031904-14	3/20/2018 3:39:00 PM	96
PX-AW-03 / 18031904-15	3/20/2018 4:14:00 PM	97
PX-AW-04 / 18031904-16	3/20/2018 4:14:00 PM	95
PX-AW-05 / 18031904-17	3/20/2018 4:49:00 PM	102
PX-AW-06 / 18031904-18	3/20/2018 4:49:00 PM	100
PX-AW-07 / 18031904-19	3/20/2018 5:24:00 PM	87
PX-AW-08 / 18031904-20	3/20/2018 5:24:00 PM	82

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: 20124  
 MATRIX: SOIL INSTRUMENT: DRO1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/20/2018 10:05:00 PM  
 LAB FILE IDs: 30.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	481.2	94	84 - 120

SAMPLE ID: LCSD  
 DATE ANALYZED: 3/21/2018 3:50:00 AM  
 LAB FILE IDs: 49.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPK DUP CONC (mg/L)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	NA	480.3	94	0.2	20	84 - 120

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** DRO  
**Matrix:** Soil

**Batch ID:** 20124  
**Batch Date:** 3/20/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	03/20/18 22:05

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: 20124

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-AW-09 / 18031904-21	3/22/2018 8:20:00 AM	92
PX-AW-10 / 18031904-22	3/20/2018 10:40:00 PM	83
PX-AW-11 / 18031904-23	3/20/2018 11:14:00 PM	89
PX-AW-12 / 18031904-24	3/20/2018 11:14:00 PM	88
PX-AW-13 / 18031904-25	3/20/2018 11:49:00 PM	89
PX-AW-14 / 18031904-26	3/20/2018 11:49:00 PM	112
PX-YD-23 (3.75-4.25) / 18031904-27	3/21/2018 12:23:00 AM	82
PX-YD-20 (3.5-4) / 18031904-28	3/21/2018 12:23:00 AM	114

Upper Limit	126
Lower Limit	46

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/26/18 15:43  
Date Issued: 03/27/18 15:56  
Matrix: Soil

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: NA

SDG Number: 18032601

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> PX-YD-35 (3.75-4.25)				<b>Date Sampled:</b> 03/26/18 11:10	<b>Lab ID:</b> 18032601-01		
<b>Percent Solids</b>							
Percent Solids	72	%		SM2540G	03/27/18	03/27/18 15:25	MEL
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	29	EPA 8015C	03/26/18	03/27/18 12:41	AC
<b>Field Sample ID:</b> PX-YD-33 (2.75-3.25)				<b>Date Sampled:</b> 03/26/18 11:22	<b>Lab ID:</b> 18032601-02		
<b>Percent Solids</b>							
Percent Solids	80	%		SM2540G	03/27/18	03/27/18 15:25	MEL
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	26	EPA 8015C	03/26/18	03/27/18 13:17	AC
<b>Field Sample ID:</b> PX-YD-31 (3-3.5)				<b>Date Sampled:</b> 03/26/18 11:37	<b>Lab ID:</b> 18032601-03		
<b>Percent Solids</b>							
Percent Solids	76	%		SM2540G	03/27/18	03/27/18 15:25	MEL
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	26	EPA 8015C	03/26/18	03/27/18 13:17	AC
<b>Field Sample ID:</b> PX-YD-30 (3.25-3.75)				<b>Date Sampled:</b> 03/26/18 11:44	<b>Lab ID:</b> 18032601-04		
<b>Percent Solids</b>							
Percent Solids	76	%		SM2540G	03/27/18	03/27/18 15:26	MEL
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	27	EPA 8015C	03/26/18	03/27/18 13:52	AC
<b>Field Sample ID:</b> PX-YD-38 (3.25-3.75)				<b>Date Sampled:</b> 03/26/18 11:56	<b>Lab ID:</b> 18032601-05		
<b>Percent Solids</b>							
Percent Solids	88	%		SM2540G	03/27/18	03/27/18 15:25	MEL
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	25	EPA 8015C	03/26/18	03/27/18 13:52	AC
<b>Field Sample ID:</b> PX-YD-39 (3.25-3.75)				<b>Date Sampled:</b> 03/26/18 12:30	<b>Lab ID:</b> 18032601-06		
<b>Percent Solids</b>							
Percent Solids	80	%		SM2540G	03/27/18	03/27/18 15:26	MEL
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	26	EPA 8015C	03/26/18	03/27/18 14:27	AC
<b>Field Sample ID:</b> PX-AW-12 (4-4.5)				<b>Date Sampled:</b> 03/26/18 14:00	<b>Lab ID:</b> 18032601-07		
<b>Percent Solids</b>							
Percent Solids	76	%		SM2540G	03/27/18	03/27/18 15:26	MEL
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	810	mg/kg	49	EPA 8015C	03/26/18	03/27/18 14:27	AC



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/26/18 15:43  
Date Issued: 03/27/18 15:56  
Matrix: Soil

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: NA

SDG Number: 18032601

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Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
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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:

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QC Chemist





## Surrogate Report

Client ID	Lab ID	Surrogate Compound	Result	Unit	Control Limits
PX-YD-35 (3.75-4.25)	18032601-01	Total Petroleum Hydrocarbons - (C10-C28) DRO o-Terphenyl (DRO SURR)	85	%	57-129
PX-YD-33 (2.75-3.25)	18032601-02	Total Petroleum Hydrocarbons - (C10-C28) DRO o-Terphenyl (DRO SURR)	94	%	57-129
PX-YD-31 (3-3.5)	18032601-03	Total Petroleum Hydrocarbons - (C10-C28) DRO o-Terphenyl (DRO SURR)	92	%	57-129
PX-YD-30 (3.25-3.75)	18032601-04	Total Petroleum Hydrocarbons - (C10-C28) DRO o-Terphenyl (DRO SURR)	96	%	57-129
PX-YD-38 (3.25-3.75)	18032601-05	Total Petroleum Hydrocarbons - (C10-C28) DRO o-Terphenyl (DRO SURR)	86	%	57-129
PX-YD-39 (3.25-3.75)	18032601-06	Total Petroleum Hydrocarbons - (C10-C28) DRO o-Terphenyl (DRO SURR)	91	%	57-129
PX-AW-12 (4-4.5)	18032601-07	Total Petroleum Hydrocarbons - (C10-C28) DRO o-Terphenyl (DRO SURR)	90	%	57-129

Qualifiers:

D = Surrogate diluted out.

C = Surrogate coeluted with an interfering peak(s)

\* = Surrogate outside of control limits







# CALIBER ANALYTICAL SERVICES

GRO

## SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8015C

LAB CODE:

SURR

MATRIX: SOIL

BATCH NUMBER:

20219

Sample ID	Date/Time Analyzed	TFT
PX-YD-13 (2.25-2.75) / 18040602-01	4/9/2018 6:06:00 PM	90
Soil Composite #3 / 18040602-02	4/10/2018 11:25:00 AM	78

Upper Limit	124
Lower Limit	49

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20219  
 MATRIX: WATER INSTRUMENT: VOC-PID/FID  
 SAMPLE ID: LCS  
 DATE ANALYZED: 4/9/2018 4:31:00 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	5011.6	91	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:** Water

**Batch ID:** 20219  
**Batch Date:** 4/9/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	04/09/18 16:55

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: 20222

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-YD-13 (2.25-2.75) / 18040602-01	4/10/2018 3:25:00 PM	99
Soil Composite #3 / 18040602-02	4/10/2018 6:25:00 PM	92

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: 20222  
 MATRIX: SOIL INSTRUMENT: DRO1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 4/10/2018 2:50:00 PM  
 LAB FILE IDs: 16.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	445.8	87	84 - 120

SAMPLE ID: LCSD  
 DATE ANALYZED: 4/11/2018 2:06:00 PM  
 LAB FILE IDs: 32.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPK DUP CONC (mg/L)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	NA	504.0	99	12.3	20	84 - 120

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** DRO  
**Matrix:** Soil

**Batch ID:** 20222  
**Batch Date:** 4/9/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	04/10/18 14:50

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: 03/14/18 10:00  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-1 (8-8.5)	Matrix:	Soil	Lab ID:	18031406-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	71	%		SM2540G	03/15/18	03/16/18 10:21	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Acetone	ND	ug/kg	71	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Carbon disulfide	ND	ug/kg	14	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Methyl acetate	ND	ug/kg	36	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Methylene chloride	ND	ug/kg	36	EPA 8260B	03/20/18	03/20/18 21:54	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
2-Butanone (MEK)	ND	ug/kg	71	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Toluene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
2-Hexanone (MBK)	ND	ug/kg	14	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Ethylbenzene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
m&p-Xylene	ND	ug/kg	14	EPA 8260B	03/20/18	03/20/18 21:54	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 10:00  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-1 (8-8.5)	Matrix:	Soil	Lab ID:	18031406-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Styrene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Naphthalene	ND	ug/kg	14	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
tert-Butanol (TBA)	ND	ug/kg	36	EPA 8260B	03/20/18	03/20/18 21:54	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	36	EPA 8260B	03/20/18	03/20/18 21:54	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/20/18	03/20/18 21:54	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	26	EPA 8015C	03/16/18	03/16/18 21:18	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.3	EPA 8015C	03/19/18	03/19/18 22:09	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: 03/14/18 10:38  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-2 (7-7.5)	Matrix:	Soil	Lab ID:	18031406-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	86	%		SM2540G	03/15/18	03/16/18 10:21	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Acetone	ND	ug/kg	52	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Methyl acetate	ND	ug/kg	26	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Methylene chloride	ND	ug/kg	26	EPA 8260B	03/20/18	03/20/18 22:24	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
2-Butanone (MEK)	ND	ug/kg	52	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Benzene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Toluene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Ethylbenzene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
m&p-Xylene	ND	ug/kg	10	EPA 8260B	03/20/18	03/20/18 22:24	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 10:38  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-2 (7-7.5)	Matrix:	Soil	Lab ID:	18031406-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Styrene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Bromoform	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Naphthalene	ND	ug/kg	10	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
tert-Butanol (TBA)	ND	ug/kg	26	EPA 8260B	03/20/18	03/20/18 22:24	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	26	EPA 8260B	03/20/18	03/20/18 22:24	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	5	EPA 8260B	03/20/18	03/20/18 22:24	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	24	EPA 8015C	03/16/18	03/16/18 21:52	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.24	EPA 8015C	03/19/18	03/19/18 22:32	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: 03/14/18 11:30  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-3 (12-12.5)	Matrix:	Soil	Lab ID:	18031406-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	63	%		SM2540G	03/15/18	03/16/18 10:21	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Chloromethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Vinyl chloride	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Bromomethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Chloroethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Trichlorofluoromethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
1,1-Dichloroethene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Acetone	ND	ug/kg	94	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Carbon disulfide	ND	ug/kg	19	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Methyl acetate	ND	ug/kg	47	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Methylene chloride	ND	ug/kg	47	EPA 8260B	03/20/18	03/20/18 22:54	GFH
trans-1,2-Dichloroethene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
1,1-Dichloroethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
cis-1,2-Dichloroethene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
2-Butanone (MEK)	ND	ug/kg	94	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Chloroform	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
1,1,1-Trichloroethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Cyclohexane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Carbon tetrachloride	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Benzene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
1,2-Dichloroethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Trichloroethene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Methylcyclohexane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
1,2-Dichloropropane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Bromodichloromethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
cis-1,3-Dichloropropene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	19	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Toluene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
trans-1,3-Dichloropropene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
1,1,2-Trichloroethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Tetrachloroethene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
2-Hexanone (MBK)	ND	ug/kg	19	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Dibromochloromethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
1,2-Dibromoethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Chlorobenzene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
Ethylbenzene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH
m&p-Xylene	ND	ug/kg	19	EPA 8260B	03/20/18	03/20/18 22:54	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 11:30  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-3 (12-12.5)			Matrix:	Soil	Lab ID: 18031406-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
Styrene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
Bromoform	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
Isopropylbenzene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
1,3-Dichlorobenzene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
1,4-Dichlorobenzene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
1,2-Dichlorobenzene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
Naphthalene	ND	ug/kg	19	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
tert-Butanol (TBA)	ND	ug/kg	47	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	47	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	9	EPA 8260B	03/20/18	03/20/18 22:54	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/kg	34	EPA 8015C	03/16/18	03/16/18 21:52	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/kg	0.37	EPA 8015C	03/19/18	03/19/18 22:56	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: 03/14/18 13:30  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-4 (14-14.5)	Matrix:	Soil	Lab ID:	18031406-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	77	%		SM2540G	03/15/18	03/16/18 10:21	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Acetone	ND	ug/kg	59	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Methyl acetate	ND	ug/kg	30	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Methylene chloride	ND	ug/kg	30	EPA 8260B	03/20/18	03/20/18 23:23	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
2-Butanone (MEK)	ND	ug/kg	59	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/20/18	03/20/18 23:23	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	03/20/18	03/20/18 23:23	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 13:40  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-4 (16.5-17)		Matrix:	Soil	Lab ID: 18031406-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	64	%		SM2540G	03/15/18	03/16/18 10:22	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Chloromethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Vinyl chloride	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Bromomethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Chloroethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Trichlorofluoromethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,1-Dichloroethene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Acetone	ND	ug/kg	81	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Carbon disulfide	ND	ug/kg	16	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Methyl acetate	ND	ug/kg	41	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Methylene chloride	ND	ug/kg	41	EPA 8260B	03/20/18	03/20/18 23:53	GFH
trans-1,2-Dichloroethene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,1-Dichloroethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
cis-1,2-Dichloroethene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
2-Butanone (MEK)	ND	ug/kg	81	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Chloroform	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,1,1-Trichloroethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Cyclohexane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Carbon tetrachloride	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Benzene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,2-Dichloroethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Trichloroethene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Methylcyclohexane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,2-Dichloropropane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Bromodichloromethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
cis-1,3-Dichloropropene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	16	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Toluene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
trans-1,3-Dichloropropene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,1,2-Trichloroethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Tetrachloroethene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
2-Hexanone (MBK)	ND	ug/kg	16	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Dibromochloromethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,2-Dibromoethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Chlorobenzene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Ethylbenzene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
m&p-Xylene	ND	ug/kg	16	EPA 8260B	03/20/18	03/20/18 23:53	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 13:40  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-4 (16.5-17)	Matrix:	Soil	Lab ID:	18031406-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Styrene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Bromoform	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Isopropylbenzene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,3-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,4-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,2-Dichlorobenzene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Naphthalene	ND	ug/kg	16	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
tert-Butanol (TBA)	ND	ug/kg	41	EPA 8260B	03/20/18	03/20/18 23:53	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	41	EPA 8260B	03/20/18	03/20/18 23:53	GFH
tert-Amyl ethyl ether (TAAEE)	ND	ug/kg	8	EPA 8260B	03/20/18	03/20/18 23:53	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	30	EPA 8015C	03/16/18	03/16/18 22:26	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.28	EPA 8015C	03/19/18	03/19/18 23:43	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: 03/14/18 14:45  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-5 (8.5-9)	Matrix:	Soil	Lab ID:	18031406-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	78	%		SM2540G	03/15/18	03/16/18 10:22	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Acetone	ND	ug/kg	67	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Carbon disulfide	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Methyl acetate	ND	ug/kg	34	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Methylene chloride	ND	ug/kg	34	EPA 8260B	03/21/18	03/21/18 0:23	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
2-Butanone (MEK)	ND	ug/kg	67	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Toluene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Ethylbenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
m&p-Xylene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 0:23	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 14:45  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-5 (8.5-9)	Matrix:	Soil	Lab ID:	18031406-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Styrene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Naphthalene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
tert-Butanol (TBA)	ND	ug/kg	34	EPA 8260B	03/21/18	03/21/18 0:23	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	34	EPA 8260B	03/21/18	03/21/18 0:23	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 0:23	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	24	EPA 8015C	03/16/18	03/16/18 23:01	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.29	EPA 8015C	03/20/18	03/20/18 0:07	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: 03/14/18 14:55  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-6 (8.5-9)	Matrix:	Soil	Lab ID:	18031406-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	88	%		SM2540G	03/15/18	03/16/18 10:22	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Acetone	ND	ug/kg	56	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Methyl acetate	ND	ug/kg	28	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Methylene chloride	ND	ug/kg	28	EPA 8260B	03/21/18	03/21/18 0:52	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
2-Butanone (MEK)	ND	ug/kg	56	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 0:52	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 14:55  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-6 (8.5-9)	Matrix:	Soil	Lab ID:	18031406-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Styrene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Naphthalene	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
tert-Butanol (TBA)	ND	ug/kg	28	EPA 8260B	03/21/18	03/21/18 0:52	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	28	EPA 8260B	03/21/18	03/21/18 0:52	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 0:52	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	24	EPA 8015C	03/16/18	03/16/18 23:01	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.25	EPA 8015C	03/20/18	03/20/18 0:30	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: 03/14/18 15:37  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-7 (14.5-15)		Matrix:	Soil	Lab ID: 18031406-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/15/18	03/16/18 10:22	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Acetone	ND	ug/kg	55	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Methyl acetate	ND	ug/kg	27	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Methylene chloride	ND	ug/kg	27	EPA 8260B	03/21/18	03/21/18 1:22	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
2-Butanone (MEK)	ND	ug/kg	55	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Benzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Toluene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
Ethylbenzene	ND	ug/kg	5	EPA 8260B	03/21/18	03/21/18 1:22	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	03/21/18	03/21/18 1:22	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 16:10  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-4 (8.5-9)		Matrix:	Soil	Lab ID: 18031406-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	82	%		SM2540G	03/15/18	03/16/18 10:22	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Acetone	ND	ug/kg	63	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Carbon disulfide	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Methyl acetate	ND	ug/kg	31	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Methylene chloride	ND	ug/kg	31	EPA 8260B	03/21/18	03/21/18 1:52	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
2-Butanone (MEK)	ND	ug/kg	63	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH
m&p-Xylene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 1:52	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 16:10  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-4 (8.5-9)			Matrix:	Soil	Lab ID: 18031406-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
Styrene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
Bromoform	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
Naphthalene	ND	ug/kg	13	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
tert-Butanol (TBA)	ND	ug/kg	31	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	31	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/21/18	03/21/18 1:52	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/kg	26	EPA 8015C	03/16/18	03/16/18 23:35	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/kg	0.23	EPA 8015C	03/20/18	03/20/18 1:17	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: 03/14/18 16:10  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-8 (13.5-14)		Matrix:	Soil	Lab ID: 18031406-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	66	%		SM2540G	03/15/18	03/16/18 10:22	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Acetone	ND	ug/kg	70	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Carbon disulfide	ND	ug/kg	14	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Methyl acetate	ND	ug/kg	35	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Methylene chloride	ND	ug/kg	35	EPA 8260B	03/21/18	03/21/18 2:21	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
2-Butanone (MEK)	ND	ug/kg	70	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Benzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Toluene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
2-Hexanone (MBK)	ND	ug/kg	14	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Ethylbenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
m&p-Xylene	ND	ug/kg	14	EPA 8260B	03/21/18	03/21/18 2:21	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 16:10  
Date Received: 03/14/18 16:20  
Date Issued: 03/22/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031406

Field Sample ID:	GP-8 (13.5-14)		Matrix:	Soil	Lab ID: 18031406-10		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Styrene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Bromoform	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Naphthalene	ND	ug/kg	14	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
tert-Butanol (TBA)	ND	ug/kg	35	EPA 8260B	03/21/18	03/21/18 2:21	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	35	EPA 8260B	03/21/18	03/21/18 2:21	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	03/21/18	03/21/18 2:21	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	29	EPA 8015C	03/16/18	03/17/18 0:09	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.34	EPA 8015C	03/20/18	03/20/18 1:41	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

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20114  
 MATRIX: SOIL INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/20/2018 12:31:00 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	20.4	82	54 - 127
BENZENE	25	NA	21.6	86	69 - 126
CARBON TETRACHLORIDE	25	NA	22.6	90	56 - 135
CHLOROBENZENE	25	NA	23.0	92	67 - 107
CHLOROFORM	25	NA	20.1	81	64 - 128
M&P-XYLENE	50	NA	47.4	95	69 - 113
METHYL T-BUTYL ETHER (MTBE)	25	NA	22.5	90	69 - 139
TETRACHLOROETHENE	25	NA	24.0	96	70 - 104
TOLUENE	25	NA	23.0	92	69 - 118
TRICHLOROETHENE	25	NA	22.2	89	71 - 104
VINYL CHLORIDE	25	NA	22.8	91	61 - 137

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20114  
**Batch Date:** 3/17/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Chloromethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
VINYL CHLORIDE	ND	ug/L	EPA 8260B	1.0	03/20/18 13:00
Bromomethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Chloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Trichlorofluoromethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1-DICHLOROETHENE	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1,2-Trichlorotrifluoroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Acetone	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
Carbon disulfide	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Methyl acetate	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Methylene chloride	ND	ug/L	EPA 8260B	10.0	03/20/18 13:00
trans-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Methyl t-butyl ether (MTBE)	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1-Dichloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
cis-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
2-Butanone (MEK)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
CHLOROFORM	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1,1-Trichloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Cyclohexane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Carbon tetrachloride	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Benzene	ND	ug/L	EPA 8260B	1.0	03/20/18 13:00
1,2-Dichloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Trichloroethene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Methylcyclohexane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,2-DICHLOROPROPANE	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Bromodichloromethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
cis-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
4-Methyl-2-pentanone (MIBK)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
TOLUENE	ND	ug/L	EPA 8260B	1.0	03/20/18 13:00
trans-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1,2-Trichloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Tetrachloroethene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
2-Hexanone (MBK)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
Dibromochloromethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,2-Dibromoethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
CHLOROBENZENE	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
ETHYLBENZENE	ND	ug/L	EPA 8260B	1.0	03/20/18 13:00



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20114  
**Batch Date:** 3/17/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
o-Xylene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Styrene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Bromoform	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Isopropylbenzene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1,2,2-Tetrachloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,3-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,4-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,2-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,2-Dibromo-3-chloropropane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,2,4-Trichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Naphthalene	ND	ug/L	EPA 8260B	10.0	03/20/18 13:00
Ethyl t-butyl ether (ETBE)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
tert-Butanol (TBA)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
Diisopropyl ether (DIPE)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
tert-Amyl methyl ether (TAME)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
tert-Amyl alcohol (TAA)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
tert-Amyl ethyl ether (TAEE)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00

Notes/Comments:

LLQ - Lowest Level of Quantitation

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



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 20114

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
GP-1 (8-8.5) / 18031406-01	3/20/2018 9:54:00 PM	104	104	103
GP-2 (7-7.5) / 18031406-02	3/20/2018 10:24:00 PM	103	104	103
GP-3 (12-12.5) / 18031406-03	3/20/2018 10:54:00 PM	102	106	105
GP-4 (14-14.5) / 18031406-04	3/20/2018 11:23:00 PM	103	106	103
GP-4 (16.5-17) / 18031406-05	3/20/2018 11:53:00 PM	104	105	105
GP-5 (8.5-9) / 18031406-06	3/21/2018 12:23:00 AM	104	105	103
GP-6 (8.5-9) / 18031406-07	3/21/2018 12:52:00 AM	105	104	105
GP-7 (14.5-15) / 18031406-08	3/21/2018 1:22:00 AM	103	103	103
GP-4 (8.5-9) / 18031406-09	3/21/2018 1:52:00 AM	104	104	104
GP-8 (13.5-14) / 18031406-10	3/21/2018 2:21:00 AM	104	103	103
	Upper Limit	120	120	120
	Lower Limit	85	85	85

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20120  
MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
SAMPLE ID: LCS  
DATE ANALYZED: 3/19/2018 4:12:00 PM  
LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	4595.2	84	75 - 125

\* - 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:** GRO  
**Matrix:** Soil

**Batch ID:** 20120  
**Batch Date:** 3/19/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	03/19/18 16:36

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: 20120

Sample ID	Date/Time Analyzed	TFT
GP-1 (8-8.5) / 18031406-01	3/19/2018 10:09:00 PM	75
GP-2 (7-7.5) / 18031406-02	3/19/2018 10:32:00 PM	74
GP-3 (12-12.5) / 18031406-03	3/19/2018 10:56:00 PM	72
GP-4 (14-14.5) / 18031406-04	3/19/2018 11:20:00 PM	60
GP-4 (16.5-17) / 18031406-05	3/19/2018 11:43:00 PM	82
GP-5 (8.5-9) / 18031406-06	3/20/2018 12:07:00 AM	74
GP-6 (8.5-9) / 18031406-07	3/20/2018 12:30:00 AM	73
GP-7 (14.5-15) / 18031406-08	3/20/2018 12:54:00 AM	74
GP-4 (8.5-9) / 18031406-09	3/20/2018 1:17:00 AM	62
GP-8 (13.5-14) / 18031406-10	3/20/2018 1:41:00 AM	72

Upper Limit	118
Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20107  
MATRIX: SOIL INSTRUMENT: DRO1  
SAMPLE ID: LCS  
DATE ANALYZED: 3/16/2018 6:59:00 PM  
LAB FILE IDs: 30.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	583.1	114	84 - 120

\* - 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:** DRO  
**Matrix:** Soil

**Batch ID:** 20107  
**Batch Date:** 3/16/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	03/16/18 18:59

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: 20107

Sample ID	Date/Time Analyzed	o-Terphenyl
GP-1 (8-8.5) / 18031406-01	3/16/2018 9:18:00 PM	93
GP-2 (7-7.5) / 18031406-02	3/16/2018 9:52:00 PM	82
GP-3 (12-12.5) / 18031406-03	3/16/2018 9:52:00 PM	102
GP-4 (14-14.5) / 18031406-04	3/16/2018 10:26:00 PM	77
GP-4 (16.5-17) / 18031406-05	3/16/2018 10:26:00 PM	96
GP-5 (8.5-9) / 18031406-06	3/16/2018 11:01:00 PM	108
GP-6 (8.5-9) / 18031406-07	3/16/2018 11:01:00 PM	88
GP-7 (14.5-15) / 18031406-08	3/16/2018 11:35:00 PM	74
GP-4 (8.5-9) / 18031406-09	3/16/2018 11:35:00 PM	97
GP-8 (13.5-14) / 18031406-10	3/17/2018 12:09:00 AM	97
	Upper Limit	126
	Lower Limit	46

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/16/18 8:45  
Date Received: 03/16/18 16:45  
Date Issued: 03/23/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031608

Field Sample ID:	GP - 10 (18-18.5)	Matrix:	Soil	Lab ID:	18031608-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	87	%		SM2540G	03/19/18	03/19/18 12:30	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Acetone	ND	ug/kg	58	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Methyl acetate	ND	ug/kg	29	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Methylene chloride	ND	ug/kg	29	EPA 8260B	03/17/18	03/21/18 2:51	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
2-Butanone (MEK)	ND	ug/kg	58	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Benzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Toluene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH
m&p-Xylene	ND	ug/kg	12	EPA 8260B	03/17/18	03/21/18 2:51	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/16/18 8:45  
Date Received: 03/16/18 16:45  
Date Issued: 03/23/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031608

Field Sample ID:	GP - 10 (18-18.5)			Matrix:	Soil	Lab ID: 18031608-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
Styrene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
Bromoform	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
Naphthalene	ND	ug/kg	12	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
tert-Butanol (TBA)	ND	ug/kg	29	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	29	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	03/17/18	03/21/18 2:51	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/kg	11	EPA 8015C	03/20/18	03/21/18 0:58	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/kg	0.22	EPA 8015C	03/22/18	03/22/18 15:31	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 LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20114  
 MATRIX: SOIL INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/20/2018 12:31:00 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	20.4	82	54 - 127
BENZENE	25	NA	21.6	86	69 - 126
CARBON TETRACHLORIDE	25	NA	22.6	90	56 - 135
CHLOROBENZENE	25	NA	23.0	92	67 - 107
CHLOROFORM	25	NA	20.1	81	64 - 128
M&P-XYLENE	50	NA	47.4	95	69 - 113
METHYL T-BUTYL ETHER (MTBE)	25	NA	22.5	90	69 - 139
TETRACHLOROETHENE	25	NA	24.0	96	70 - 104
TOLUENE	25	NA	23.0	92	69 - 118
TRICHLOROETHENE	25	NA	22.2	89	71 - 104
VINYL CHLORIDE	25	NA	22.8	91	61 - 137

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20114  
**Batch Date:** 3/17/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Chloromethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
VINYL CHLORIDE	ND	ug/L	EPA 8260B	1.0	03/20/18 13:00
Bromomethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Chloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Trichlorofluoromethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1-DICHLOROETHENE	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1,2-Trichlorotrifluoroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Acetone	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
Carbon disulfide	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Methyl acetate	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Methylene chloride	ND	ug/L	EPA 8260B	10.0	03/20/18 13:00
trans-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Methyl t-butyl ether (MTBE)	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1-Dichloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
cis-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
2-Butanone (MEK)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
CHLOROFORM	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1,1-Trichloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Cyclohexane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Carbon tetrachloride	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Benzene	ND	ug/L	EPA 8260B	1.0	03/20/18 13:00
1,2-Dichloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Trichloroethene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Methylcyclohexane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,2-DICHLOROPROPANE	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Bromodichloromethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
cis-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
4-Methyl-2-pentanone (MIBK)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
TOLUENE	ND	ug/L	EPA 8260B	1.0	03/20/18 13:00
trans-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1,2-Trichloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Tetrachloroethene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
2-Hexanone (MBK)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
Dibromochloromethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,2-Dibromoethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
CHLOROBENZENE	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
ETHYLBENZENE	ND	ug/L	EPA 8260B	1.0	03/20/18 13:00



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20114  
**Batch Date:** 3/17/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
o-Xylene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Styrene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Bromoform	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Isopropylbenzene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,1,2,2-Tetrachloroethane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,3-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,4-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,2-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,2-Dibromo-3-chloropropane	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
1,2,4-Trichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/20/18 13:00
Naphthalene	ND	ug/L	EPA 8260B	10.0	03/20/18 13:00
Ethyl t-butyl ether (ETBE)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
tert-Butanol (TBA)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
Diisopropyl ether (DIPE)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
tert-Amyl methyl ether (TAME)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
tert-Amyl alcohol (TAA)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00
tert-Amyl ethyl ether (TAEE)	ND	ug/L	EPA 8260B	25.0	03/20/18 13:00

Notes/Comments:

LLQ - Lowest Level of Quantitation

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



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 20114

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
GP - 10 (18-18.5) / 18031608-01	3/21/2018 2:51:00 AM	105	103	104

Upper Limit	120	120	120
Lower Limit	85	85	85

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20136  
MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
SAMPLE ID: LCS  
DATE ANALYZED: 3/22/2018 1:55:00 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	5708.6	104	75 - 125

\* - 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:** GRO  
**Matrix:** Soil

**Batch ID:** 20136  
**Batch Date:** 3/22/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/L	EPA 8015C	0.2	03/22/18 14:19

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: 20136

Sample ID	Date/Time Analyzed	TFT
GP - 10 (18-18.5) / 18031608-01	3/22/2018 3:31:00 PM	77
	Upper Limit	118
	Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20124  
 MATRIX: SOIL INSTRUMENT: DRO1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/20/2018 10:05:00 PM  
 LAB FILE IDs: 30.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	481.2	94	84 - 120

SAMPLE ID: LCSD  
 DATE ANALYZED: 3/21/2018 3:50:00 AM  
 LAB FILE IDs: 49.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPK DUP CONC (mg/L)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	NA	480.3	94	0.2	20	84 - 120

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** DRO  
**Matrix:** Soil

**Batch ID:** 20124  
**Batch Date:** 3/20/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	03/20/18 22:05

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: 20124

Sample ID	Date/Time Analyzed	o-Terphenyl
GP - 10 (18-18.5) / 18031608-01	3/21/2018 12:58:00 AM	97
	Upper Limit	126
	Lower Limit	46

\* - Indicates values outside of QC control limits.

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Edison

777 New Durham Road

Edison, NJ 08817

Tel: (732)549-3900

TestAmerica Job ID: 460-155226-1

Client Project/Site: Bel Air Station, Fallston, MD

Revision: 1

For:

TRC Environmental Corporation

1601 Market St.

Suite 2555

Philadelphia, Pennsylvania 19130

Attn: Brian Hecker



Authorized for release by:

5/9/2018 10:05:12 AM

Allison Bennett, Project Manager I

(732)549-3900

[allison.bennett@testamericainc.com](mailto:allison.bennett@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

### GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

### GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Job ID: 460-155226-1**

**Laboratory: TestAmerica Edison**

## Narrative

**Job Narrative  
460-155226-1  
Revision 1 - Sample ID Changes**

### Comments

No additional comments.

### Receipt

The samples were received on 5/3/2018 9:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

### GC/MS VOA

Method(s) 8260C: The initial calibration curve analyzed in 512586 was outside acceptance criteria for 1,2-Dibromo-3-Chloropropane. The minimum response factor (RF) was outside required limit. This analyte was not detected in the associated samples.

460-155226-3, 460-155226-9 and 460-155226-10

Method(s) 8260C: Tertiary Amyl Alcohol and Tertiary Amyl Ethyl Ether were searched for as TICs and were not detected in the following samples: 460-155226-3, 460-155226-9 and 460-155226-10.

Method(s) 8260C: The minimum response factor (RF) in continuing calibration verification (CCV) analyzed in batch 460-517253 was outside the method criteria for the following analyte: 1,2-Dibromo-3-Chloropropane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 460-516715 was outside the method criteria for the following analyte(s): Bromomethane (biased high) and 1,1,2,2-Tetrachloroethane (biased low). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C: Internal standard (ISTD) response for 1,4-Dioxane-d8 for the following samples was outside acceptance criteria: 460-155226-3 and 460-155226-9. This ISTD does not correspond to any of the requested target compounds; therefore, the data have been reported.

Method(s) 8260C: Tertiary Amyl Alcohol and Tertiary Amyl Ethyl Ether were searched for as TICs and were not detected in the following samples: 460-155226-1, 460-155226-2, 460-155226-4, 460-155226-5, 460-155226-6, 460-155226-7 and 460-155226-8

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 460-516715 recovered outside control limits for the following analyte: Bromomethane. This analyte was biased high in the LCS/LCSD and was not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### GC VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### GC Semi VOA

Method(s) 8015D: The following samples were diluted to bring the concentration of target analytes within the calibration range: 460-155226-6, 460-155226-8, 460-155125-B-1-A, 460-155125-A-1-S MS and 460-155125-A-1-T MSD. Elevated reporting limits (RLs) are provided.

Method(s) 8015D: Surrogate recovery for o-Terphenyl in the following sample was outside control limits: 460-155226-4. Evidence of

# Case Narrative

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

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## Job ID: 460-155226-1 (Continued)

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### Laboratory: TestAmerica Edison (Continued)

matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Client Sample Results

Client: TRC Environmental Corporation  
 Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-11 (3-3.5)**

**Lab Sample ID: 460-155226-1**

**Date Collected: 05/02/18 10:10**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 93.2**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.012	U	0.044	0.012	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,1,2,2-Tetrachloroethane	0.0084	U	0.044	0.0084	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.015	U	0.044	0.015	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,1,2-Trichloroethane	0.0036	U	0.044	0.0036	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,1-Dichloroethane	0.011	U	0.044	0.011	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,1-Dichloroethene	0.015	U	0.044	0.015	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,2,4-Trichlorobenzene	0.012	U	0.044	0.012	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,2-Dibromo-3-Chloropropane	0.010	U	0.044	0.010	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,2-Dibromoethane	0.0084	U	0.044	0.0084	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,2-Dichlorobenzene	0.0098	U	0.044	0.0098	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,2-Dichloroethane	0.011	U	0.044	0.011	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,2-Dichloropropane	0.0080	U	0.044	0.0080	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,3-Dichlorobenzene	0.015	U	0.044	0.015	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
1,4-Dichlorobenzene	0.015	U	0.044	0.015	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
2-Butanone (MEK)	0.098	U	0.22	0.098	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
2-Hexanone	0.032	U	0.22	0.032	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
4-Methyl-2-pentanone (MIBK)	0.028	U	0.22	0.028	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Acetone	0.048	U	0.22	0.048	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Benzene	0.0084	U	0.044	0.0084	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Bromodichloromethane	0.0067	U	0.044	0.0067	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Bromoform	0.0080	U	0.044	0.0080	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Bromomethane	0.0080	U *	0.044	0.0080	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Carbon disulfide	0.0098	U	0.044	0.0098	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Carbon tetrachloride	0.015	U	0.044	0.015	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Chlorobenzene	0.011	U	0.044	0.011	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Chloroethane	0.016	U	0.044	0.016	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Chloroform	0.0098	U	0.044	0.0098	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Chloromethane	0.0098	U	0.044	0.0098	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
cis-1,2-Dichloroethene	0.012	U	0.044	0.012	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
cis-1,3-Dichloropropene	0.0071	U	0.044	0.0071	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Cyclohexane	0.012	U	0.044	0.012	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Dibromochloromethane	0.0098	U	0.044	0.0098	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Dichlorodifluoromethane	0.0062	U	0.044	0.0062	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Di-isopropyl ether (DIPE)	0.0062	U	0.044	0.0062	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Ethyl tert-Butyl Ether (ETBE)	0.0076	U	0.044	0.0076	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Ethylbenzene	0.013	U	0.044	0.013	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Isopropylbenzene	0.014	U	0.044	0.014	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Methyl acetate	0.026	U	0.22	0.026	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Methylcyclohexane	0.0098	U	0.044	0.0098	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Methylene Chloride	0.0093	U	0.044	0.0093	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Methyl-t-Butyl Ether (MTBE)	0.0058	U	0.044	0.0058	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
m-Xylene & p-Xylene	0.012	U	0.044	0.012	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Naphthalene	0.012	U	0.044	0.012	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
o-Xylene	0.014	U	0.044	0.014	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Styrene	0.0076	U	0.044	0.0076	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
tert-Amyl Methyl Ether (TAME)	0.0071	U	0.044	0.0071	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
tert-Butanol (TBA)	0.053	U	0.44	0.053	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Tetrachloroethene	0.016	U	0.044	0.016	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Toluene	0.011	U	0.044	0.011	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-11 (3-3.5)**

**Lab Sample ID: 460-155226-1**

Date Collected: 05/02/18 10:10

Matrix: Solid

Date Received: 05/03/18 09:15

Percent Solids: 93.2

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.0080	U	0.044	0.0080	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
trans-1,3-Dichloropropene	0.0084	U	0.044	0.0084	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
<b>Trichloroethene</b>	<b>0.014</b>	<b>J</b>	0.044	0.0098	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Trichlorofluoromethane	0.0067	U	0.044	0.0067	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50
Vinyl chloride	0.0089	U	0.044	0.0089	mg/Kg	☼	05/04/18 14:36	05/05/18 11:55	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		69 - 143	05/04/18 14:36	05/05/18 11:55	50
Toluene-d8 (Surr)	94		67 - 127	05/04/18 14:36	05/05/18 11:55	50
4-Bromofluorobenzene	121		61 - 137	05/04/18 14:36	05/05/18 11:55	50
Dibromofluoromethane (Surr)	107		61 - 135	05/04/18 14:36	05/05/18 11:55	50

**Method: 8015D - Gasoline Range Organics (GRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	2.4	U	2.4	2.4	mg/Kg	☼	05/04/18 11:47	05/04/18 21:12	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>			
a,a,a-Trifluorotoluene	99		80 - 135	05/04/18 11:47	05/04/18 21:12	50			

**Method: 8015D - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>C10-C44</b>	<b>20</b>		9.3	0.90	mg/Kg	☼	05/04/18 13:50	05/05/18 09:51	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>			
o-Terphenyl	54		11 - 126	05/04/18 13:50	05/05/18 09:51	1			

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture</b>	<b>6.8</b>		1.0	1.0	%			05/04/18 08:28	1
<b>Percent Solids</b>	<b>93.2</b>		1.0	1.0	%			05/04/18 08:28	1

**Client Sample ID: PX-OS-12 (3-3.5)**

**Lab Sample ID: 460-155226-2**

Date Collected: 05/02/18 10:15

Matrix: Solid

Date Received: 05/03/18 09:15

Percent Solids: 95.0

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.013	U	0.048	0.013	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,1,1,2-Tetrachloroethane	0.0091	U	0.048	0.0091	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.016	U	0.048	0.016	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,1,2-Trichloroethane	0.0038	U	0.048	0.0038	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,1-Dichloroethane	0.011	U	0.048	0.011	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,1-Dichloroethene	0.016	U	0.048	0.016	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,2,4-Trichlorobenzene	0.013	U	0.048	0.013	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,2-Dibromo-3-Chloropropane	0.011	U	0.048	0.011	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,2-Dibromoethane	0.0091	U	0.048	0.0091	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,2-Dichlorobenzene	0.011	U	0.048	0.011	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,2-Dichloroethane	0.012	U	0.048	0.012	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,2-Dichloropropane	0.0086	U	0.048	0.0086	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,3-Dichlorobenzene	0.016	U	0.048	0.016	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
1,4-Dichlorobenzene	0.016	U	0.048	0.016	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
 Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-12 (3-3.5)**

**Lab Sample ID: 460-155226-2**

**Date Collected: 05/02/18 10:15**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 95.0**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	0.11	U	0.24	0.11	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
2-Hexanone	0.034	U	0.24	0.034	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
4-Methyl-2-pentanone (MIBK)	0.030	U	0.24	0.030	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Acetone	0.051	U	0.24	0.051	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Benzene	0.0091	U	0.048	0.0091	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Bromodichloromethane	0.0072	U	0.048	0.0072	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Bromoform	0.0086	U	0.048	0.0086	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Bromomethane	0.0086	U *	0.048	0.0086	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Carbon disulfide	0.011	U	0.048	0.011	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Carbon tetrachloride	0.016	U	0.048	0.016	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Chlorobenzene	0.011	U	0.048	0.011	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Chloroethane	0.018	U	0.048	0.018	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Chloroform	0.011	U	0.048	0.011	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Chloromethane	0.011	U	0.048	0.011	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
cis-1,2-Dichloroethene	0.012	U	0.048	0.012	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
cis-1,3-Dichloropropene	0.0077	U	0.048	0.0077	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Cyclohexane	0.012	U	0.048	0.012	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Dibromochloromethane	0.011	U	0.048	0.011	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Dichlorodifluoromethane	0.0067	U	0.048	0.0067	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Di-isopropyl ether (DIPE)	0.0067	U	0.048	0.0067	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Ethyl tert-Butyl Ether (ETBE)	0.0081	U	0.048	0.0081	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Ethylbenzene	0.014	U	0.048	0.014	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Isopropylbenzene	0.015	U	0.048	0.015	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Methyl acetate	0.028	U	0.24	0.028	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Methylcyclohexane	0.011	U	0.048	0.011	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Methylene Chloride	0.010	U	0.048	0.010	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Methyl-t-Butyl Ether (MTBE)	0.0062	U	0.048	0.0062	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
m-Xylene & p-Xylene	0.013	U	0.048	0.013	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Naphthalene	0.012	U	0.048	0.012	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
o-Xylene	0.015	U	0.048	0.015	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Styrene	0.0081	U	0.048	0.0081	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
tert-Amyl Methyl Ether (TAME)	0.0077	U	0.048	0.0077	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
tert-Butanol (TBA)	0.057	U	0.48	0.057	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Tetrachloroethene	0.017	U	0.048	0.017	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Toluene	0.012	U	0.048	0.012	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
trans-1,2-Dichloroethene	0.0086	U	0.048	0.0086	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
trans-1,3-Dichloropropene	0.0091	U	0.048	0.0091	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Trichloroethene	0.011	U	0.048	0.011	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Trichlorofluoromethane	0.0072	U	0.048	0.0072	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50
Vinyl chloride	0.0096	U	0.048	0.0096	mg/Kg	☼	05/04/18 14:37	05/05/18 12:22	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		69 - 143	05/04/18 14:37	05/05/18 12:22	50
Toluene-d8 (Surr)	91		67 - 127	05/04/18 14:37	05/05/18 12:22	50
4-Bromofluorobenzene	121		61 - 137	05/04/18 14:37	05/05/18 12:22	50
Dibromofluoromethane (Surr)	104		61 - 135	05/04/18 14:37	05/05/18 12:22	50

**Method: 8015D - Gasoline Range Organics (GRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	2.4	U	2.4	2.4	mg/Kg	☼	05/04/18 11:48	05/04/18 21:38	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

## Client Sample ID: PX-OS-12 (3-3.5)

Date Collected: 05/02/18 10:15

Date Received: 05/03/18 09:15

## Lab Sample ID: 460-155226-2

Matrix: Solid

Percent Solids: 95.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	101		80 - 135	05/04/18 11:48	05/04/18 21:38	50

### Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C44	22		9.2	0.89	mg/Kg	☼	05/04/18 13:50	05/05/18 10:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	66		11 - 126	05/04/18 13:50	05/05/18 10:03	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	5.0		1.0	1.0	%			05/04/18 08:28	1
Percent Solids	95.0		1.0	1.0	%			05/04/18 08:28	1

## Client Sample ID: PX-OS-13 (3-3.5)

Date Collected: 05/02/18 10:24

Date Received: 05/03/18 09:15

## Lab Sample ID: 460-155226-3

Matrix: Solid

Percent Solids: 97.2

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.028	U	0.10	0.028	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,1,2,2-Tetrachloroethane	0.019	U	0.10	0.019	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.034	U	0.10	0.034	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,1,2-Trichloroethane	0.0080	U	0.10	0.0080	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,1-Dichloroethane	0.024	U	0.10	0.024	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,1-Dichloroethene	0.034	U	0.10	0.034	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,2,4-Trichlorobenzene	0.027	U	0.10	0.027	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,2-Dibromo-3-Chloropropane	0.023	U	0.10	0.023	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,2-Dibromoethane	0.019	U	0.10	0.019	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,2-Dichlorobenzene	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,2-Dichloroethane	0.025	U	0.10	0.025	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,2-Dichloropropane	0.018	U	0.10	0.018	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,3-Dichlorobenzene	0.033	U	0.10	0.033	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
1,4-Dichlorobenzene	0.033	U	0.10	0.033	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
2-Butanone (MEK)	0.22	U	0.50	0.22	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
2-Hexanone	0.072	U	0.50	0.072	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
4-Methyl-2-pentanone (MIBK)	0.063	U	0.50	0.063	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Acetone	0.11	U	0.50	0.11	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Benzene	0.019	U	0.10	0.019	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Bromodichloromethane	0.015	U	0.10	0.015	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Bromoform	0.018	U	0.10	0.018	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Bromomethane	0.018	U	0.10	0.018	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Carbon disulfide	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Carbon tetrachloride	0.033	U	0.10	0.033	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Chlorobenzene	0.024	U	0.10	0.024	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Chloroethane	0.037	U	0.10	0.037	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Chloroform	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Chloromethane	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
cis-1,2-Dichloroethene	0.026	U	0.10	0.026	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
cis-1,3-Dichloropropene	0.016	U	0.10	0.016	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Cyclohexane	0.026	U	0.10	0.026	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-13 (3-3.5)**

**Lab Sample ID: 460-155226-3**

**Date Collected: 05/02/18 10:24**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 97.2**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Dichlorodifluoromethane	0.014	U	0.10	0.014	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Di-isopropyl ether (DIPE)	0.014	U	0.10	0.014	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Ethyl tert-Butyl Ether (ETBE)	0.017	U	0.10	0.017	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Ethylbenzene	0.030	U	0.10	0.030	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Isopropylbenzene	0.032	U	0.10	0.032	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Methyl acetate	0.058	U	0.50	0.058	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Methylcyclohexane	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Methylene Chloride	0.021	U	0.10	0.021	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Methyl-t-Butyl Ether (MTBE)	0.013	U	0.10	0.013	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
m-Xylene & p-Xylene	0.028	U	0.10	0.028	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Naphthalene	0.026	U	0.10	0.026	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
o-Xylene	0.032	U	0.10	0.032	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Styrene	0.017	U	0.10	0.017	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
tert-Amyl Methyl Ether (TAME)	0.016	U	0.10	0.016	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
tert-Butanol (TBA)	0.12	U	1.0	0.12	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Tetrachloroethene	0.036	U	0.10	0.036	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Toluene	0.025	U	0.10	0.025	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
trans-1,2-Dichloroethene	0.018	U	0.10	0.018	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
trans-1,3-Dichloropropene	0.019	U	0.10	0.019	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Trichloroethene	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Trichlorofluoromethane	0.015	U	0.10	0.015	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50
Vinyl chloride	0.020	U	0.10	0.020	mg/Kg	☼	05/05/18 10:48	05/08/18 12:12	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		69 - 143	05/05/18 10:48	05/08/18 12:12	50
Toluene-d8 (Surr)	91		67 - 127	05/05/18 10:48	05/08/18 12:12	50
4-Bromofluorobenzene	90		61 - 137	05/05/18 10:48	05/08/18 12:12	50
Dibromofluoromethane (Surr)	104		61 - 135	05/05/18 10:48	05/08/18 12:12	50

## Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	2.4	U	2.4	2.4	mg/Kg	☼	05/04/18 11:49	05/04/18 22:05	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	101		80 - 135	05/04/18 11:49	05/04/18 22:05	50

## Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C44	40		9.0	0.87	mg/Kg	☼	05/04/18 13:50	05/05/18 10:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	76		11 - 126	05/04/18 13:50	05/05/18 10:16	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	2.8		1.0	1.0	%			05/04/18 08:28	1
Percent Solids	97.2		1.0	1.0	%			05/04/18 08:28	1

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
 Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-14 (3-3.5)**

**Lab Sample ID: 460-155226-4**

**Date Collected: 05/02/18 10:32**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 93.8**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.015	U	0.055	0.015	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,1,2,2-Tetrachloroethane	0.010	U	0.055	0.010	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.019	U	0.055	0.019	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,1,2-Trichloroethane	0.0044	U	0.055	0.0044	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,1-Dichloroethane	0.013	U	0.055	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,1-Dichloroethene	0.019	U	0.055	0.019	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,2,4-Trichlorobenzene	0.015	U	0.055	0.015	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,2-Dibromo-3-Chloropropane	0.013	U	0.055	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,2-Dibromoethane	0.010	U	0.055	0.010	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,2-Dichlorobenzene	0.012	U	0.055	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,2-Dichloroethane	0.014	U	0.055	0.014	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,2-Dichloropropane	0.0099	U	0.055	0.0099	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,3-Dichlorobenzene	0.018	U	0.055	0.018	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
1,4-Dichlorobenzene	0.018	U	0.055	0.018	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
2-Butanone (MEK)	0.12	U	0.27	0.12	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
2-Hexanone	0.039	U	0.27	0.039	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
4-Methyl-2-pentanone (MIBK)	0.035	U	0.27	0.035	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Acetone	0.059	U	0.27	0.059	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Benzene	0.010	U	0.055	0.010	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Bromodichloromethane	0.0082	U	0.055	0.0082	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Bromoform	0.0099	U	0.055	0.0099	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Bromomethane	0.0099	U *	0.055	0.0099	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Carbon disulfide	0.012	U	0.055	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Carbon tetrachloride	0.018	U	0.055	0.018	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Chlorobenzene	0.013	U	0.055	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Chloroethane	0.020	U	0.055	0.020	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Chloroform	0.012	U	0.055	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Chloromethane	0.012	U	0.055	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
cis-1,2-Dichloroethene	0.014	U	0.055	0.014	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
cis-1,3-Dichloropropene	0.0088	U	0.055	0.0088	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Cyclohexane	0.014	U	0.055	0.014	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Dibromochloromethane	0.012	U	0.055	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Dichlorodifluoromethane	0.0077	U	0.055	0.0077	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Di-isopropyl ether (DIPE)	0.0077	U	0.055	0.0077	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Ethyl tert-Butyl Ether (ETBE)	0.0093	U	0.055	0.0093	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
<b>Ethylbenzene</b>	<b>0.027</b>	<b>J</b>	0.055	0.016	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
<b>Isopropylbenzene</b>	<b>0.028</b>	<b>J</b>	0.055	0.018	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Methyl acetate	0.032	U	0.27	0.032	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
<b>Methylcyclohexane</b>	<b>0.026</b>	<b>J</b>	0.055	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Methylene Chloride	0.012	U	0.055	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Methyl-t-Butyl Ether (MTBE)	0.0071	U	0.055	0.0071	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
<b>m-Xylene &amp; p-Xylene</b>	<b>0.11</b>		0.055	0.015	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
<b>Naphthalene</b>	<b>0.30</b>	<b>B</b>	0.055	0.014	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
<b>o-Xylene</b>	<b>0.068</b>		0.055	0.018	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Styrene	0.0093	U	0.055	0.0093	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
tert-Amyl Methyl Ether (TAME)	0.0088	U	0.055	0.0088	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
tert-Butanol (TBA)	0.066	U	0.55	0.066	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Tetrachloroethene	0.020	U	0.055	0.020	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
<b>Toluene</b>	<b>0.014</b>	<b>J</b>	0.055	0.014	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-14 (3-3.5)**

**Lab Sample ID: 460-155226-4**

Date Collected: 05/02/18 10:32

Matrix: Solid

Date Received: 05/03/18 09:15

Percent Solids: 93.8

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.0099	U	0.055	0.0099	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
trans-1,3-Dichloropropene	0.010	U	0.055	0.010	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Trichloroethene	0.012	U	0.055	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Trichlorofluoromethane	0.0082	U	0.055	0.0082	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50
Vinyl chloride	0.011	U	0.055	0.011	mg/Kg	☼	05/04/18 14:38	05/05/18 12:50	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		69 - 143	05/04/18 14:38	05/05/18 12:50	50
Toluene-d8 (Surr)	91		67 - 127	05/04/18 14:38	05/05/18 12:50	50
4-Bromofluorobenzene	117		61 - 137	05/04/18 14:38	05/05/18 12:50	50
Dibromofluoromethane (Surr)	105		61 - 135	05/04/18 14:38	05/05/18 12:50	50

**Method: 8015D - Gasoline Range Organics (GRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	13		2.6	2.6	mg/Kg	☼	05/04/18 11:51	05/04/18 22:32	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		80 - 135	05/04/18 11:51	05/04/18 22:32	50

**Method: 8015D - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C44	270		9.3	0.90	mg/Kg	☼	05/04/18 13:50	05/05/18 10:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	136	X	11 - 126	05/04/18 13:50	05/05/18 10:28	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.2		1.0	1.0	%			05/04/18 08:28	1
Percent Solids	93.8		1.0	1.0	%			05/04/18 08:28	1

**Client Sample ID: PX-OS-15 (2-2.5)**

**Lab Sample ID: 460-155226-5**

Date Collected: 05/02/18 10:43

Matrix: Solid

Date Received: 05/03/18 09:15

Percent Solids: 93.9

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.027	U	0.095	0.027	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,1,1,2-Tetrachloroethane	0.018	U	0.095	0.018	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.032	U	0.095	0.032	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,1,2-Trichloroethane	0.0076	U	0.095	0.0076	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,1-Dichloroethane	0.023	U	0.095	0.023	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,1-Dichloroethene	0.032	U	0.095	0.032	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,2,4-Trichlorobenzene	0.026	U	0.095	0.026	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,2-Dibromo-3-Chloropropane	0.022	U	0.095	0.022	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,2-Dibromoethane	0.018	U	0.095	0.018	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,2-Dichlorobenzene	0.021	U	0.095	0.021	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,2-Dichloroethane	0.024	U	0.095	0.024	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,2-Dichloropropane	0.017	U	0.095	0.017	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,3-Dichlorobenzene	0.031	U	0.095	0.031	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
1,4-Dichlorobenzene	0.031	U	0.095	0.031	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-15 (2-2.5)**

**Lab Sample ID: 460-155226-5**

**Date Collected: 05/02/18 10:43**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 93.9**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	0.21	U	0.48	0.21	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
2-Hexanone	0.069	U	0.48	0.069	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
4-Methyl-2-pentanone (MIBK)	0.060	U	0.48	0.060	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Acetone	0.10	U	0.48	0.10	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Benzene	0.018	U	0.095	0.018	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Bromodichloromethane	0.014	U	0.095	0.014	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Bromoform	0.017	U	0.095	0.017	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Bromomethane	0.017	U *	0.095	0.017	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Carbon disulfide	0.021	U	0.095	0.021	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Carbon tetrachloride	0.031	U	0.095	0.031	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Chlorobenzene	0.023	U	0.095	0.023	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Chloroethane	0.035	U	0.095	0.035	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Chloroform	0.021	U	0.095	0.021	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Chloromethane	0.021	U	0.095	0.021	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
cis-1,2-Dichloroethene	0.025	U	0.095	0.025	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
cis-1,3-Dichloropropene	0.015	U	0.095	0.015	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Cyclohexane	0.025	U	0.095	0.025	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Dibromochloromethane	0.021	U	0.095	0.021	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Dichlorodifluoromethane	0.013	U	0.095	0.013	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Di-isopropyl ether (DIPE)	0.013	U	0.095	0.013	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Ethyl tert-Butyl Ether (ETBE)	0.016	U	0.095	0.016	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Ethylbenzene	0.029	U	0.095	0.029	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Isopropylbenzene	0.031	U	0.095	0.031	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Methyl acetate	0.055	U	0.48	0.055	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Methylcyclohexane	0.021	U	0.095	0.021	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Methylene Chloride	0.020	U	0.095	0.020	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Methyl-t-Butyl Ether (MTBE)	0.012	U	0.095	0.012	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
m-Xylene & p-Xylene	0.027	U	0.095	0.027	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Naphthalene	0.025	U	0.095	0.025	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
o-Xylene	0.031	U	0.095	0.031	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Styrene	0.016	U	0.095	0.016	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
tert-Amyl Methyl Ether (TAME)	0.015	U	0.095	0.015	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
tert-Butanol (TBA)	0.11	U	0.95	0.11	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Tetrachloroethene	0.034	U	0.095	0.034	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Toluene	0.024	U	0.095	0.024	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
trans-1,2-Dichloroethene	0.017	U	0.095	0.017	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
trans-1,3-Dichloropropene	0.018	U	0.095	0.018	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Trichloroethene	0.021	U	0.095	0.021	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Trichlorofluoromethane	0.014	U	0.095	0.014	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50
Vinyl chloride	0.019	U	0.095	0.019	mg/Kg	☼	05/05/18 10:49	05/05/18 15:09	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	131		69 - 143	05/05/18 10:49	05/05/18 15:09	50
Toluene-d8 (Surr)	100		67 - 127	05/05/18 10:49	05/05/18 15:09	50
4-Bromofluorobenzene	111		61 - 137	05/05/18 10:49	05/05/18 15:09	50
Dibromofluoromethane (Surr)	122		61 - 135	05/05/18 10:49	05/05/18 15:09	50

**Method: 8015D - Gasoline Range Organics (GRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	2.6	U	2.6	2.6	mg/Kg	☼	05/04/18 11:52	05/08/18 14:37	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

## Client Sample ID: PX-OS-15 (2-2.5)

Date Collected: 05/02/18 10:43

Date Received: 05/03/18 09:15

## Lab Sample ID: 460-155226-5

Matrix: Solid

Percent Solids: 93.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		80 - 135	05/04/18 11:52	05/08/18 14:37	50

### Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C44	85		9.3	0.90	mg/Kg	☼	05/04/18 13:50	05/05/18 10:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	87		11 - 126	05/04/18 13:50	05/05/18 10:41	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.1		1.0	1.0	%			05/04/18 08:28	1
Percent Solids	93.9		1.0	1.0	%			05/04/18 08:28	1

## Client Sample ID: PX-OS-16 (2-2.5)

Date Collected: 05/02/18 10:55

Date Received: 05/03/18 09:15

## Lab Sample ID: 460-155226-6

Matrix: Solid

Percent Solids: 84.2

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.017	U	0.061	0.017	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,1,2,2-Tetrachloroethane	0.012	U	0.061	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.021	U	0.061	0.021	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,1,2-Trichloroethane	0.0049	U	0.061	0.0049	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,1-Dichloroethane	0.015	U	0.061	0.015	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,1-Dichloroethene	0.021	U	0.061	0.021	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,2,4-Trichlorobenzene	0.016	U	0.061	0.016	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,2-Dibromo-3-Chloropropane	0.014	U	0.061	0.014	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,2-Dibromoethane	0.012	U	0.061	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,2-Dichlorobenzene	0.013	U	0.061	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,2-Dichloroethane	0.015	U	0.061	0.015	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,2-Dichloropropane	0.011	U	0.061	0.011	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,3-Dichlorobenzene	0.020	U	0.061	0.020	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
1,4-Dichlorobenzene	0.020	U	0.061	0.020	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
2-Butanone (MEK)	0.13	U	0.30	0.13	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
2-Hexanone	0.044	U	0.30	0.044	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
4-Methyl-2-pentanone (MIBK)	0.038	U	0.30	0.038	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Acetone	0.065	U	0.30	0.065	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Benzene	0.012	U	0.061	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Bromodichloromethane	0.0091	U	0.061	0.0091	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Bromoform	0.011	U	0.061	0.011	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Bromomethane	0.011	U *	0.061	0.011	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Carbon disulfide	0.013	U	0.061	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Carbon tetrachloride	0.020	U	0.061	0.020	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Chlorobenzene	0.015	U	0.061	0.015	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Chloroethane	0.023	U	0.061	0.023	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Chloroform	0.013	U	0.061	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Chloromethane	0.013	U	0.061	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
cis-1,2-Dichloroethene	0.016	U	0.061	0.016	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
cis-1,3-Dichloropropene	0.0098	U	0.061	0.0098	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Cyclohexane	0.016	J	0.061	0.016	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-16 (2-2.5)**

**Lab Sample ID: 460-155226-6**

**Date Collected: 05/02/18 10:55**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 84.2**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	0.013	U	0.061	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Dichlorodifluoromethane	0.0085	U	0.061	0.0085	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Di-isopropyl ether (DIPE)	0.0085	U	0.061	0.0085	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Ethyl tert-Butyl Ether (ETBE)	0.010	U	0.061	0.010	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
<b>Ethylbenzene</b>	<b>0.30</b>		0.061	0.018	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
<b>Isopropylbenzene</b>	<b>0.30</b>		0.061	0.020	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
<b>Methyl acetate</b>	<b>0.068</b>	<b>J</b>	0.30	0.035	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
<b>Methylcyclohexane</b>	<b>0.27</b>		0.061	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Methylene Chloride	0.013	U	0.061	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Methyl-t-Butyl Ether (MTBE)	0.0079	U	0.061	0.0079	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
<b>m-Xylene &amp; p-Xylene</b>	<b>1.3</b>		0.061	0.017	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
<b>Naphthalene</b>	<b>1.9</b>	<b>B</b>	0.061	0.016	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
<b>o-Xylene</b>	<b>0.87</b>		0.061	0.020	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Styrene	0.010	U	0.061	0.010	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
tert-Amyl Methyl Ether (TAME)	0.0098	U	0.061	0.0098	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
tert-Butanol (TBA)	0.073	U	0.61	0.073	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Tetrachloroethene	0.022	U	0.061	0.022	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
<b>Toluene</b>	<b>0.11</b>		0.061	0.015	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
trans-1,2-Dichloroethene	0.011	U	0.061	0.011	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
trans-1,3-Dichloropropene	0.012	U	0.061	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Trichloroethene	0.013	U	0.061	0.013	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
<b>Trichlorofluoromethane</b>	<b>0.094</b>		0.061	0.0091	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50
Vinyl chloride	0.012	U	0.061	0.012	mg/Kg	☼	05/04/18 14:38	05/05/18 13:46	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		69 - 143	05/04/18 14:38	05/05/18 13:46	50
Toluene-d8 (Surr)	91		67 - 127	05/04/18 14:38	05/05/18 13:46	50
4-Bromofluorobenzene	116		61 - 137	05/04/18 14:38	05/05/18 13:46	50
Dibromofluoromethane (Surr)	103		61 - 135	05/04/18 14:38	05/05/18 13:46	50

## Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>GRO</b>	<b>57</b>		2.8	2.8	mg/Kg	☼	05/04/18 11:53	05/04/18 23:25	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		80 - 135	05/04/18 11:53	05/04/18 23:25	50

## Method: 8015D - Diesel Range Organics (DRO) (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>C10-C44</b>	<b>800</b>	<b>D</b>	52	5.0	mg/Kg	☼	05/04/18 13:50	05/05/18 15:25	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93	<b>D</b>	11 - 126	05/04/18 13:50	05/05/18 15:25	5

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture</b>	<b>15.8</b>		1.0	1.0	%			05/04/18 08:28	1
<b>Percent Solids</b>	<b>84.2</b>		1.0	1.0	%			05/04/18 08:28	1

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
 Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-17 (2-2.5)**

**Lab Sample ID: 460-155226-7**

**Date Collected: 05/02/18 11:03**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 84.4**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.019	U	0.068	0.019	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,1,2,2-Tetrachloroethane	0.013	U	0.068	0.013	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.023	U	0.068	0.023	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,1,2-Trichloroethane	0.0054	U	0.068	0.0054	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,1-Dichloroethane	0.016	U	0.068	0.016	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,1-Dichloroethene	0.023	U	0.068	0.023	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,2,4-Trichlorobenzene	0.018	U	0.068	0.018	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,2-Dibromo-3-Chloropropane	0.016	U	0.068	0.016	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,2-Dibromoethane	0.013	U	0.068	0.013	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,2-Dichlorobenzene	0.015	U	0.068	0.015	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,2-Dichloroethane	0.017	U	0.068	0.017	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,2-Dichloropropane	0.012	U	0.068	0.012	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,3-Dichlorobenzene	0.022	U	0.068	0.022	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
1,4-Dichlorobenzene	0.022	U	0.068	0.022	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
2-Butanone (MEK)	0.15	U	0.34	0.15	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
2-Hexanone	0.049	U	0.34	0.049	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
4-Methyl-2-pentanone (MIBK)	0.043	U	0.34	0.043	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Acetone	0.072	U	0.34	0.072	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Benzene	0.013	U	0.068	0.013	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Bromodichloromethane	0.010	U	0.068	0.010	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Bromoform	0.012	U	0.068	0.012	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Bromomethane	0.012	U *	0.068	0.012	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Carbon disulfide	0.015	U	0.068	0.015	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Carbon tetrachloride	0.022	U	0.068	0.022	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Chlorobenzene	0.016	U	0.068	0.016	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Chloroethane	0.025	U	0.068	0.025	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Chloroform	0.015	U	0.068	0.015	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Chloromethane	0.015	U	0.068	0.015	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
cis-1,2-Dichloroethene	0.018	U	0.068	0.018	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
cis-1,3-Dichloropropene	0.011	U	0.068	0.011	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Cyclohexane	0.018	U	0.068	0.018	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Dibromochloromethane	0.015	U	0.068	0.015	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Dichlorodifluoromethane	0.0095	U	0.068	0.0095	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Di-isopropyl ether (DIPE)	0.0095	U	0.068	0.0095	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Ethyl tert-Butyl Ether (ETBE)	0.011	U	0.068	0.011	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Ethylbenzene	0.020	U	0.068	0.020	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Isopropylbenzene	0.022	U	0.068	0.022	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
<b>Methyl acetate</b>	<b>0.049</b>	<b>J</b>	0.34	0.039	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Methylcyclohexane	0.015	U	0.068	0.015	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Methylene Chloride	0.014	U	0.068	0.014	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Methyl-t-Butyl Ether (MTBE)	0.0088	U	0.068	0.0088	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
<b>m-Xylene &amp; p-Xylene</b>	<b>0.063</b>	<b>J</b>	0.068	0.019	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
<b>Naphthalene</b>	<b>0.13</b>	<b>B</b>	0.068	0.018	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
<b>o-Xylene</b>	<b>0.051</b>	<b>J</b>	0.068	0.022	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Styrene	0.011	U	0.068	0.011	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
tert-Amyl Methyl Ether (TAME)	0.011	U	0.068	0.011	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
tert-Butanol (TBA)	0.081	U	0.68	0.081	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Tetrachloroethene	0.024	U	0.068	0.024	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Toluene	0.017	U	0.068	0.017	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-17 (2-2.5)**

**Lab Sample ID: 460-155226-7**

Date Collected: 05/02/18 11:03

Matrix: Solid

Date Received: 05/03/18 09:15

Percent Solids: 84.4

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.012	U	0.068	0.012	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
trans-1,3-Dichloropropene	0.013	U	0.068	0.013	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Trichloroethene	0.015	U	0.068	0.015	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Trichlorofluoromethane	0.010	U	0.068	0.010	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50
Vinyl chloride	0.014	U	0.068	0.014	mg/Kg	☼	05/04/18 14:39	05/05/18 13:18	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		69 - 143	05/04/18 14:39	05/05/18 13:18	50
Toluene-d8 (Surr)	93		67 - 127	05/04/18 14:39	05/05/18 13:18	50
4-Bromofluorobenzene	118		61 - 137	05/04/18 14:39	05/05/18 13:18	50
Dibromofluoromethane (Surr)	101		61 - 135	05/04/18 14:39	05/05/18 13:18	50

**Method: 8015D - Gasoline Range Organics (GRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	3.5		2.8	2.8	mg/Kg	☼	05/04/18 11:55	05/08/18 15:56	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		80 - 135	05/04/18 11:55	05/08/18 15:56	50

**Method: 8015D - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C44	150		10	1.0	mg/Kg	☼	05/04/18 13:50	05/05/18 11:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	78		11 - 126	05/04/18 13:50	05/05/18 11:06	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.6		1.0	1.0	%			05/04/18 08:28	1
Percent Solids	84.4		1.0	1.0	%			05/04/18 08:28	1

**Client Sample ID: PX-OS-18 (2-2.5)**

**Lab Sample ID: 460-155226-8**

Date Collected: 05/02/18 11:10

Matrix: Solid

Date Received: 05/03/18 09:15

Percent Solids: 92.7

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.026	U	0.093	0.026	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,1,1,2-Tetrachloroethane	0.018	U	0.093	0.018	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.032	U	0.093	0.032	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,1,2-Trichloroethane	0.0075	U	0.093	0.0075	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,1-Dichloroethane	0.022	U	0.093	0.022	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,1-Dichloroethene	0.032	U	0.093	0.032	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,2,4-Trichlorobenzene	0.025	U	0.093	0.025	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,2-Dibromo-3-Chloropropane	0.021	U	0.093	0.021	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,2-Dibromoethane	0.018	U	0.093	0.018	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,2-Dichlorobenzene	0.021	U	0.093	0.021	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,2-Dichloroethane	0.023	U	0.093	0.023	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,2-Dichloropropane	0.017	U	0.093	0.017	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,3-Dichlorobenzene	0.031	U	0.093	0.031	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
1,4-Dichlorobenzene	0.031	U	0.093	0.031	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-18 (2-2.5)**

**Lab Sample ID: 460-155226-8**

**Date Collected: 05/02/18 11:10**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 92.7**

**Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	0.21	U	0.47	0.21	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
2-Hexanone	0.067	U	0.47	0.067	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
4-Methyl-2-pentanone (MIBK)	0.059	U	0.47	0.059	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Acetone	0.10	U	0.47	0.10	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Benzene	0.018	U	0.093	0.018	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Bromodichloromethane	0.014	U	0.093	0.014	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Bromoform	0.017	U	0.093	0.017	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Bromomethane	0.017	U *	0.093	0.017	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Carbon disulfide	0.021	U	0.093	0.021	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Carbon tetrachloride	0.031	U	0.093	0.031	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Chlorobenzene	0.022	U	0.093	0.022	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Chloroethane	0.035	U	0.093	0.035	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Chloroform	0.021	U	0.093	0.021	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Chloromethane	0.021	U	0.093	0.021	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
cis-1,2-Dichloroethene	0.024	U	0.093	0.024	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
cis-1,3-Dichloropropene	0.015	U	0.093	0.015	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Cyclohexane	0.024	U	0.093	0.024	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Dibromochloromethane	0.021	U	0.093	0.021	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Dichlorodifluoromethane	0.013	U	0.093	0.013	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Di-isopropyl ether (DIPE)	0.013	U	0.093	0.013	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Ethyl tert-Butyl Ether (ETBE)	0.016	U	0.093	0.016	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
<b>Ethylbenzene</b>	<b>0.13</b>		0.093	0.028	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
<b>Isopropylbenzene</b>	<b>0.16</b>		0.093	0.030	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Methyl acetate	0.054	U	0.47	0.054	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
<b>Methylcyclohexane</b>	<b>0.075</b>	<b>J</b>	0.093	0.021	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Methylene Chloride	0.020	U	0.093	0.020	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Methyl-t-Butyl Ether (MTBE)	0.012	U	0.093	0.012	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
<b>m-Xylene &amp; p-Xylene</b>	<b>0.54</b>		0.093	0.026	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
<b>Naphthalene</b>	<b>0.73</b>	<b>B</b>	0.093	0.024	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
<b>o-Xylene</b>	<b>0.47</b>		0.093	0.030	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Styrene	0.016	U	0.093	0.016	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
tert-Amyl Methyl Ether (TAME)	0.015	U	0.093	0.015	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
tert-Butanol (TBA)	0.11	U	0.93	0.11	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Tetrachloroethene	0.034	U	0.093	0.034	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
<b>Toluene</b>	<b>0.032</b>	<b>J</b>	0.093	0.023	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
trans-1,2-Dichloroethene	0.017	U	0.093	0.017	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
trans-1,3-Dichloropropene	0.018	U	0.093	0.018	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Trichloroethene	0.021	U	0.093	0.021	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Trichlorofluoromethane	0.014	U	0.093	0.014	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50
Vinyl chloride	0.019	U	0.093	0.019	mg/Kg	☼	05/05/18 10:50	05/05/18 15:37	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	129		69 - 143	05/05/18 10:50	05/05/18 15:37	50
Toluene-d8 (Surr)	102		67 - 127	05/05/18 10:50	05/05/18 15:37	50
4-Bromofluorobenzene	110		61 - 137	05/05/18 10:50	05/05/18 15:37	50
Dibromofluoromethane (Surr)	122		61 - 135	05/05/18 10:50	05/05/18 15:37	50

**Method: 8015D - Gasoline Range Organics (GRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>GRO</b>	<b>65</b>		2.5	2.5	mg/Kg	☼	05/04/18 11:56	05/05/18 00:19	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

## Client Sample ID: PX-OS-18 (2-2.5)

Date Collected: 05/02/18 11:10

Date Received: 05/03/18 09:15

## Lab Sample ID: 460-155226-8

Matrix: Solid

Percent Solids: 92.7

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	102		80 - 135	05/04/18 11:56	05/05/18 00:19	50

### Method: 8015D - Diesel Range Organics (DRO) (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C44	620	D	47	4.5	mg/Kg	☼	05/04/18 13:50	05/05/18 15:38	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	98	D	11 - 126	05/04/18 13:50	05/05/18 15:38	5

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.3		1.0	1.0	%			05/04/18 08:28	1
Percent Solids	92.7		1.0	1.0	%			05/04/18 08:28	1

## Client Sample ID: PX-OS-19 (2-2.5)

Date Collected: 05/02/18 11:20

Date Received: 05/03/18 09:15

## Lab Sample ID: 460-155226-9

Matrix: Solid

Percent Solids: 83.4

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.030	U	0.11	0.030	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,1,2,2-Tetrachloroethane	0.021	U	0.11	0.021	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.037	U	0.11	0.037	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,1,2-Trichloroethane	0.0087	U	0.11	0.0087	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,1-Dichloroethane	0.026	U	0.11	0.026	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,1-Dichloroethene	0.037	U	0.11	0.037	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,2,4-Trichlorobenzene	0.029	U	0.11	0.029	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,2-Dibromo-3-Chloropropane	0.025	U	0.11	0.025	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,2-Dibromoethane	0.021	U	0.11	0.021	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,2-Dichlorobenzene	0.024	U	0.11	0.024	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,2-Dichloroethane	0.027	U	0.11	0.027	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,2-Dichloropropane	0.020	U	0.11	0.020	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,3-Dichlorobenzene	0.036	U	0.11	0.036	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
1,4-Dichlorobenzene	0.036	U	0.11	0.036	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
2-Butanone (MEK)	0.24	U	0.54	0.24	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
2-Hexanone	0.078	U	0.54	0.078	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
4-Methyl-2-pentanone (MIBK)	0.069	U	0.54	0.069	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Acetone	0.12	U	0.54	0.12	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Benzene	0.021	U	0.11	0.021	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Bromodichloromethane	0.016	U	0.11	0.016	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Bromoform	0.020	U	0.11	0.020	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Bromomethane	0.020	U	0.11	0.020	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Carbon disulfide	0.024	U	0.11	0.024	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Carbon tetrachloride	0.036	U	0.11	0.036	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Chlorobenzene	0.026	U	0.11	0.026	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Chloroethane	0.040	U	0.11	0.040	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Chloroform	0.024	U	0.11	0.024	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Chloromethane	0.024	U	0.11	0.024	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
cis-1,2-Dichloroethene	0.028	U	0.11	0.028	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
cis-1,3-Dichloropropene	0.017	U	0.11	0.017	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Cyclohexane	0.028	U	0.11	0.028	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-19 (2-2.5)**

**Lab Sample ID: 460-155226-9**

**Date Collected: 05/02/18 11:20**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 83.4**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	0.024	U	0.11	0.024	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Dichlorodifluoromethane	0.015	U	0.11	0.015	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Di-isopropyl ether (DIPE)	0.015	U	0.11	0.015	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Ethyl tert-Butyl Ether (ETBE)	0.019	U	0.11	0.019	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Ethylbenzene	0.033	U	0.11	0.033	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Isopropylbenzene	0.035	U	0.11	0.035	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Methyl acetate	0.063	U	0.54	0.063	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Methylcyclohexane	0.024	U	0.11	0.024	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
<b>Methylene Chloride</b>	<b>0.023</b>	<b>J</b>	0.11	0.023	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Methyl-t-Butyl Ether (MTBE)	0.014	U	0.11	0.014	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
m-Xylene & p-Xylene	0.030	U	0.11	0.030	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Naphthalene	0.028	U	0.11	0.028	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
o-Xylene	0.035	U	0.11	0.035	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Styrene	0.019	U	0.11	0.019	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
tert-Amyl Methyl Ether (TAME)	0.017	U	0.11	0.017	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
tert-Butanol (TBA)	0.13	U	1.1	0.13	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Tetrachloroethene	0.039	U	0.11	0.039	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Toluene	0.027	U	0.11	0.027	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
trans-1,2-Dichloroethene	0.020	U	0.11	0.020	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
trans-1,3-Dichloropropene	0.021	U	0.11	0.021	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Trichloroethene	0.024	U	0.11	0.024	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Trichlorofluoromethane	0.016	U	0.11	0.016	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50
Vinyl chloride	0.022	U	0.11	0.022	mg/Kg	☼	05/05/18 10:51	05/08/18 12:34	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		69 - 143	05/05/18 10:51	05/08/18 12:34	50
Toluene-d8 (Surr)	84		67 - 127	05/05/18 10:51	05/08/18 12:34	50
4-Bromofluorobenzene	85		61 - 137	05/05/18 10:51	05/08/18 12:34	50
Dibromofluoromethane (Surr)	97		61 - 135	05/05/18 10:51	05/08/18 12:34	50

## Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	2.6	U	2.6	2.6	mg/Kg	☼	05/04/18 11:57	05/08/18 15:29	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		80 - 135	05/04/18 11:57	05/08/18 15:29	50

## Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>C10-C44</b>	<b>130</b>		10	1.0	mg/Kg	☼	05/04/18 13:50	05/05/18 11:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	66		11 - 126	05/04/18 13:50	05/05/18 11:31	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture</b>	<b>16.6</b>		1.0	1.0	%			05/04/18 08:28	1
<b>Percent Solids</b>	<b>83.4</b>		1.0	1.0	%			05/04/18 08:28	1

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
 Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-20 (1.5-2)**

**Lab Sample ID: 460-155226-10**

**Date Collected: 05/02/18 11:32**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 95.8**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.028	U	0.10	0.028	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,1,2,2-Tetrachloroethane	0.019	U	0.10	0.019	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,1,2-Trichloro-1,2,2-trifluoroethane	0.034	U	0.10	0.034	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,1,2-Trichloroethane	0.0080	U	0.10	0.0080	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,1-Dichloroethane	0.024	U	0.10	0.024	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,1-Dichloroethene	0.034	U	0.10	0.034	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,2,4-Trichlorobenzene	0.027	U	0.10	0.027	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,2-Dibromo-3-Chloropropane	0.023	U	0.10	0.023	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,2-Dibromoethane	0.019	U	0.10	0.019	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,2-Dichlorobenzene	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,2-Dichloroethane	0.025	U	0.10	0.025	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,2-Dichloropropane	0.018	U	0.10	0.018	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,3-Dichlorobenzene	0.033	U	0.10	0.033	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
1,4-Dichlorobenzene	0.033	U	0.10	0.033	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
2-Butanone (MEK)	0.22	U	0.50	0.22	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
2-Hexanone	0.072	U	0.50	0.072	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
4-Methyl-2-pentanone (MIBK)	0.063	U	0.50	0.063	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Acetone	0.11	U	0.50	0.11	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Benzene	0.019	U	0.10	0.019	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Bromodichloromethane	0.015	U	0.10	0.015	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Bromoform	0.018	U	0.10	0.018	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Bromomethane	0.018	U	0.10	0.018	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Carbon disulfide	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Carbon tetrachloride	0.033	U	0.10	0.033	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Chlorobenzene	0.024	U	0.10	0.024	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Chloroethane	0.037	U	0.10	0.037	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Chloroform	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Chloromethane	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
cis-1,2-Dichloroethene	0.026	U	0.10	0.026	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
cis-1,3-Dichloropropene	0.016	U	0.10	0.016	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Cyclohexane	0.026	U	0.10	0.026	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Dibromochloromethane	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Dichlorodifluoromethane	0.014	U	0.10	0.014	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Di-isopropyl ether (DIPE)	0.014	U	0.10	0.014	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Ethyl tert-Butyl Ether (ETBE)	0.017	U	0.10	0.017	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Ethylbenzene	0.030	U	0.10	0.030	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Isopropylbenzene	0.032	U	0.10	0.032	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Methyl acetate	0.058	U	0.50	0.058	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Methylcyclohexane	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Methylene Chloride	0.021	U	0.10	0.021	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Methyl-t-Butyl Ether (MTBE)	0.013	U	0.10	0.013	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
m-Xylene & p-Xylene	0.028	U	0.10	0.028	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Naphthalene	0.026	U	0.10	0.026	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
o-Xylene	0.032	U	0.10	0.032	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Styrene	0.017	U	0.10	0.017	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
tert-Amyl Methyl Ether (TAME)	0.016	U	0.10	0.016	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
tert-Butanol (TBA)	0.12	U	1.0	0.12	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Tetrachloroethene	0.036	U	0.10	0.036	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Toluene	0.025	U	0.10	0.025	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50

TestAmerica Edison

# Client Sample Results

Client: TRC Environmental Corporation  
 Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-20 (1.5-2)**

**Lab Sample ID: 460-155226-10**

**Date Collected: 05/02/18 11:32**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 95.8**

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.018	U	0.10	0.018	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
trans-1,3-Dichloropropene	0.019	U	0.10	0.019	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Trichloroethene	0.022	U	0.10	0.022	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Trichlorofluoromethane	0.015	U	0.10	0.015	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50
Vinyl chloride	0.020	U	0.10	0.020	mg/Kg	☼	05/05/18 10:52	05/08/18 12:57	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		69 - 143	05/05/18 10:52	05/08/18 12:57	50
Toluene-d8 (Surr)	92		67 - 127	05/05/18 10:52	05/08/18 12:57	50
4-Bromofluorobenzene	95		61 - 137	05/05/18 10:52	05/08/18 12:57	50
Dibromofluoromethane (Surr)	103		61 - 135	05/05/18 10:52	05/08/18 12:57	50

## Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO	2.4	U	2.4	2.4	mg/Kg	☼	05/04/18 11:58	05/08/18 15:03	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	99		80 - 135	05/04/18 11:58	05/08/18 15:03	50

## Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>C10-C44</b>	<b>18</b>		9.1	0.88	mg/Kg	☼	05/04/18 13:55	05/05/18 12:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	56		11 - 126	05/04/18 13:55	05/05/18 12:08	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture</b>	<b>4.2</b>		1.0	1.0	%			05/04/18 08:28	1
<b>Percent Solids</b>	<b>95.8</b>		1.0	1.0	%			05/04/18 08:28	1

# Lab Chronicle

Client: TRC Environmental Corporation  
 Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-11 (3-3.5)**

**Date Collected: 05/02/18 10:10**

**Date Received: 05/03/18 09:15**

**Lab Sample ID: 460-155226-1**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	516464	05/04/18 08:28	BJP	TAL EDI

**Client Sample ID: PX-OS-11 (3-3.5)**

**Date Collected: 05/02/18 10:10**

**Date Received: 05/03/18 09:15**

**Lab Sample ID: 460-155226-1**

**Matrix: Solid**

**Percent Solids: 93.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			516581	05/04/18 14:36	DBM	TAL EDI
Total/NA	Analysis	8260C		50	516715	05/05/18 11:55	AAT	TAL EDI
Total/NA	Prep	5035			516541	05/04/18 11:47	DBM	TAL EDI
Total/NA	Analysis	8015D		50	516583	05/04/18 21:12	EMM	TAL EDI
Total/NA	Prep	3546			516569	05/04/18 13:50	SOK	TAL EDI
Total/NA	Analysis	8015D		1	516721	05/05/18 09:51	BWM	TAL EDI

**Client Sample ID: PX-OS-12 (3-3.5)**

**Date Collected: 05/02/18 10:15**

**Date Received: 05/03/18 09:15**

**Lab Sample ID: 460-155226-2**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	516464	05/04/18 08:28	BJP	TAL EDI

**Client Sample ID: PX-OS-12 (3-3.5)**

**Date Collected: 05/02/18 10:15**

**Date Received: 05/03/18 09:15**

**Lab Sample ID: 460-155226-2**

**Matrix: Solid**

**Percent Solids: 95.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			516581	05/04/18 14:37	DBM	TAL EDI
Total/NA	Analysis	8260C		50	516715	05/05/18 12:22	AAT	TAL EDI
Total/NA	Prep	5035			516541	05/04/18 11:48	DBM	TAL EDI
Total/NA	Analysis	8015D		50	516583	05/04/18 21:38	EMM	TAL EDI
Total/NA	Prep	3546			516569	05/04/18 13:50	SOK	TAL EDI
Total/NA	Analysis	8015D		1	516721	05/05/18 10:03	BWM	TAL EDI

**Client Sample ID: PX-OS-13 (3-3.5)**

**Date Collected: 05/02/18 10:24**

**Date Received: 05/03/18 09:15**

**Lab Sample ID: 460-155226-3**

**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	516464	05/04/18 08:28	BJP	TAL EDI

TestAmerica Edison

# Lab Chronicle

Client: TRC Environmental Corporation  
 Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-13 (3-3.5)**

**Lab Sample ID: 460-155226-3**

**Date Collected: 05/02/18 10:24**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 97.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			516749	05/05/18 10:48	DBM	TAL EDI
Total/NA	Analysis	8260C		50	517253	05/08/18 12:12	AAT	TAL EDI
Total/NA	Prep	5035			516541	05/04/18 11:49	DBM	TAL EDI
Total/NA	Analysis	8015D		50	516583	05/04/18 22:05	EMM	TAL EDI
Total/NA	Prep	3546			516569	05/04/18 13:50	SOK	TAL EDI
Total/NA	Analysis	8015D		1	516721	05/05/18 10:16	BWM	TAL EDI

**Client Sample ID: PX-OS-14 (3-3.5)**

**Lab Sample ID: 460-155226-4**

**Date Collected: 05/02/18 10:32**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	516464	05/04/18 08:28	BJP	TAL EDI

**Client Sample ID: PX-OS-14 (3-3.5)**

**Lab Sample ID: 460-155226-4**

**Date Collected: 05/02/18 10:32**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 93.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			516581	05/04/18 14:38	DBM	TAL EDI
Total/NA	Analysis	8260C		50	516715	05/05/18 12:50	AAT	TAL EDI
Total/NA	Prep	5035			516541	05/04/18 11:51	DBM	TAL EDI
Total/NA	Analysis	8015D		50	516583	05/04/18 22:32	EMM	TAL EDI
Total/NA	Prep	3546			516569	05/04/18 13:50	SOK	TAL EDI
Total/NA	Analysis	8015D		1	516721	05/05/18 10:28	BWM	TAL EDI

**Client Sample ID: PX-OS-15 (2-2.5)**

**Lab Sample ID: 460-155226-5**

**Date Collected: 05/02/18 10:43**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	516464	05/04/18 08:28	BJP	TAL EDI

**Client Sample ID: PX-OS-15 (2-2.5)**

**Lab Sample ID: 460-155226-5**

**Date Collected: 05/02/18 10:43**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 93.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			516749	05/05/18 10:49	DBM	TAL EDI
Total/NA	Analysis	8260C		50	516715	05/05/18 15:09	AAT	TAL EDI
Total/NA	Prep	5035			516541	05/04/18 11:52	DBM	TAL EDI
Total/NA	Analysis	8015D		50	517374	05/08/18 14:37	EMM	TAL EDI
Total/NA	Prep	3546			516569	05/04/18 13:50	SOK	TAL EDI

TestAmerica Edison

# Lab Chronicle

Client: TRC Environmental Corporation  
 Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-15 (2-2.5)**

**Lab Sample ID: 460-155226-5**

**Date Collected: 05/02/18 10:43**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 93.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015D		1	516721	05/05/18 10:41	BWM	TAL EDI

**Client Sample ID: PX-OS-16 (2-2.5)**

**Lab Sample ID: 460-155226-6**

**Date Collected: 05/02/18 10:55**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	516464	05/04/18 08:28	BJP	TAL EDI

**Client Sample ID: PX-OS-16 (2-2.5)**

**Lab Sample ID: 460-155226-6**

**Date Collected: 05/02/18 10:55**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 84.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			516581	05/04/18 14:38	DBM	TAL EDI
Total/NA	Analysis	8260C		50	516715	05/05/18 13:46	AAT	TAL EDI
Total/NA	Prep	5035			516541	05/04/18 11:53	DBM	TAL EDI
Total/NA	Analysis	8015D		50	516583	05/04/18 23:25	EMM	TAL EDI
Total/NA	Prep	3546	DL		516569	05/04/18 13:50	SOK	TAL EDI
Total/NA	Analysis	8015D	DL	5	516721	05/05/18 15:25	BWM	TAL EDI

**Client Sample ID: PX-OS-17 (2-2.5)**

**Lab Sample ID: 460-155226-7**

**Date Collected: 05/02/18 11:03**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	516464	05/04/18 08:28	BJP	TAL EDI

**Client Sample ID: PX-OS-17 (2-2.5)**

**Lab Sample ID: 460-155226-7**

**Date Collected: 05/02/18 11:03**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 84.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			516581	05/04/18 14:39	DBM	TAL EDI
Total/NA	Analysis	8260C		50	516715	05/05/18 13:18	AAT	TAL EDI
Total/NA	Prep	5035			516541	05/04/18 11:55	DBM	TAL EDI
Total/NA	Analysis	8015D		50	517374	05/08/18 15:56	EMM	TAL EDI
Total/NA	Prep	3546			516569	05/04/18 13:50	SOK	TAL EDI
Total/NA	Analysis	8015D		1	516721	05/05/18 11:06	BWM	TAL EDI

TestAmerica Edison

# Lab Chronicle

Client: TRC Environmental Corporation  
 Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-18 (2-2.5)**

**Lab Sample ID: 460-155226-8**

**Date Collected: 05/02/18 11:10**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	516464	05/04/18 08:28	BJP	TAL EDI

**Client Sample ID: PX-OS-18 (2-2.5)**

**Lab Sample ID: 460-155226-8**

**Date Collected: 05/02/18 11:10**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 92.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			516749	05/05/18 10:50	DBM	TAL EDI
Total/NA	Analysis	8260C		50	516715	05/05/18 15:37	AAT	TAL EDI
Total/NA	Prep	5035			516541	05/04/18 11:56	DBM	TAL EDI
Total/NA	Analysis	8015D		50	516583	05/05/18 00:19	EMM	TAL EDI
Total/NA	Prep	3546	DL		516569	05/04/18 13:50	SOK	TAL EDI
Total/NA	Analysis	8015D	DL	5	516721	05/05/18 15:38	BWM	TAL EDI

**Client Sample ID: PX-OS-19 (2-2.5)**

**Lab Sample ID: 460-155226-9**

**Date Collected: 05/02/18 11:20**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	516464	05/04/18 08:28	BJP	TAL EDI

**Client Sample ID: PX-OS-19 (2-2.5)**

**Lab Sample ID: 460-155226-9**

**Date Collected: 05/02/18 11:20**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 83.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			516749	05/05/18 10:51	DBM	TAL EDI
Total/NA	Analysis	8260C		50	517253	05/08/18 12:34	AAT	TAL EDI
Total/NA	Prep	5035			516541	05/04/18 11:57	DBM	TAL EDI
Total/NA	Analysis	8015D		50	517374	05/08/18 15:29	EMM	TAL EDI
Total/NA	Prep	3546			516569	05/04/18 13:50	SOK	TAL EDI
Total/NA	Analysis	8015D		1	516721	05/05/18 11:31	BWM	TAL EDI

**Client Sample ID: PX-OS-20 (1.5-2)**

**Lab Sample ID: 460-155226-10**

**Date Collected: 05/02/18 11:32**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	516464	05/04/18 08:28	BJP	TAL EDI

TestAmerica Edison

# Lab Chronicle

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

**Client Sample ID: PX-OS-20 (1.5-2)**

**Lab Sample ID: 460-155226-10**

**Date Collected: 05/02/18 11:32**

**Matrix: Solid**

**Date Received: 05/03/18 09:15**

**Percent Solids: 95.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			516749	05/05/18 10:52	DBM	TAL EDI
Total/NA	Analysis	8260C		50	517253	05/08/18 12:57	AAT	TAL EDI
Total/NA	Prep	5035			516541	05/04/18 11:58	DBM	TAL EDI
Total/NA	Analysis	8015D		50	517374	05/08/18 15:03	EMM	TAL EDI
Total/NA	Prep	3546			516569	05/04/18 13:55	SOK	TAL EDI
Total/NA	Analysis	8015D		1	516721	05/05/18 12:08	BWM	TAL EDI

**Laboratory References:**

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900



# Accreditation/Certification Summary

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

## Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New Jersey	NELAP	2	12028	06-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



# Method Summary

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8015D	Gasoline Range Organics (GRO) (GC)	SW846	TAL EDI
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

# Sample Summary

Client: TRC Environmental Corporation  
Project/Site: Bel Air Station, Fallston, MD

TestAmerica Job ID: 460-155226-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-155226-1	PX-OS-11 (3-3.5)	Solid	05/02/18 10:10	05/03/18 09:15
460-155226-2	PX-OS-12 (3-3.5)	Solid	05/02/18 10:15	05/03/18 09:15
460-155226-3	PX-OS-13 (3-3.5)	Solid	05/02/18 10:24	05/03/18 09:15
460-155226-4	PX-OS-14 (3-3.5)	Solid	05/02/18 10:32	05/03/18 09:15
460-155226-5	PX-OS-15 (2-2.5)	Solid	05/02/18 10:43	05/03/18 09:15
460-155226-6	PX-OS-16 (2-2.5)	Solid	05/02/18 10:55	05/03/18 09:15
460-155226-7	PX-OS-17 (2-2.5)	Solid	05/02/18 11:03	05/03/18 09:15
460-155226-8	PX-OS-18 (2-2.5)	Solid	05/02/18 11:10	05/03/18 09:15
460-155226-9	PX-OS-19 (2-2.5)	Solid	05/02/18 11:20	05/03/18 09:15
460-155226-10	PX-OS-20 (1.5-2)	Solid	05/02/18 11:32	05/03/18 09:15





**Test America** Edison, NJ Attn: Allison Bennett  
**CALIBER ANALYTICAL SERVICES**

8851 Orchard Tree Lane Towson, MD 21286  
 Phone: 410.825.1151  
 Fax: 410.825.2126  
 www.caslabs.net

**Chain of Custody Record**

Customer: Colonial  
 Contact/Report to: Brian Becker  
 Phone:  
 Fax:

E-mail address: bhecker@trcsolutions.com  
 Project Name: Bel Air Station  
 Project Number:  
 Location: Fallston MD

SDG Number: 155226  
 Sampled by: S22081  
 PO Number:

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Preservative		Analysis Requested	Sampling Remarks/Comments
						VOL TOXICARABES + NAPHTHALENE	DRO GRO		
	PX-05-11 (3-3-5)	5-2-14	1010	2	RAW	X	X		-1
	PX-05-12 (3-3-5)	5-2-14	1015	2	RAW	X	X		-2
	PX-05-13 (3-3-5)	5-2-14	1024	2	RAW	X	X		-3
	PX-05-14 (3-3-5)	5-2-14	1032	2	RAW	X	X		-4
	PX-05-15 (2-2-5)	5-2-14	1013	2	RAW	X	X		-5
	PX-05-16 (2-2-5)	5-2-14	1055	2	RAW	X	X		-6
	PX-05-17 (2-2-5)	5-2-14	1103	2	RAW	X	X		-7
	PX-05-18 (2-2-5)	5-2-14	1110	2	RAW	X	X		-8
	PX-05-19 (2-2-5)	5-2-14	1120	2	RAW	X	X		-9
	PX-05-20 (1.5-2)	5-2-14	1132	2	RAW	X	X		-10

Relinquished by: [Signature]  
 Received by: [Signature]  
 Relinquished by: [Signature]  
 Received by: TASHA CC via FedEx  
 Relinquished by:  
 Received by:  
 Date/Time: 5-2-14 1407  
 Date/Time: 5/2/14 19:37  
 Date/Time: 5/2/14  
 Date/Time: 5/3/18 0915  
 Date/Time:  
 Date/Time:  
 Deliverables: I II III CLP EDD  
 Receipt Temperature: 2.2°C On Ice  
 Turnaround Time: STD Next Day 2-Day Other  
 Custody Seals: Sample cooler  
 Delivered by client: 114598



460-155226 Chain of Custody



## Login Sample Receipt Checklist

Client: TRC Environmental Corporation

Job Number: 460-155226-1

**Login Number: 155226**

**List Number: 1**

**Creator: Lysy, Susan**

**List Source: TestAmerica Edison**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	114598
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/11/18 13:07  
Date Received: 04/13/18 16:14  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041306

Field Sample ID:	PX-L03-01	Matrix:	Soil	Lab ID:	18041306-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	81	%		SM2540G	04/17/18	04/17/18 14:08	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Acetone	ND	ug/kg	50	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Carbon disulfide	ND	ug/kg	10	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Methyl acetate	ND	ug/kg	25	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Methylene chloride	ND	ug/kg	25	EPA 8260B	04/16/18	04/16/18 17:22	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
2-Butanone (MEK)	ND	ug/kg	50	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Benzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Methylcyclohexane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	10	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Toluene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
2-Hexanone (MBK)	ND	ug/kg	10	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Ethylbenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
m&p-Xylene	ND	ug/kg	10	EPA 8260B	04/16/18	04/16/18 17:22	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/11/18 13:07  
Date Received: 04/13/18 16:14  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041306

Field Sample ID:	PX-L03-01	Matrix:	Soil	Lab ID:	18041306-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Styrene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Bromoform	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Naphthalene	ND	ug/kg	10	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
tert-Butanol (TBA)	ND	ug/kg	25	EPA 8260B	04/16/18	04/16/18 17:22	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	25	EPA 8260B	04/16/18	04/16/18 17:22	GFH
tert-Amyl ethyl ether (TAEI)	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 17:22	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	25	EPA 8015C	04/16/18	04/16/18 13:39	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/kg	0.26	EPA 8015C	04/13/18	04/13/18 22:32	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: 04/11/18 13:13  
Date Received: 04/13/18 16:14  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041306

Field Sample ID:	PX-L03-02	Matrix:	Soil	Lab ID:	18041306-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	77	%		SM2540G	04/17/18	04/17/18 14:08	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Acetone	ND	ug/kg	57	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Methyl acetate	ND	ug/kg	28	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Methylene chloride	ND	ug/kg	28	EPA 8260B	04/16/18	04/16/18 17:53	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
2-Butanone (MEK)	ND	ug/kg	57	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Benzene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Toluene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 17:53	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	04/16/18	04/16/18 17:53	GFH





# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/11/18 13:45  
Date Received: 04/13/18 16:14  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041306

Field Sample ID:	PX-L03-03	Matrix:	Soil	Lab ID:	18041306-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	79	%		SM2540G	04/17/18	04/17/18 14:08	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Chloromethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Vinyl chloride	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Bromomethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Chloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Trichlorofluoromethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,1-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Acetone	ND	ug/kg	47	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Carbon disulfide	ND	ug/kg	9	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Methyl acetate	ND	ug/kg	24	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Methylene chloride	ND	ug/kg	24	EPA 8260B	04/16/18	04/16/18 18:23	GFH
trans-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Methyl t-butyl ether (MTBE)	11	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,1-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
cis-1,2-Dichloroethene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
2-Butanone (MEK)	ND	ug/kg	47	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Chloroform	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,1,1-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Cyclohexane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Carbon tetrachloride	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Benzene	280	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,2-Dichloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Trichloroethene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Methylcyclohexane	6	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,2-Dichloropropane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Bromodichloromethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
cis-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	9	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Toluene	400	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
trans-1,3-Dichloropropene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,1,2-Trichloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Tetrachloroethene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
2-Hexanone (MBK)	ND	ug/kg	9	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Dibromochloromethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,2-Dibromoethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Chlorobenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Ethylbenzene	30	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
m&p-Xylene	110	ug/kg	9	EPA 8260B	04/16/18	04/16/18 18:23	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/11/18 13:45  
Date Received: 04/13/18 16:14  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041306

Field Sample ID:	PX-L03-03	Matrix:	Soil	Lab ID:	18041306-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	54	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Styrene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Bromoform	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Isopropylbenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,3-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,4-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,2-Dichlorobenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Naphthalene	21	ug/kg	9	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
tert-Butanol (TBA)	ND	ug/kg	24	EPA 8260B	04/16/18	04/16/18 18:23	GFH
Diisopropyl ether (DIPE)	70	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
tert-Amyl alcohol (TAA)	45	ug/kg	24	EPA 8260B	04/16/18	04/16/18 18:23	GFH
tert-Amyl ethyl ether (TAE)	ND	ug/kg	5	EPA 8260B	04/16/18	04/16/18 18:23	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	36	mg/kg	26	EPA 8015C	04/16/18	04/16/18 14:15	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	3.3	mg/kg	0.31	EPA 8015C	04/13/18	04/13/18 23:20	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: 04/11/18 14:35  
Date Received: 04/13/18 16:14  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041306

Field Sample ID:	PX-L03-04	Matrix:	Soil	Lab ID:	18041306-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	77	%		SM2540G	04/17/18	04/17/18 14:09	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Acetone	ND	ug/kg	55	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Methyl acetate	ND	ug/kg	28	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Methylene chloride	ND	ug/kg	28	EPA 8260B	04/16/18	04/16/18 18:54	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
2-Butanone (MEK)	ND	ug/kg	55	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Cyclohexane	11	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Benzene	30	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Methylcyclohexane	74	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Toluene	310	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Ethylbenzene	150	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
m&p-Xylene	590	ug/kg	11	EPA 8260B	04/16/18	04/16/18 18:54	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/11/18 14:35  
Date Received: 04/13/18 16:14  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041306

Field Sample ID:	PX-L03-04	Matrix:	Soil	Lab ID:	18041306-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
o-Xylene	270	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Styrene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Bromoform	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Isopropylbenzene	42	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Naphthalene	98	ug/kg	11	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
tert-Butanol (TBA)	ND	ug/kg	28	EPA 8260B	04/16/18	04/16/18 18:54	GFH
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
tert-Amyl alcohol (TAA)	ND	ug/kg	28	EPA 8260B	04/16/18	04/16/18 18:54	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	04/16/18	04/16/18 18:54	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/kg	27	EPA 8015C	04/16/18	04/16/18 14:15	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	0.28	mg/kg	0.26	EPA 8015C	04/13/18	04/13/18 23:45	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: 20257

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
PX-L03-01 / 18041306-01	4/16/2018 5:22:00 PM	95	96	101
PX-L03-02 / 18041306-02	4/16/2018 5:53:00 PM	97	97	102
PX-L03-03 / 18041306-03	4/16/2018 6:23:00 PM	99	99	100
PX-L03-04 / 18041306-04	4/16/2018 6:54:00 PM	127*	99	100
	Upper Limit	120	120	120
	Lower Limit	85	85	85

\* - Indicates values outside of QC control limits due to coeluting peaks.



# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20257  
 MATRIX: SOIL INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 4/16/2018 4:21:00 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	18.9	76	54 - 127
BENZENE	25	NA	21.8	87	69 - 126
CARBON TETRACHLORIDE	25	NA	25.1	100	56 - 135
CHLOROBENZENE	25	NA	25.9	104	67 - 107
CHLOROFORM	25	NA	21.0	84	64 - 128
M&P-XYLENE	50	NA	52.8	106	69 - 113
METHYL T-BUTYL ETHER (MTBE)	25	NA	21.5	86	69 - 139
TETRACHLOROETHENE	25	NA	27.3	109 *	70 - 104
TOLUENE	25	NA	25.6	102	69 - 118
TRICHLOROETHENE	25	NA	24.4	98	71 - 104
VINYL CHLORIDE	25	NA	21.6	86	61 - 137

\* - 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:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20257  
**Batch Date:** 4/13/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Chloromethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Bromomethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Chloroethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Acetone	ND	ug/kg	EPA 8260B	50.0	04/16/18 16:51
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	04/16/18 16:51
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	04/16/18 16:51
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	04/16/18 16:51
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	04/16/18 16:51
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Benzene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,2-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	04/16/18 16:51
TOLUENE	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	04/16/18 16:51
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,2-Dibromoethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20257  
**Batch Date:** 4/13/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	04/16/18 16:51
o-Xylene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Styrene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Bromoform	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,2-Dibromo-3-chloropropane	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
Naphthalene	ND	ug/kg	EPA 8260B	10.0	04/16/18 16:51
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	04/16/18 16:51
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	04/16/18 16:51
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	04/16/18 16:51

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: 20256

Sample ID	Date/Time Analyzed	TFT
PX-L03-01 / 18041306-01	4/13/2018 10:32:00 PM	73
PX-L03-02 / 18041306-02	4/13/2018 10:56:00 PM	90
PX-L03-03 / 18041306-03	4/13/2018 11:20:00 PM	90
PX-L03-04 / 18041306-04	4/13/2018 11:45:00 PM	95
	Upper Limit	118
	Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20256  
 MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
 SAMPLE ID: LCS  
 DATE ANALYZED: 4/13/2018 4:26:00 PM  
 LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	4663.7	85	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:** 20256  
**Batch Date:** 4/13/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	04/13/18 16:51

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: 20259

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-L03-01 / 18041306-01	4/16/2018 1:39:00 PM	107
PX-L03-02 / 18041306-02	4/16/2018 1:39:00 PM	101
PX-L03-03 / 18041306-03	4/16/2018 2:15:00 PM	94
PX-L03-04 / 18041306-04	4/16/2018 2:15:00 PM	102
	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: 20259  
 MATRIX: SOIL INSTRUMENT: DRO1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 4/16/2018 1:04:00 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	473.2	93	84 - 120

SAMPLE ID: LCSD  
 DATE ANALYZED: 4/16/2018 4:00:00 PM  
 LAB FILE IDs: 14.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPK DUP CONC (mg/L)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	NA	488.4	96	3.2	20	84 - 120

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** DRO  
**Matrix:** Soil

**Batch ID:** 20259  
**Batch Date:** 4/16/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	04/16/18 13:04

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: 04/30/18 9:35  
Date Received: 04/30/18 13:04  
Date Issued: 05/02/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18043005

Field Sample ID:	PX-LO3-05 (7.5-8)	Matrix:	Soil	Lab ID:	18043005-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	83	%		SM2540G	05/01/18	05/02/18 13:41	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Acetone	ND	ug/kg	55	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Methyl acetate	ND	ug/kg	28	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Methylene chloride	ND	ug/kg	28	EPA 8260B	05/01/18	05/01/18 14:00	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
2-Butanone (MEK)	ND	ug/kg	55	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Benzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Toluene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	05/01/18	05/01/18 14:00	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/30/18 9:35  
Date Received: 04/30/18 13:04  
Date Issued: 05/02/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18043005

Field Sample ID:	PX-LO3-05 (7.5-8)			Matrix:	Soil	Lab ID: 18043005-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
Styrene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
Bromoform	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
Naphthalene	ND	ug/kg	11	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
tert-Butanol (TBA)	ND	ug/kg	28	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	28	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
tert-Amyl ethyl ether (TAE)	ND	ug/kg	6	EPA 8260B	05/01/18	05/01/18 14:00	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	87	mg/kg	25	EPA 8015C	04/30/18	05/01/18 15:49	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	1.1	mg/kg	0.25	EPA 8015C	04/30/18	04/30/18 17:50	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: 04/30/18 9:58  
Date Received: 04/30/18 13:04  
Date Issued: 05/02/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18043005

Field Sample ID:	PX-LO3-06 (7.5-8)	Matrix:	Soil	Lab ID:	18043005-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	76	%		SM2540G	05/01/18	05/02/18 13:41	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Chloromethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Vinyl chloride	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Bromomethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Chloroethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Acetone	ND	ug/kg	69	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Carbon disulfide	ND	ug/kg	14	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Methyl acetate	ND	ug/kg	35	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Methylene chloride	ND	ug/kg	35	EPA 8260B	05/01/18	05/01/18 14:30	GFH
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
2-Butanone (MEK)	ND	ug/kg	69	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Chloroform	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Cyclohexane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Benzene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Trichloroethene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	14	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Toluene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
2-Hexanone (MBK)	ND	ug/kg	14	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Chlorobenzene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
Ethylbenzene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH
m&p-Xylene	ND	ug/kg	14	EPA 8260B	05/01/18	05/01/18 14:30	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/30/18 9:58  
Date Received: 04/30/18 13:04  
Date Issued: 05/02/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18043005

Field Sample ID:	PX-LO3-06 (7.5-8)			Matrix:	Soil	Lab ID: 18043005-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
Styrene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
Bromoform	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
Naphthalene	ND	ug/kg	14	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
tert-Butanol (TBA)	ND	ug/kg	35	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	35	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	05/01/18	05/01/18 14:30	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	130	mg/kg	28	EPA 8015C	04/30/18	05/01/18 15:49	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	3.1	mg/kg	0.23	EPA 8015C	04/30/18	04/30/18 18:14	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: 04/30/18 10:40  
Date Received: 04/30/18 13:04  
Date Issued: 05/02/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18043005

Field Sample ID:	PX-LO3-07 (8-8.5)		Matrix:	Soil	Lab ID: 18043005-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	73	%		SM2540G	05/01/18	05/02/18 13:41	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Acetone	ND	ug/kg	60	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Carbon disulfide	ND	ug/kg	12	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Methyl acetate	ND	ug/kg	30	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Methylene chloride	ND	ug/kg	30	EPA 8260B	05/01/18	05/02/18 10:33	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
2-Butanone (MEK)	ND	ug/kg	60	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Cyclohexane	69	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Benzene	52	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Methylcyclohexane	450	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	12	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Toluene	540	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
2-Hexanone (MBK)	ND	ug/kg	12	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
Ethylbenzene	300	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH
m&p-Xylene	1,400	ug/kg	12	EPA 8260B	05/01/18	05/02/18 10:33	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/30/18 10:40  
Date Received: 04/30/18 13:04  
Date Issued: 05/02/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18043005

Field Sample ID:	PX-LO3-07 (8-8.5)			Matrix:	Soil	Lab ID: 18043005-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	630	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
Styrene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
Bromoform	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
Isopropylbenzene	150	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
Naphthalene	35	ug/kg	12	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
tert-Butanol (TBA)	ND	ug/kg	30	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	30	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	05/01/18	05/02/18 10:33	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	1,900	mg/kg	28	EPA 8015C	04/30/18	05/01/18 16:29	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	56	mg/kg	2.4	EPA 8015C	04/30/18	04/30/18 18:38	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
Contact/Report to:	Rob Shenk
Phone:	
Fax:	

E-mail address:	rshenk@colpipe.com
Project Name:	Bel Air Station
Project Number:	
Location:	Fallston, MD

SDG Number:	18043005
Sampled by:	D Kudla
PO Number:	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Sampling Remarks/Comments		
						Preservative	VOL 8260-05 Semis + naphthalene	TPH	DRO	LRD								
	PX-L03-05 (7.5-8)	4/30/18	0935	3	Soil	X	X	X	X									
	PX-L03-05 (8.5-9)	4/30/18	0942	3	Soil	X	X	X	X									Hold, Extract VOC
	PX-L03-06 (7.5-8)	4/30/18	0958	3	Soil	X	X	X	X									
	PX-L03-06 (8.5-9)	4/30/18	1007	3	Soil	X	X	X	X									Hold, Extract VOC
	PX-L03-07 (8-8.5)	4/30/18	1046	3	Soil	X	X	X	X									
	PX-L03-07 (9.5-10)	4/30/18	1055	3	Soil	X	X	X	X									Hold, Extract VOC

Relinquished by:	<i>[Signature]</i>	Date/Time:	4/30/18 1304	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	4/30/18 1304	I II III CLP EDD	Temp: 3.1°C On Ice	<input checked="" type="radio"/> Next Day <input type="radio"/> 2-Day <input type="radio"/> 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:				



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 20384

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
PX-LO3-05 (7.5-8) / 18043005-01	5/1/2018 2:00:00 PM	97	96	101
PX-LO3-06 (7.5-8) / 18043005-03	5/1/2018 2:30:00 PM	96	93	101
PX-LO3-07 (8-8.5) / 18043005-05	5/2/2018 10:33:00 AM	122*	100	106
	Upper Limit	120	120	120
	Lower Limit	85	85	85

\* - Indicates values outside of QC control limits due to coeluting peak.



# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20384  
 MATRIX: SOIL INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 5/1/2018 12:29:00 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	20.9	84	54 - 127
BENZENE	25	NA	22.0	88	69 - 126
CARBON TETRACHLORIDE	25	NA	25.3	101	56 - 135
CHLOROBENZENE	25	NA	22.4	90	67 - 107
CHLOROFORM	25	NA	21.9	88	64 - 128
M&P-XYLENE	50	NA	46.9	94	69 - 113
METHYL T-BUTYL ETHER (MTBE)	25	NA	24.5	98	69 - 139
TETRACHLOROETHENE	25	NA	25.9	104	70 - 104
TOLUENE	25	NA	24.3	97	69 - 118
TRICHLOROETHENE	25	NA	23.3	93	71 - 104
VINYL CHLORIDE	25	NA	24.7	99	61 - 137

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20384  
**Batch Date:** 5/1/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Chloromethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Bromomethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Chloroethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Acetone	ND	ug/kg	EPA 8260B	50.0	05/01/18 13:00
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	05/01/18 13:00
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	05/01/18 13:00
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	05/01/18 13:00
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	05/01/18 13:00
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Benzene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,2-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	05/01/18 13:00
TOLUENE	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	05/01/18 13:00
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,2-Dibromoethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20384  
**Batch Date:** 5/1/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	05/01/18 13:00
o-Xylene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Styrene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Bromoform	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,2-Dibromo-3-chloropropane	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
Naphthalene	ND	ug/kg	EPA 8260B	10.0	05/01/18 13:00
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	05/01/18 13:00
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	05/01/18 13:00
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	05/01/18 13:00

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:** 20381

Sample ID	Date/Time Analyzed	TFT
PX-LO3-05 (7.5-8) / 18043005-01	4/30/2018 5:50:00 PM	91
PX-LO3-06 (7.5-8) / 18043005-03	4/30/2018 6:14:00 PM	83
PX-LO3-07 (8-8.5) / 18043005-05	4/30/2018 6:38:00 PM	60
	Upper Limit	118
	Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20381  
 MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
 SAMPLE ID: LCS  
 DATE ANALYZED: 4/30/2018 5:02:00 PM  
 LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	4752.1	86	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:** 20381  
**Batch Date:** 4/30/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	04/30/18 17:26

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: 20382

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-LO3-05 (7.5-8) / 18043005-01	5/1/2018 3:49:00 PM	109
PX-LO3-06 (7.5-8) / 18043005-03	5/1/2018 3:49:00 PM	91
PX-LO3-07 (8-8.5) / 18043005-05	5/1/2018 4:29:00 PM	108
	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: 20382  
 MATRIX: SOIL INSTRUMENT: DRO1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 5/1/2018 11:58:00 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	514.2	101	84 - 120

SAMPLE ID: LCSD  
 DATE ANALYZED: 5/1/2018 7:10:00 PM  
 LAB FILE IDs: 25.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPK DUP CONC (mg/L)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	NA	515.6	101	0.3	20	84 - 120

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** DRO  
**Matrix:** Soil

**Batch ID:** 20382  
**Batch Date:** 4/30/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	05/01/18 11:58

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: 04/30/18 10:55  
Date Received: 04/30/18 13:04  
Date Issued: 5/7/2018

Project: Bel Air Event  
Location: Fallston, MD

**SDG Number: 18043005**

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	PX-LO3-07 (9.5-10)		<b>Matrix:</b>	Soil	<b>Lab ID:</b> 18043005-06		
<b>Percent Solids</b>							
Percent Solids	83	%		SM2540G	05/03/18	05/03/18 14:36	MEL
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	27	mg/kg	22	EPA 8015C	05/03/18	05/04/18 14:36	AC

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:

Quality Assurance Chemist



Chain of Custody Record

Customer:	Colonial
Contact/Report to:	Rob Shenk
Phone:	
Fax:	

E-mail address:	rshenk@colpipe.com
Project Name:	Bel Air Station
Project Number:	
Location:	Fallston, MD

SDG Number:	18043005
Sampled by:	D Kudla
PO Number:	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Sampling Remarks/Comments		
						Preservative	VOL 8260-05 Semis + naphthalene	TPH	DRO	LRD								
	PX-L03-05 (7.5-8)	4/30/18	0935	3	Soil	X	X	X	X									
	PX-L03-05 (8.5-9)	4/30/18	0942	3	Soil	X	X	X	X									
	PX-L03-06 (7.5-8)	4/30/18	0958	3	Soil	X	X	X	X									Hold, Extract VOC
	PX-L03-06 (8.5-9)	4/30/18	1007	3	Soil	X	X	X	X									Hold, Extract VOC
	PX-L03-07 (8-8.5)	4/30/18	1046	3	Soil	X	X	X	X									Hold, Extract VOC
	PX-L03-07 (9.5-10)	4/30/18	1055	3	Soil	X	X	X	X									Hold, Extract VOC

Relinquished by:	<i>[Signature]</i>	Date/Time:	4/30/18 1304	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	4/30/18 1304	I II III CLP EDD	Temp: 3.1°C On Ice	<input checked="" type="radio"/> Next Day <input type="radio"/> 2-Day <input type="radio"/> 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:				



---

**Bel Air Station SDG 18043005**

Kudla, David <DKudla@trcsolutions.com>

To: "amc@caslabs.net" <amc@caslabs.net>

Cc: "Hecker, Brian" <BHecker@trcsolutions.com>, "Carpenter, Stanley" <scarpenter@colpipe.com>, "Shenk, Robert A" <RShenk@colpipe.com>, "Carlson, David" <DCarlson@trcsolutions.com>

Thu, May 3, 2018 at 9:34 AM

Please analyze hold sample **PX-L03-07 (9.5-10) for TPH-DRO on a 2-day turn.**

Thank you,

**David Kudla**

Associate Project Manager

-



1601 Market Street, Suite 2555, Philadelphia, PA 19103

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# CALIBER ANALYTICAL SERVICES

DRO

## SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8015C

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 20405

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-LO3-07 (9.5-10) / 18043005-06	5/4/2018 2:36:00 PM	72
	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: 20405  
MATRIX: SOIL INSTRUMENT: DRO1  
SAMPLE ID: LCS  
DATE ANALYZED: 5/4/2018 1:59:00 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	503.6	99	84 - 120

\* - 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:** DRO  
**Matrix:** Soil

**Batch ID:** 20405  
**Batch Date:** 5/3/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	05/04/18 13:59

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: 05/08/18 8:10  
Date Received: 05/08/18 10:25  
Date Issued: 05/10/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18050802

Field Sample ID:	PX-LO3-08 (7.5-8)	Matrix:	Soil	Lab ID:	18050802-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	80	%		SM2540G	05/09/18	05/09/18 15:55	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Chloromethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Vinyl chloride	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Bromomethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Chloroethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Acetone	ND	ug/kg	56	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Carbon disulfide	ND	ug/kg	11	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Methyl acetate	ND	ug/kg	28	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Methylene chloride	ND	ug/kg	28	EPA 8260B	05/09/18	05/09/18 16:17	GFH
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
2-Butanone (MEK)	ND	ug/kg	56	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Chloroform	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Cyclohexane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Benzene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Trichloroethene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	11	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Toluene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
2-Hexanone (MBK)	ND	ug/kg	11	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Chlorobenzene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
Ethylbenzene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH
m&p-Xylene	ND	ug/kg	11	EPA 8260B	05/09/18	05/09/18 16:17	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 05/08/18 8:10  
Date Received: 05/08/18 10:25  
Date Issued: 05/10/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18050802

Field Sample ID:	PX-LO3-08 (7.5-8)			Matrix:	Soil	Lab ID: 18050802-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
Styrene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
Bromoform	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
Naphthalene	ND	ug/kg	11	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
tert-Butanol (TBA)	ND	ug/kg	28	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	28	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	05/09/18	05/09/18 16:17	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/kg	27	EPA 8015C	05/08/18	05/09/18 12:42	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/kg	0.24	EPA 8015C	05/08/18	05/08/18 17:19	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: 05/08/18 8:30  
Date Received: 05/08/18 10:25  
Date Issued: 05/10/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18050802

Field Sample ID:	PX-LO3-09 (7.5-8)		Matrix:	Soil	Lab ID: 18050802-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Percent Solids</b>							
Percent Solids	79	%		SM2540G	05/09/18	05/09/18 15:56	MEL
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Chloromethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Vinyl chloride	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Bromomethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Chloroethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Trichlorofluoromethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
1,1-Dichloroethene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Acetone	ND	ug/kg	5500	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Carbon disulfide	ND	ug/kg	1100	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Methyl acetate	ND	ug/kg	2800	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Methylene chloride	ND	ug/kg	2800	EPA 8260B	05/09/18	05/10/18 1:13	GFH
trans-1,2-Dichloroethene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Methyl t-butyl ether (MTBE)	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
1,1-Dichloroethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
cis-1,2-Dichloroethene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
2-Butanone (MEK)	ND	ug/kg	5500	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Chloroform	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
1,1,1-Trichloroethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Cyclohexane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Carbon tetrachloride	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Benzene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
1,2-Dichloroethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Trichloroethene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Methylcyclohexane	2,600	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
1,2-Dichloropropane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Bromodichloromethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
cis-1,3-Dichloropropene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	1100	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Toluene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
trans-1,3-Dichloropropene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
1,1,2-Trichloroethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Tetrachloroethene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
2-Hexanone (MBK)	ND	ug/kg	1100	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Dibromochloromethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
1,2-Dibromoethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Chlorobenzene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
Ethylbenzene	6,100	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH
m&p-Xylene	19,000	ug/kg	1100	EPA 8260B	05/09/18	05/10/18 1:13	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 05/08/18 8:30  
Date Received: 05/08/18 10:25  
Date Issued: 05/10/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18050802

Field Sample ID:	PX-LO3-09 (7.5-8)			Matrix:	Soil	Lab ID: 18050802-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	6,700	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
Styrene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
Bromoform	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
Isopropylbenzene	1,400	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
1,3-Dichlorobenzene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
1,4-Dichlorobenzene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
1,2-Dichlorobenzene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
Naphthalene	4,700	ug/kg	1100	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
tert-Butanol (TBA)	ND	ug/kg	2800	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	2800	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	550	EPA 8260B	05/09/18	05/10/18 1:13	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	1,100	mg/kg	24	EPA 8015C	05/08/18	05/09/18 12:42	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	260	mg/kg	120	EPA 8015C	05/08/18	05/08/18 17:43	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: 05/08/18 8:40  
Date Received: 05/08/18 10:25  
Date Issued: 05/15/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18050802

Field Sample ID:	PX-LO3-09 (10-10.5)		Matrix:	Soil	Lab ID:	18050802-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Percent Solids</b>								
Percent Solids	81	%		SM2540G	05/14/18	05/14/18 15:04	MEL	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/kg	26	EPA 8015C	05/11/18	05/14/18 11:55	AC	

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: Matt Cohen  
QC Chemist



### Chain of Custody Record

Customer:	Colonial
Contact/Report to:	Rob Shenk
Phone:	
Fax:	

E-mail address:	rshenk@caliber.com
Project Name:	Del Air Station
Project Number:	
Location:	Fallston, MD

SDG Number:	18050802
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Sampled by:	D Kudla
PO Number:	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Preservative	Sampling Remarks/Comments	
						VOL + oxygenated + naphthalene	GRG	P20										
	PX-L03-08 (7.5-8)	5/8/18	0810	3	Soil	X	X	X										
	PX-L03-08 (9.5-9)	5/8/18	0815	3	Soil	X	X	X										Hold all analyses
	PX-L03-09 (7.5-8)	5/8/18	0830	3	Soil	X	X	X										
	PX-L03-09 (10-10.5)	5/8/18	0840	3	Soil	X	X	X										Hold all analyses

Relinquished by:	<i>[Signature]</i>	Date/Time:	5/8/18 10:25	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	5/8/18 10:25	I II III CLP EDD	Temp: 3.5°C	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:				



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 20450

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
PX-LO3-08 (7.5-8) / 18050802-01	5/9/2018 4:17:00 PM	94	97	102
PX-LO3-09 (7.5-8) / 18050802-03	5/10/2018 1:13:00 AM	108	108	102
	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: 20450  
 MATRIX: SOIL INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 5/9/2018 3:17:00 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	20.1	80	65 - 122
BENZENE	25	NA	21.9	87	66 - 127
CARBON TETRACHLORIDE	25	NA	24.5	98	62 - 133
CHLOROBENZENE	25	NA	23.1	93	63 - 109
CHLOROFORM	25	NA	22.1	88	66 - 126
M&P-XYLENE	50	NA	47.7	95	58 - 120
METHYL T-BUTYL ETHER (MTBE)	25	NA	23.6	94	69 - 139
TETRACHLOROETHENE	25	NA	27.4	109	58 - 128
TOLUENE	25	NA	25.9	104	62 - 127
TRICHLOROETHENE	25	NA	24.6	99	62 - 119
VINYL CHLORIDE	25	NA	24.3	97	68 - 130

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20450  
**Batch Date:** 5/9/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Chloromethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Bromomethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Chloroethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Acetone	ND	ug/kg	EPA 8260B	50.0	05/09/18 15:47
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	05/09/18 15:47
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	05/09/18 15:47
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	05/09/18 15:47
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	05/09/18 15:47
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Benzene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,2-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	05/09/18 15:47
TOLUENE	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	05/09/18 15:47
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,2-Dibromoethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20450  
**Batch Date:** 5/9/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	05/09/18 15:47
o-Xylene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Styrene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Bromoform	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,2-Dibromo-3-chloropropane	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
Naphthalene	ND	ug/kg	EPA 8260B	10.0	05/09/18 15:47
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	05/09/18 15:47
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	05/09/18 15:47
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	05/09/18 15:47

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: 20444

Sample ID	Date/Time Analyzed	TFT
PX-LO3-08 (7.5-8) / 18050802-01	5/8/2018 5:19:00 PM	75
PX-LO3-09 (7.5-8) / 18050802-03	5/8/2018 5:43:00 PM	67

Upper Limit	118
Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20444  
MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
SAMPLE ID: LCS  
DATE ANALYZED: 5/8/2018 4:31:00 PM  
LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	5299.2	96	75 - 125

\* - 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:** GRO  
**Matrix:** Soil

**Batch ID:** 20444  
**Batch Date:** 5/8/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	05/08/18 16:55

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: 20445

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-LO3-08 (7.5-8) / 18050802-01	5/9/2018 12:42:00 PM	100
PX-LO3-09 (7.5-8) / 18050802-03	5/9/2018 12:42:00 PM	103

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: 20445  
 MATRIX: SOIL INSTRUMENT: DRO1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 5/9/2018 12:04:00 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	517.6	101	84 - 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:** 20445  
**Batch Date:** 5/8/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	05/09/18 12:04

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: 20461

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-LO3-09 (10-10.5) / 18050802-04	5/14/2018 11:55:00 AM	91
	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: 20461  
 MATRIX: SOIL INSTRUMENT: DRO1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 5/14/2018 11:19:00 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	504.1	99	84 - 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:** 20461  
**Batch Date:** 5/11/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	05/14/18 11:19

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: 05/14/18 9:28  
Date Received: 05/14/18 10:50  
Date Issued: 05/16/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18051404

Field Sample ID:	PX-LO3-10 (7.5-8)		Matrix:	soil		Lab ID:	18051404-01	
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Percent Solids</b>								
Percent Solids	70	%		SM2540G	05/16/18	05/16/18 15:48	AC	
<b>Target Compound List - VOLATILES</b>								
Dichlorodifluoromethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Chloromethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Vinyl chloride	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Bromomethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Chloroethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Trichlorofluoromethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,1-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Acetone	ND	ug/kg	65	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Carbon disulfide	ND	ug/kg	13	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Methyl acetate	ND	ug/kg	32	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Methylene chloride	ND	ug/kg	32	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
trans-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Methyl t-butyl ether (MTBE)	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,1-Dichloroethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
cis-1,2-Dichloroethene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
2-Butanone (MEK)	ND	ug/kg	65	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Chloroform	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,1,1-Trichloroethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Cyclohexane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Carbon tetrachloride	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Benzene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,2-Dichloroethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Trichloroethene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Methylcyclohexane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,2-Dichloropropane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Bromodichloromethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
cis-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Toluene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
trans-1,3-Dichloropropene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,1,2-Trichloroethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Tetrachloroethene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Dibromochloromethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,2-Dibromoethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Chlorobenzene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Ethylbenzene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
m&p-Xylene	ND	ug/kg	13	EPA 8260B	05/16/18	05/16/18 12:09	GFH	



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 05/14/18 9:28  
Date Received: 05/14/18 10:50  
Date Issued: 05/16/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18051404

Field Sample ID:	PX-LO3-10 (7.5-8)			Matrix:	soil	Lab ID: 18051404-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Styrene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Bromoform	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Isopropylbenzene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,3-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,4-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,2-Dichlorobenzene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Naphthalene	ND	ug/kg	13	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
tert-Butanol (TBA)	ND	ug/kg	32	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	32	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	6	EPA 8260B	05/16/18	05/16/18 12:09	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	42	mg/kg	31	EPA 8015C	05/15/18	05/16/18 12:07	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	1.3	mg/kg	0.28	EPA 8015C	05/14/18	05/14/18 19:05	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: 05/14/18 9:37  
Date Received: 05/14/18 10:50  
Date Issued: 05/16/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18051404

Field Sample ID:	PX-LO3-11 (7.5-8)			Matrix:	soil	Lab ID: 18051404-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Percent Solids</b>								
Percent Solids	74	%		SM2540G	05/16/18	05/16/18 15:49	AC	
<b>Target Compound List - VOLATILES</b>								
Dichlorodifluoromethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Chloromethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Vinyl chloride	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Bromomethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Chloroethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Trichlorofluoromethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,1-Dichloroethene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Acetone	ND	ug/kg	66	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Carbon disulfide	ND	ug/kg	13	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Methyl acetate	ND	ug/kg	33	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Methylene chloride	ND	ug/kg	33	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
trans-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Methyl t-butyl ether (MTBE)	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,1-Dichloroethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
cis-1,2-Dichloroethene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
2-Butanone (MEK)	ND	ug/kg	66	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Chloroform	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,1,1-Trichloroethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Cyclohexane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Carbon tetrachloride	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Benzene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,2-Dichloroethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Trichloroethene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Methylcyclohexane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,2-Dichloropropane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Bromodichloromethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
cis-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	13	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Toluene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
trans-1,3-Dichloropropene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,1,2-Trichloroethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Tetrachloroethene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
2-Hexanone (MBK)	ND	ug/kg	13	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Dibromochloromethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,2-Dibromoethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Chlorobenzene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Ethylbenzene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
m&p-Xylene	ND	ug/kg	13	EPA 8260B	05/16/18	05/16/18 12:39	GFH	



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 05/14/18 9:37  
Date Received: 05/14/18 10:50  
Date Issued: 05/16/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18051404

Field Sample ID:	PX-LO3-11 (7.5-8)			Matrix:	soil	Lab ID: 18051404-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
o-Xylene	14	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Styrene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Bromoform	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Isopropylbenzene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,3-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,4-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,2-Dichlorobenzene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
1,2,4-Trichlorobenzene	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Naphthalene	ND	ug/kg	13	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
tert-Butanol (TBA)	ND	ug/kg	33	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
Diisopropyl ether (DIPE)	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
tert-Amyl alcohol (TAA)	ND	ug/kg	33	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
tert-Amyl ethyl ether (TAEF)	ND	ug/kg	7	EPA 8260B	05/16/18	05/16/18 12:39	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	61	mg/kg	27	EPA 8015C	05/15/18	05/16/18 12:07	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	0.67	mg/kg	0.26	EPA 8015C	05/14/18	05/14/18 19:29	GFH	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation  
ND - Not Detected at a concentration greater than or equal to the LLQ.  
j - estimated value, less than quantitation limit.  
Results reported on a dry weight basis.

Approved by:

QC Chemist



Chain of Custody Record

Customer:	Colonial
Contact/Report to:	Rob Shenk
Phone:	
Fax:	

E-mail address:	rshenk@colpipe.com
Project Name:	Bel Air Station
Project Number:	
Location:	Fallston, MD

SDG Number:	18051404
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Sampled by:	D Kirtle
PO Number:	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested											Preservative	Sampling Remarks/Comments	
						VOL + Oxygenates + naphthalene	DRD	GRD											
	PX-L03-10 (7.5-8)	5/14/18	0928	3	Soil	X	X	X											
	PX-L03-11 (7.5-8)	5/14/18	0937	3	Soil	X	X	X											

Relinquished by:	<i>[Signature]</i>	Date/Time:	5/14/18 10:50	Deliverables:	I II III CLP EDD	Receipt Temperature:	Temp: <u>72</u> On Ice	Turnaround Time:	STD Next Day <u>2-Day</u> Other
Received by:	<i>[Signature]</i>	Date/Time:	5/14/18 10:50	Custody Seals:	Sample Cooler	Comments/Special Instructions:			
Relinquished by:		Date/Time:		Delivered by client					
Received by:		Date/Time:							
Relinquished by:		Date/Time:							
Received by:		Date/Time:							



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: SOIL

BATCH NUMBER: 20486

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
PX-LO3-10 (7.5-8) / 18051404-01	5/16/2018 12:09:00 PM	103	105	107
PX-LO3-11 (7.5-8) / 18051404-02	5/16/2018 12:39:00 PM	105	105	104
	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: 20486  
 MATRIX: SOIL INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 5/16/2018 11:10:00 AM  
 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	20.9	83	54 - 127
BENZENE	25	NA	22.2	89	69 - 126
CARBON TETRACHLORIDE	25	NA	20.0	80	56 - 135
CHLOROBENZENE	25	NA	20.6	83	67 - 107
CHLOROFORM	25	NA	25.5	102	64 - 128
M&P-XYLENE	50	NA	40.0	80	69 - 113
METHYL T-BUTYL ETHER (MTBE)	25	NA	28.3	113	69 - 139
TETRACHLOROETHENE	25	NA	22.7	91	70 - 104
TOLUENE	25	NA	24.1	97	69 - 118
TRICHLOROETHENE	25	NA	20.7	83	71 - 104
VINYL CHLORIDE	25	NA	24.8	99	61 - 137

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20486  
**Batch Date:** 5/16/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Chloromethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
VINYL CHLORIDE	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Bromomethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Chloroethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Trichlorofluoromethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,1-DICHLOROETHENE	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,1,2-Trichlorotrifluoroethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Acetone	ND	ug/kg	EPA 8260B	50.0	05/16/18 11:39
Carbon disulfide	ND	ug/kg	EPA 8260B	10.0	05/16/18 11:39
Methyl acetate	ND	ug/kg	EPA 8260B	25.0	05/16/18 11:39
Methylene chloride	ND	ug/kg	EPA 8260B	25.0	05/16/18 11:39
trans-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Methyl t-butyl ether (MTBE)	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,1-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
cis-1,2-Dichloroethene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
2-Butanone (MEK)	ND	ug/kg	EPA 8260B	50.0	05/16/18 11:39
CHLOROFORM	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,1,1-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Cyclohexane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Carbon tetrachloride	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Benzene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,2-Dichloroethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Trichloroethene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Methylcyclohexane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,2-DICHLOROPROPANE	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Bromodichloromethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
cis-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	EPA 8260B	10.0	05/16/18 11:39
TOLUENE	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
trans-1,3-Dichloropropene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,1,2-Trichloroethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Tetrachloroethene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
2-Hexanone (MBK)	ND	ug/kg	EPA 8260B	10.0	05/16/18 11:39
Dibromochloromethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,2-Dibromoethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
CHLOROBENZENE	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
ETHYLBENZENE	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Soil

**Batch ID:** 20486  
**Batch Date:** 5/16/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/kg	EPA 8260B	10.0	05/16/18 11:39
o-Xylene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Styrene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Bromoform	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Isopropylbenzene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,1,2,2-Tetrachloroethane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,3-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,4-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,2-Dichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,2-Dibromo-3-chloropropane	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
1,2,4-Trichlorobenzene	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
Naphthalene	ND	ug/kg	EPA 8260B	10.0	05/16/18 11:39
Ethyl t-butyl ether (ETBE)	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
tert-Butanol (TBA)	ND	ug/kg	EPA 8260B	25.0	05/16/18 11:39
Diisopropyl ether (DIPE)	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
tert-Amyl methyl ether (TAME)	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39
tert-Amyl alcohol (TAA)	ND	ug/kg	EPA 8260B	25.0	05/16/18 11:39
tert-Amyl ethyl ether (TAEE)	ND	ug/kg	EPA 8260B	5.0	05/16/18 11:39

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: 20468

Sample ID	Date/Time Analyzed	TFT
PX-LO3-10 (7.5-8) / 18051404-01	5/14/2018 7:05:00 PM	75
PX-LO3-11 (7.5-8) / 18051404-02	5/14/2018 7:29:00 PM	71
	Upper Limit	118
	Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20468  
 MATRIX: SOIL INSTRUMENT: VOC-PID/FID  
 SAMPLE ID: LCS  
 DATE ANALYZED: 5/14/2018 5:06:00 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	4749.2	86	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:** 20468  
**Batch Date:** 5/14/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	05/14/18 17:29

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: 20475

Sample ID	Date/Time Analyzed	o-Terphenyl
PX-LO3-10 (7.5-8) / 18051404-01	5/16/2018 12:07:00 PM	104
PX-LO3-11 (7.5-8) / 18051404-02	5/16/2018 12:07:00 PM	116

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: 20475  
 MATRIX: SOIL INSTRUMENT: DRO1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 5/16/2018 11:30:00 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	492.1	96	84 - 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:** 20475  
**Batch Date:** 5/15/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/kg	EPA 8015C	20.0	05/16/18 11:30

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 Received: 03/12/18 15:59  
Date Issued: 03/13/18 14:44  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031209

	Result	Unit	MCL	LLQ	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	<b>Bel Air Station Well</b>		<b>Date Sampled: 03/12/18</b>			<b>Lab ID: 18031209-01</b>		
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Bromobenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Bromochloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Bromodichloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Bromoform	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Bromomethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
n-Butylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
sec-Butylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
tert-Butylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Carbon tetrachloride	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Chlorobenzene	ND	ug/L	100	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Chloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Chloroform	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Chloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
2-Chlorotoluene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
4-Chlorotoluene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Dibromochloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,2-Dibromoethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Dibromomethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,2-Dichlorobenzene	ND	ug/L	600	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,3-Dichlorobenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,4-Dichlorobenzene	ND	ug/L	75	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Dichlorodifluoromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,1-Dichloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,2-Dichloroethane	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,1-Dichloroethene	ND	ug/L	7	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
cis-1,2-Dichloroethene	ND	ug/L	70	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
trans-1,2-Dichloroethene	ND	ug/L	100	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,2-Dichloropropane	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,3-Dichloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
2,2-Dichloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,1-Dichloropropene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
cis-1,3-Dichloropropene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
trans-1,3-Dichloropropene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Ethylbenzene	ND	ug/L	700	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Isopropylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
p-Isopropyltoluene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Methylene chloride	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	* 20	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Naphthalene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/12/18 15:59  
Date Issued: 03/13/18 14:44  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031209

	Result	Unit	MCL	LLQ	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	<b>Bel Air Station Well</b>		<b>Date Sampled: 03/12/18</b>			<b>Lab ID: 18031209-01</b>		
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Styrene	ND	ug/L	100	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Tetrachloroethene	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Toluene	ND	ug/L	1000	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,2,3-Trichlorobenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,2,4-Trichlorobenzene	ND	ug/L	70	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,1,1-Trichloroethane	ND	ug/L	200	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,1,2-Trichloroethane	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Trichloroethene	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Trichlorofluoromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,2,3-Trichloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,2,4-Trimethylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
1,3,5-Trimethylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Vinyl chloride	ND	ug/L	2	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
m&p-Xylene	ND	ug/L	7500	1	EPA 524.2	03/13/18	03/13/18 12:07	GFH
o-Xylene	ND	ug/L	2500	0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
tert-Butanol (TBA)	ND	ug/L		5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
Diisopropyl ether (DIPE)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
tert-Amyl alcohol (TAA)	ND	ug/L		5	EPA 524.2	03/13/18	03/13/18 12:07	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:07	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/12/18 15:59  
Date Issued: 03/13/18 14:44  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031209

	Result	Unit	MCL	LLQ	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	<b>Trip Blank</b>		<b>Date Sampled: 03/12/18</b>			<b>Lab ID: 18031209-02</b>		
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Bromobenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Bromochloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Bromodichloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Bromoform	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Bromomethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
n-Butylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
sec-Butylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
tert-Butylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Carbon tetrachloride	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Chlorobenzene	ND	ug/L	100	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Chloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Chloroform	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Chloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
2-Chlorotoluene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
4-Chlorotoluene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Dibromochloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,2-Dibromoethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Dibromomethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,2-Dichlorobenzene	ND	ug/L	600	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,3-Dichlorobenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,4-Dichlorobenzene	ND	ug/L	75	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Dichlorodifluoromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,1-Dichloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,2-Dichloroethane	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,1-Dichloroethene	ND	ug/L	7	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
cis-1,2-Dichloroethene	ND	ug/L	70	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
trans-1,2-Dichloroethene	ND	ug/L	100	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,2-Dichloropropane	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,3-Dichloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
2,2-Dichloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,1-Dichloropropene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
cis-1,3-Dichloropropene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
trans-1,3-Dichloropropene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Ethylbenzene	ND	ug/L	700	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Isopropylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
p-Isopropyltoluene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Methylene chloride	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	* 20	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Naphthalene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/12/18 15:59  
Date Issued: 03/13/18 14:44  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031209

	Result	Unit	MCL	LLQ	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	<b>Trip Blank</b>		<b>Date Sampled: 03/12/18</b>			<b>Lab ID: 18031209-02</b>		
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Styrene	ND	ug/L	100	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Tetrachloroethene	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Toluene	ND	ug/L	1000	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,2,3-Trichlorobenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,2,4-Trichlorobenzene	ND	ug/L	70	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,1,1-Trichloroethane	ND	ug/L	200	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,1,2-Trichloroethane	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Trichloroethene	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Trichlorofluoromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,2,3-Trichloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,2,4-Trimethylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
1,3,5-Trimethylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Vinyl chloride	ND	ug/L	2	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
m&p-Xylene	ND	ug/L	7500	1	EPA 524.2	03/13/18	03/13/18 12:35	GFH
o-Xylene	ND	ug/L	2500	0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
tert-Butanol (TBA)	ND	ug/L		5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
Diisopropyl ether (DIPE)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
tert-Amyl alcohol (TAA)	ND	ug/L		5	EPA 524.2	03/13/18	03/13/18 12:35	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 12:35	GFH



# CALIBER ANALYTICAL SERVICES

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

Date Received: 03/12/18 15:59  
Date Issued: 03/13/18 14:44  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031209

	Result	Unit	MCL	LLQ	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	<b>Field Blank</b>					<b>Date Sampled: 03/12/18</b>		<b>Lab ID: 18031209-03</b>
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Bromobenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Bromochloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Bromodichloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Bromoform	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Bromomethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
n-Butylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
sec-Butylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
tert-Butylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Carbon tetrachloride	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Chlorobenzene	ND	ug/L	100	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Chloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Chloroform	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Chloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
2-Chlorotoluene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
4-Chlorotoluene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Dibromochloromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,2-Dibromoethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Dibromomethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,2-Dichlorobenzene	ND	ug/L	600	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,3-Dichlorobenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,4-Dichlorobenzene	ND	ug/L	75	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Dichlorodifluoromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,1-Dichloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,2-Dichloroethane	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,1-Dichloroethene	ND	ug/L	7	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
cis-1,2-Dichloroethene	ND	ug/L	70	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
trans-1,2-Dichloroethene	ND	ug/L	100	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,2-Dichloropropane	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,3-Dichloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
2,2-Dichloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,1-Dichloropropene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
cis-1,3-Dichloropropene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
trans-1,3-Dichloropropene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Ethylbenzene	ND	ug/L	700	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Isopropylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
p-Isopropyltoluene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Methylene chloride	ND	ug/L	5	2.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	* 20	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Naphthalene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/12/18 15:59  
Date Issued: 03/13/18 14:44  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031209

	Result	Unit	MCL	LLQ	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	<b>Field Blank</b>						<b>Date Sampled: 03/12/18</b>	<b>Lab ID: 18031209-03</b>
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Styrene	ND	ug/L	100	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Tetrachloroethene	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Toluene	ND	ug/L	1000	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,2,3-Trichlorobenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,2,4-Trichlorobenzene	ND	ug/L	70	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,1,1-Trichloroethane	ND	ug/L	200	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,1,2-Trichloroethane	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Trichloroethene	ND	ug/L	5	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Trichlorofluoromethane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,2,3-Trichloropropane	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,2,4-Trimethylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
1,3,5-Trimethylbenzene	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Vinyl chloride	ND	ug/L	2	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
m&p-Xylene	ND	ug/L	7500	1	EPA 524.2	03/13/18	03/13/18 13:02	GFH
o-Xylene	ND	ug/L	2500	0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
tert-Butanol (TBA)	ND	ug/L		5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
Diisopropyl ether (DIPE)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
tert-Amyl alcohol (TAA)	ND	ug/L		5	EPA 524.2	03/13/18	03/13/18 13:02	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L		0.5	EPA 524.2	03/13/18	03/13/18 13:02	GFH

Approved by:

QC Chemist

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* Unenforceable State issued standard.





# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

**METHOD:** EPA 524.2

**LAB CODE:** SURR

**MATRIX:** DRINKING WATER

**BATCH NUMBER:** 20084

Sample ID	Date/Time Analyzed	1,2-Dichlorobenzene-d4	4-Bromofluorobenzene
Bel Air Station Well / 18031209-01	3/13/2018 12:07:00 PM	70	71
Trip Blank / 18031209-02	3/13/2018 12:35:00 PM	79	80
Field Blank / 18031209-03	3/13/2018 1:02:00 PM	73	74
	Upper Limit	120	120
	Lower Limit	70	70

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 524.2 BATCH NUMBER: 20084  
 MATRIX: DRINKING WATER INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/13/2018 11:13:00 AM  
 LAB FILE IDs: 03.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	5	NA	3.5	70	63 - 125
BENZENE	5	NA	3.9	78	68 - 126
CARBON TETRACHLORIDE	5	NA	4.4	88	66 - 132
CHLOROBENZENE	5	NA	4.3	87	67 - 137
CHLOROFORM	5	NA	4.1	81	67 - 133
M&P-XYLENE	10	NA	8.5	85	68 - 137
METHYL T-BUTYL ETHER (MTBE)	5	NA	4.4	88	63 - 140
TETRACHLOROETHENE	5	NA	4.0	80	65 - 134
TOLUENE	5	NA	4.1	82	68 - 130
TRICHLOROETHENE	5	NA	3.9	79	68 - 132
VINYL CHLORIDE	5	NA	3.7	74	49 - 135

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Drinking Water

**Batch ID:** 20084  
**Batch Date:** 3/13/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Benzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Bromobenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Bromochloromethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Bromodichloromethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Bromoform	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Bromomethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
n-Butylbenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
sec-Butylbenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
tert-Butylbenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Carbon tetrachloride	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
CHLOROBENZENE	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Chloroethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
CHLOROFORM	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Chloromethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
2-Chlorotoluene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
4-Chlorotoluene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Dibromochloromethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,2-Dibromo-3-chloropropane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,2-Dibromoethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Dibromomethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,2-Dichlorobenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,3-Dichlorobenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,4-Dichlorobenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Dichlorodifluoromethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,1-Dichloroethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,2-Dichloroethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,1-DICHLOROETHENE	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
cis-1,2-Dichloroethene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
trans-1,2-Dichloroethene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,2-DICHLOROPROPANE	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,3-Dichloropropane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
2,2-Dichloropropane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,1-Dichloropropene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
cis-1,3-Dichloropropene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
trans-1,3-Dichloropropene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
ETHYLBENZENE	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Isopropylbenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
p-Isopropyltoluene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Drinking Water

**Batch ID:** 20084  
**Batch Date:** 3/13/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Methylene chloride	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Methyl t-butyl ether (MTBE)	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Naphthalene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
n-Propylbenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Styrene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,1,1,2-Tetrachloroethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,1,2,2-Tetrachloroethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Tetrachloroethene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
TOLUENE	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,2,3-Trichlorobenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,2,4-Trichlorobenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,1,1-Trichloroethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,1,2-Trichloroethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Trichloroethene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Trichlorofluoromethane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,2,3-Trichloropropane	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,2,4-Trimethylbenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
1,3,5-Trimethylbenzene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
VINYL CHLORIDE	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
m&p-Xylene	ND	ug/L	EPA 524.2	1.0	03/13/18 11:40
o-Xylene	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
tert-Butanol (TBA)	ND	ug/L	EPA 524.2	5.0	03/13/18 11:40
Ethyl t-butyl ether (ETBE)	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
Diisopropyl ether (DIPE)	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
tert-Amyl methyl ether (TAME)	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40
tert-Amyl alcohol (TAA)	ND	ug/L	EPA 524.2	5.0	03/13/18 11:40
tert-Amyl ethyl ether (TAEE)	ND	ug/L	EPA 524.2	0.5	03/13/18 11:40

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: 03/14/18 14:00  
Date Received: 03/14/18 16:20  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031407

Field Sample ID:	GP-4	Matrix:	Water	Lab ID:	18031407-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Acetone	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 19:02	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Chloroform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Benzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Toluene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 19:02	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 19:02	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Styrene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 14:00  
Date Received: 03/14/18 16:20  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031407

Field Sample ID:	GP-4	Matrix:	Water	Lab ID:	18031407-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Bromoform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:02	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:02	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:02	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:02	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:02	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:02	GFH
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	03/15/18	03/15/18 22:08	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 14:35  
Date Received: 03/14/18 16:20  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031407

Field Sample ID: GP-5 Matrix: Water Lab ID: 18031407-02

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Acetone	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 19:33	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Chloroform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Benzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Toluene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 19:33	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 19:33	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Styrene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 14:35  
Date Received: 03/14/18 16:20  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031407

Field Sample ID:	GP-5	Matrix:	Water	Lab ID:	18031407-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Bromoform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:33	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:33	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:33	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:33	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:33	GFH
tert-Amyl ethyl ether (TAE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 19:33	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/L	0.23	EPA 8015C	03/15/18	03/15/18 19:17	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	03/15/18	03/15/18 22:31	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 14:50  
Date Received: 03/14/18 16:20  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031407

Field Sample ID:	GP-3	Matrix:	Water	Lab ID:	18031407-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Acetone	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 20:04	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Chloroform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Benzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Toluene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 20:04	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 20:04	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Styrene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 14:50  
Date Received: 03/14/18 16:20  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031407

Field Sample ID:	GP-3	Matrix:	Water	Lab ID:	18031407-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Bromoform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:04	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:04	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:04	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:04	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:04	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:04	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	0.47	mg/L	0.23	EPA 8015C	03/15/18	03/15/18 19:52	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	03/15/18	03/15/18 22:54	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 15:50  
Date Received: 03/14/18 16:20  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031407

Field Sample ID:	GP-7	Matrix:	Water	Lab ID:	18031407-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Acetone	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 20:34	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Chloroform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Benzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Toluene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 20:34	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/15/18	03/15/18 20:34	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Styrene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/14/18 15:50  
Date Received: 03/14/18 16:20  
Date Issued: 03/19/18

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031407

Field Sample ID:	GP-7	Matrix:	Water	Lab ID:	18031407-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Bromoform	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:34	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:34	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:34	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:34	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:34	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/L	25	EPA 8260B	03/15/18	03/15/18 20:34	GFH
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	0.31	mg/L	0.2	EPA 8015C	03/15/18	03/15/18 23:18	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



### Chain of Custody Record

Customer:	CPC
Contact/Report to:	Rob Shenk
Phone:	(410) 970-2126
Fax:	

E-mail address:	rshenk@colpipe.com
Project Name:	Bel Air Event
Project Number:	
Location:	Bel Air

SDG Number:	18031407
Sampled by:	Eliza Kobsar
PO Number:	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Sampling Remarks/Comments				
						Preservative														
	GP-4	3/14/18	1400	3	GW	X	<del>X</del>	X												
	GP-5	3/14/18	1435	4	GW	X	X	X												
	GP-3	3/14/18	1450	4	GW	X	X	X												
	GP-7	3/14/18	1550	3	GW	X	<del>X</del>	X												

Relinquished by:	<i>[Signature]</i>	Date/Time:	3/14/18 1630	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	3/14/18 1620	I II III CLP EDD	Temp: <u>5.6°C</u> On Ice	STD <u>Next Day</u> 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:		<i>CAS</i>		



# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20103  
 MATRIX: WATER INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/15/2018 12:57:00 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	23.5	94	65 - 122
BENZENE	25	NA	23.3	93	66 - 127
CHLOROBENZENE	25	NA	21.3	85	63 - 109
CHLOROFORM	25	NA	23.6	94	66 - 126
ETHYLBENZENE	25	NA	22.1	88	65 - 117
M&P-XYLENE	50	NA	43.2	86	58 - 120
METHYL T-BUTYL ETHER (MTBE)	25	NA	24.5	98	69 - 139
TETRACHLOROETHENE	25	NA	23.6	94	58 - 128
TOLUENE	25	NA	23.6	95	62 - 127
TRICHLOROETHENE	25	NA	23.0	92	62 - 119
VINYL CHLORIDE	25	NA	30.3	121	68 - 130

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Water

**Batch ID:** 20103  
**Batch Date:** 3/15/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Chloromethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
VINYL CHLORIDE	ND	ug/L	EPA 8260B	1.0	03/15/18 13:27
Bromomethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Chloroethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Trichlorofluoromethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,1-DICHLOROETHENE	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,1,2-Trichlorotrifluoroethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Acetone	ND	ug/L	EPA 8260B	25.0	03/15/18 13:27
Carbon disulfide	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Methyl acetate	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Methylene chloride	ND	ug/L	EPA 8260B	10.0	03/15/18 13:27
trans-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Methyl t-butyl ether (MTBE)	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,1-Dichloroethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
cis-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
2-Butanone (MEK)	ND	ug/L	EPA 8260B	25.0	03/15/18 13:27
CHLOROFORM	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,1,1-Trichloroethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Cyclohexane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Carbon tetrachloride	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Benzene	ND	ug/L	EPA 8260B	1.0	03/15/18 13:27
1,2-Dichloroethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Trichloroethene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Methylcyclohexane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,2-DICHLOROPROPANE	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Bromodichloromethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
cis-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
4-Methyl-2-pentanone (MIBK)	ND	ug/L	EPA 8260B	25.0	03/15/18 13:27
TOLUENE	ND	ug/L	EPA 8260B	1.0	03/15/18 13:27
trans-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,1,2-Trichloroethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Tetrachloroethene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
2-Hexanone (MBK)	ND	ug/L	EPA 8260B	25.0	03/15/18 13:27
Dibromochloromethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,2-Dibromoethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
CHLOROBENZENE	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
ETHYLBENZENE	ND	ug/L	EPA 8260B	1.0	03/15/18 13:27



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Water

**Batch ID:** 20103  
**Batch Date:** 3/15/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
o-Xylene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Styrene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Bromoform	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Isopropylbenzene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,1,2,2-Tetrachloroethane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,3-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,4-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,2-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,2-Dibromo-3-chloropropane	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
1,2,4-Trichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/15/18 13:27
Naphthalene	ND	ug/L	EPA 8260B	10.0	03/15/18 13:27
Ethyl t-butyl ether (ETBE)	ND	ug/L	EPA 8260B	25.0	03/15/18 13:27
tert-Butanol (TBA)	ND	ug/L	EPA 8260B	25.0	03/15/18 13:27
Diisopropyl ether (DIPE)	ND	ug/L	EPA 8260B	25.0	03/15/18 13:27
tert-Amyl methyl ether (TAME)	ND	ug/L	EPA 8260B	25.0	03/15/18 13:27
tert-Amyl alcohol (TAA)	ND	ug/L	EPA 8260B	25.0	03/15/18 13:27
tert-Amyl ethyl ether (TAEE)	ND	ug/L	EPA 8260B	25.0	03/15/18 13:27

Notes/Comments:

LLQ - Lowest Level of Quantitation

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



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: WATER

BATCH NUMBER: 20103

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
GP-4 / 18031407-01	3/15/2018 7:02:00 PM	98	99	103
GP-5 / 18031407-02	3/15/2018 7:33:00 PM	97	100	104
GP-3 / 18031407-03	3/15/2018 8:04:00 PM	98	98	103
GP-7 / 18031407-04	3/15/2018 8:34:00 PM	98	101	102
	Upper Limit	114	125	112
	Lower Limit	90	90	90

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20104  
MATRIX: WATER INSTRUMENT: VOC-PID/FID  
SAMPLE ID: LCS  
DATE ANALYZED: 3/15/2018 3:13:00 PM  
LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	4563.1	83	75 - 125

\* - 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:** GRO  
**Matrix:** Water

**Batch ID:** 20104  
**Batch Date:** 3/15/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/L	EPA 8015C	0.2	03/15/18 15:36

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: WATER

BATCH NUMBER: 20104

Sample ID	Date/Time Analyzed	TFT
GP-4 / 18031407-01	3/15/2018 10:08:00 PM	66
GP-5 / 18031407-02	3/15/2018 10:31:00 PM	65
GP-3 / 18031407-03	3/15/2018 10:54:00 PM	61
GP-7 / 18031407-04	3/15/2018 11:18:00 PM	64
	Upper Limit	124
	Lower Limit	49

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20101  
MATRIX: WATER INSTRUMENT: DRO1  
SAMPLE ID: LCS  
DATE ANALYZED: 3/15/2018 7:17:00 PM  
LAB FILE IDs: 57.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	502.8	99	77 - 140

\* - 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:** DRO  
**Matrix:** Water

**Batch ID:** 20101  
**Batch Date:** 3/15/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/L	EPA 8015C	0.2	03/15/18 18:42

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: WATER

BATCH NUMBER: 20101

Sample ID	Date/Time Analyzed	o-Terphenyl
GP-5 / 18031407-02	3/15/2018 7:17:00 PM	96
GP-3 / 18031407-03	3/15/2018 7:52:00 PM	90
	Upper Limit	130
	Lower Limit	52

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Hurlock						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-01
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:17	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:17	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 0:17	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 0:17	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 0:17	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 0:17	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 0:17	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:17	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 0:17	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Hurlock						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-01
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:17	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:17	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:17	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 0:17	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 0:17	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 0:17	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 0:17	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:17	GFH

Approved by:

QC Chemist

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID: Kaminkow</b>						<b>Date Sampled: 03/16/18</b>		<b>Lab ID: 18031609-02</b>
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:45	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:45	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 0:45	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 0:45	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 0:45	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 0:45	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 0:45	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:45	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 0:45	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Kaminkow						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-02
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:45	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:45	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 0:45	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 0:45	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 0:45	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 0:45	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 0:45	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 0:45	GFH

Approved by:

QC Chemist

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	<b>Kaminkow-Tenant House</b>			<b>Date Sampled:</b>	<b>03/16/18</b>		<b>Lab ID: 18031609-03</b>	
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:12	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:12	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 1:12	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 1:12	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 1:12	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 1:12	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 1:12	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:12	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 1:12	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	<b>Kaminkow-Tenant House</b>			<b>Date Sampled:</b>	<b>03/16/18</b>	<b>Lab ID: 18031609-03</b>		
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:12	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:12	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:12	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 1:12	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 1:12	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 1:12	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 1:12	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:12	GFH

Approved by:

QC Chemist

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Rasmussen						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-04
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:39	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:39	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 1:39	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 1:39	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 1:39	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 1:39	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 1:39	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:39	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 1:39	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	Rasmussen		<b>Date Sampled:</b> 03/16/18			<b>Lab ID:</b> 18031609-04		
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:39	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:39	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 1:39	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 1:39	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 1:39	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 1:39	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 1:39	GFH
tert-Amyl ethyl ether (TAE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 1:39	GFH

Approved by:

QC Chemist

**Notes/Qualifiers:**

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Kaminkow -Son						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-05
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:06	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:06	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 2:06	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 2:06	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 2:06	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 2:06	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 2:06	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:06	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 2:06	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Kaminkow -Son						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-05
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:06	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:06	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:06	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 2:06	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 2:06	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 2:06	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 2:06	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:06	GFH

Approved by:

QC Chemist

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> TransCanada						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-06
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:33	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:33	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 2:33	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 2:33	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 2:33	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 2:33	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 2:33	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:33	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 2:33	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	TransCanada					<b>Date Sampled:</b> 03/16/18	<b>Lab ID:</b> 18031609-06	
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:33	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:33	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 2:33	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 2:33	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 2:33	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 2:33	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 2:33	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 2:33	GFH

Approved by:

QC Chemist

**Notes/Qualifiers:**

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID: Parris (A)</b>						<b>Date Sampled: 03/16/18</b>		<b>Lab ID: 18031609-07</b>
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:00	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:00	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 3:00	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 3:00	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 3:00	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 3:00	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 3:00	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:00	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 3:00	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Parris (A)						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-07
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:00	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:00	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:00	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 3:00	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 3:00	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 3:00	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 3:00	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:00	GFH

Approved by:

QC Chemist

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Parris (B)						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-08
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:27	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:27	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 3:27	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 3:27	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 3:27	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 3:27	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 3:27	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:27	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 3:27	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b>	<b>Parris (B)</b>					<b>Date Sampled:</b> 03/16/18	<b>Lab ID:</b> 18031609-08	
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:27	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:27	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:27	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 3:27	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 3:27	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 3:27	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 3:27	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:27	GFH

Approved by:

QC Chemist

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Hornbeck						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-09
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:54	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:54	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 3:54	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 3:54	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 3:54	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 3:54	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 3:54	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:54	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 3:54	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Hornbeck						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-09
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:54	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:54	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 3:54	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 3:54	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 3:54	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 3:54	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 3:54	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 3:54	GFH

Approved by:

QC Chemist

**Notes/Qualifiers:**

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID: Reese</b>						<b>Date Sampled: 03/16/18</b>		<b>Lab ID: 18031609-10</b>
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:21	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:21	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 4:21	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 4:21	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 4:21	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 4:21	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 4:21	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:21	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 4:21	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:05  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID: Reese</b>						<b>Date Sampled: 03/16/18</b>		<b>Lab ID: 18031609-10</b>
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:21	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:21	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:21	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 4:21	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 4:21	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 4:21	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 4:21	GFH
tert-Amyl ethyl ether (TAEE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:21	GFH

Approved by:

QC Chemist

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:06  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID: Potter</b>						<b>Date Sampled: 03/16/18</b>		<b>Lab ID: 18031609-11</b>
<b>Volatile Organic Compounds</b>								
Benzene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:48	GFH
Bromobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Bromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Bromodichloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Bromoform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Bromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
n-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
sec-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
tert-Butylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Carbon tetrachloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:48	GFH
Chlorobenzene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 4:48	GFH
Chloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Chloroform	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Chloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
2-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
4-Chlorotoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Dibromochloromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,2-Dibromoethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Dibromomethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,2-Dichlorobenzene	ND	ug/L	0.5	600	EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,3-Dichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,4-Dichlorobenzene	ND	ug/L	0.5	75	EPA 524.2	03/19/18	03/20/18 4:48	GFH
Dichlorodifluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,1-Dichloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,2-Dichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,1-Dichloroethene	ND	ug/L	0.5	7	EPA 524.2	03/19/18	03/20/18 4:48	GFH
cis-1,2-Dichloroethene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 4:48	GFH
trans-1,2-Dichloroethene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,2-Dichloropropane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,3-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
2,2-Dichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,1-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
cis-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
trans-1,3-Dichloropropene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Ethylbenzene	ND	ug/L	0.5	700	EPA 524.2	03/19/18	03/20/18 4:48	GFH
Isopropylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
p-Isopropyltoluene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Methylene chloride	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:48	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	0.5	* 20	EPA 524.2	03/19/18	03/20/18 4:48	GFH
Naphthalene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Received: 03/16/18 16:45  
Date Issued: 05/08/18 12:06  
Matrix: Drinking Water

Project: Bel Air Event  
Site Location: Bel Air, MD

SDG Number: 18031609

	Result	Unit	LLQ	MCL	Method	Prepared	Analyzed	Init.
<b>Field Sample ID:</b> Potter						<b>Date Sampled:</b> 03/16/18		<b>Lab ID:</b> 18031609-11
<b>Volatile Organic Compounds</b>								
n-Propylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Styrene	ND	ug/L	0.5	100	EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,1,1,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Tetrachloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:48	GFH
Toluene	ND	ug/L	0.5	1000	EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,2,3-Trichlorobenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,2,4-Trichlorobenzene	ND	ug/L	0.5	70	EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,1,1-Trichloroethane	ND	ug/L	0.5	200	EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,1,2-Trichloroethane	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:48	GFH
Trichloroethene	ND	ug/L	0.5	5	EPA 524.2	03/19/18	03/20/18 4:48	GFH
Trichlorofluoromethane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,2,3-Trichloropropane	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,2,4-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
1,3,5-Trimethylbenzene	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Vinyl chloride	ND	ug/L	0.5	2	EPA 524.2	03/19/18	03/20/18 4:48	GFH
m&p-Xylene	ND	ug/L	1	7500	EPA 524.2	03/19/18	03/20/18 4:48	GFH
o-Xylene	ND	ug/L	0.5	2500	EPA 524.2	03/19/18	03/20/18 4:48	GFH
tert-Butanol (TBA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
Diisopropyl ether (DIPE)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	5		EPA 524.2	03/19/18	03/20/18 4:48	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/L	0.5		EPA 524.2	03/19/18	03/20/18 4:48	GFH

Approved by:

QC Chemist

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

MCL - Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are associated with regulated analytes. They are enforceable standards.

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

The above analyses performed by Maryland State Certified Water Quality Laboratory #320.

\* - Methyl t-butyl ether (MTBE) limit based on MDE guidance document. It is not federally promulgated or enforceable



Chain of Custody Record

Customer:	CPC
Contact/Report to:	Rob Shenk
Phone:	
Fax:	

E-mail address:	rshenk@colpipe.com
Project Name:	Bel Air Event
Project Number:	
Location:	Bel Air, MD

SDG Number:	18031609
Sampled by:	Seth Caplan
PO Number:	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Sampling Remarks/Comments		
						Preservative												
	HURLOCK	3/16/18	0918	3	GW	X												2935 Charles St.
	Kaminkow	3/16/18	0952	3	GW	X												2931 Charles St.
	FB	3/16/18	0950	2	GW	X												
	FB	3/16/18	1018	2	GW	X												
	Kaminkow Tenant House	3/16/18	1020	3	GW	X												2933 Charles St.
	FB	3/16/18	1112	2	GW	X												2936 Charles St.
	ROSMUSSEN	3/16/18	1118	3	GW	X												
	FB	3/16/18	1145	2	GW	X												
	Kaminkow son	3/16/18	1149	3	GW	X												2929 Charles St.
	FB	3/16/18	1238	2	GW	X												

Relinquished by:	<i>[Signature]</i>	Date/Time:	3/16/18 16:00	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	3/16/18 16:00	I II III CLP EDD	SAME DAY Temp: 9.6°C On/ice	STD Next Day 2-Day Other
Relinquished by:	<i>[Signature]</i>	Date/Time:	3/16/18 16:45	Custody Seals:	Comments/Special Instructions:	
Received by:	<i>[Signature]</i>	Date/Time:	3/16/18 16:45	Sample Cooler		
Relinquished by:		Date/Time:		Delivered by client		
Received by:		Date/Time:				



Chain of Custody Record

Customer:	CPC
Contact/Report to:	Rob Shenk
Phone:	
Fax:	

E-mail address:	rshenk@colpipe.com
Project Name:	Bel Air Event
Project Number:	
Location:	Bel Air, MD

SDG Number:	18031609
Sampled by:	Seth Capan
PO Number:	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Preservative	Sampling Remarks/ Comments	
	TransCanada	3/16/18	1240	3	GW	X												2220 Rutledge Rd.
	FB	3/16/18	1410	2	GW	X												2226 Rutledge Rd.
	Parris (A)	3/16/18	1422	3	GW	X												2226 Rutledge Rd.
	Parris (B)	3/16/18	1430	3	GW	X												2230 Rutledge Rd.
	Hornbeck	3/16/18	1445	3	GW	X												
	FB	3/16/18	1515	2	GW	X												3000 Charles St.
	Reise	3/16/18	1525	3	GW	X												
	FB	3/16/18	1543	2	GW	X												
	Potter	3/16/18	1548	3	GW	X												2932 Charles St.

Relinquished by:	<i>[Signature]</i>	Date/Time:	3/16/18 16:00	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	3/16/18 16:00	I II III CLP EDD	Temp: 9.6°C On Ice	STD Next Day 2-Day Other
Relinquished by:	<i>[Signature]</i>	Date/Time:	3/16/18 16:45	Custody Seals:	Comments/Special Instructions:	
Received by:	<i>[Signature]</i>	Date/Time:	3/16/18 16:45	Sample Cooler		
Relinquished by:		Date/Time:		Delivered by client		
Received by:		Date/Time:				



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

**METHOD:** EPA 524.2

**LAB CODE:** SURR

**MATRIX:** DRINKING WATER

**BATCH NUMBER:** 20119

Sample ID	Date/Time Analyzed	1,2-Dichlorobenzene-d4	4-Bromofluorobenzene
Hurlock / 18031609-01	3/20/2018 12:17:00 AM	105	104
Kaminkow / 18031609-02	3/20/2018 12:45:00 AM	106	106
Kaminkow-Tenant House / 18031609-03	3/20/2018 1:12:00 AM	102	102
Rasmussen / 18031609-04	3/20/2018 1:39:00 AM	98	99
Kaminkow -Son / 18031609-05	3/20/2018 2:06:00 AM	106	109
TransCanada / 18031609-06	3/20/2018 2:33:00 AM	97	98
Parris (A) / 18031609-07	3/20/2018 3:00:00 AM	98	98
Parris (B) / 18031609-08	3/20/2018 3:27:00 AM	98	98
Hornbeck / 18031609-09	3/20/2018 3:54:00 AM	96	94
Reese / 18031609-10	3/20/2018 4:21:00 AM	98	97
Potter / 18031609-11	3/20/2018 4:48:00 AM	94	95
	Upper Limit	120	120
	Lower Limit	70	70

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 524.2 BATCH NUMBER: 20119  
 MATRIX: DRINKING WATER INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/19/2018 11:22:00 PM  
 LAB FILE IDs: 03.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	5	NA	5.5	109	63 - 125
BENZENE	5	NA	5.6	112	68 - 126
CARBON TETRACHLORIDE	5	NA	5.7	114	66 - 132
CHLOROBENZENE	5	NA	5.7	113	67 - 137
CHLOROFORM	5	NA	5.6	112	67 - 133
M&P-XYLENE	10	NA	11.5	115	68 - 137
METHYL T-BUTYL ETHER (MTBE)	5	NA	5.7	115	63 - 140
TETRACHLOROETHENE	5	NA	5.8	117	65 - 134
TOLUENE	5	NA	5.7	114	68 - 130
TRICHLOROETHENE	5	NA	5.6	113	68 - 132
VINYL CHLORIDE	5	NA	5.7	113	49 - 135

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Drinking Water

**Batch ID:** 20119  
**Batch Date:** 3/19/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Benzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Bromobenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Bromochloromethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Bromodichloromethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Bromoform	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Bromomethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
n-Butylbenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
sec-Butylbenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
tert-Butylbenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Carbon tetrachloride	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
CHLOROBENZENE	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Chloroethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
CHLOROFORM	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Chloromethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
2-Chlorotoluene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
4-Chlorotoluene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Dibromochloromethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,2-Dibromo-3-chloropropane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,2-Dibromoethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Dibromomethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,2-Dichlorobenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,3-Dichlorobenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,4-Dichlorobenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Dichlorodifluoromethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,1-Dichloroethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,2-Dichloroethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,1-DICHLOROETHENE	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
cis-1,2-Dichloroethene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
trans-1,2-Dichloroethene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,2-DICHLOROPROPANE	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,3-Dichloropropane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
2,2-Dichloropropane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,1-Dichloropropene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
cis-1,3-Dichloropropene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
trans-1,3-Dichloropropene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
ETHYLBENZENE	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Isopropylbenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
p-Isopropyltoluene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Drinking Water

**Batch ID:** 20119  
**Batch Date:** 3/19/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Methylene chloride	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Methyl t-butyl ether (MTBE)	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Naphthalene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
n-Propylbenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Styrene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,1,1,2-Tetrachloroethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,1,2,2-Tetrachloroethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Tetrachloroethene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
TOLUENE	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,2,3-Trichlorobenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,2,4-Trichlorobenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,1,1-Trichloroethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,1,2-Trichloroethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Trichloroethene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Trichlorofluoromethane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,2,3-Trichloropropane	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,2,4-Trimethylbenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
1,3,5-Trimethylbenzene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
VINYL CHLORIDE	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
m&p-Xylene	ND	ug/L	EPA 524.2	1.0	03/19/18 23:50
o-Xylene	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
tert-Butanol (TBA)	ND	ug/L	EPA 524.2	5.0	03/19/18 23:50
Ethyl t-butyl ether (ETBE)	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
Diisopropyl ether (DIPE)	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
tert-Amyl methyl ether (TAME)	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50
tert-Amyl alcohol (TAA)	ND	ug/L	EPA 524.2	5.0	03/19/18 23:50
tert-Amyl ethyl ether (TAEE)	ND	ug/L	EPA 524.2	0.5	03/19/18 23:50

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: 04/05/18 9:05  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-1	Matrix: Water			Lab ID: 18040603-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 17:00	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Benzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Toluene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 17:00	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 17:00	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/05/18 9:05  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-1	Matrix: Water			Lab ID: 18040603-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Styrene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Bromoform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:00	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:00	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:00	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:00	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:00	GFH
tert-Amyl ethyl ether (TAAE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:00	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/10/18 11:54	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	04/10/18	04/10/18 10:38	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:   
QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 8:05  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-2	Matrix: Water			Lab ID: 18040603-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 17:31	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Benzene	<b>11</b>	ug/L	1	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Toluene	<b>29</b>	ug/L	1	EPA 8260B	04/10/18	04/10/18 17:31	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 17:31	GFH
m&p-Xylene	<b>6</b>	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
o-Xylene	<b>6</b>	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 8:05  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-2	Matrix: Water			Lab ID: 18040603-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Styrene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Bromoform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:31	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:31	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:31	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:31	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:31	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 17:31	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	0.28	mg/L	0.2	EPA 8015C	04/09/18	04/10/18 11:54	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	04/10/18	04/10/18 11:01	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:   
QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/05/18 10:30  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-3	Matrix: Water			Lab ID: 18040603-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 18:01	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Benzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Toluene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 18:01	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 18:01	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/05/18 10:30  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-3	Matrix: Water			Lab ID: 18040603-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Styrene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Bromoform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:01	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:01	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:01	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:01	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:01	GFH
tert-Amyl ethyl ether (TAAE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:01	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/10/18 12:29	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/09/18 19:40	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:   
QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/05/18 14:15  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-4	Matrix:	Water	Lab ID:	18040603-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 18:31	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Benzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Toluene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 18:31	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 18:31	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/05/18 14:15  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-4	Matrix:	Water	Lab ID:	18040603-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Styrene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Bromoform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:31	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:31	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:31	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:31	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:31	GFH
tert-Amyl ethyl ether (TAAE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 18:31	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	0.22	mg/L	0.2	EPA 8015C	04/09/18	04/10/18 12:29	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/09/18 20:04	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 10:15  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-5	Matrix: Water			Lab ID: 18040603-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 19:01	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Benzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Toluene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 19:01	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 19:01	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 10:15  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-5	Matrix: Water			Lab ID: 18040603-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Styrene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Bromoform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:01	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:01	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:01	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:01	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:01	GFH
tert-Amyl ethyl ether (TAAE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:01	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/10/18 13:04	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/09/18 20:27	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:   
QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 10:50  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-6	Matrix:	Water	Lab ID:	18040603-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 19:31	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Benzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Toluene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 19:31	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 19:31	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 10:50  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	MW-6	Matrix:	Water	Lab ID:	18040603-06		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Styrene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Bromoform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:31	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:31	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:31	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:31	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:31	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 19:31	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	0.21	mg/L	0.2	EPA 8015C	04/09/18	04/10/18 13:04	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/09/18 20:51	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 11:36  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	TB-01	Matrix: Water			Lab ID: 18040603-07		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 20:02	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Benzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 20:02	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Toluene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 20:02	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 20:02	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 11:36  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	TB-01	Matrix: Water			Lab ID: 18040603-07			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
Styrene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
Bromoform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
Naphthalene	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:02	GFH	
tert-Amyl ethyl ether (TAAE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:02	GFH	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 11:23  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	RB-01	Matrix: Water			Lab ID: 18040603-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 20:33	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Benzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Toluene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 20:33	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 20:33	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 11:23  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	RB-01	Matrix: Water			Lab ID: 18040603-08		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Styrene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Bromoform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:33	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:33	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:33	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:33	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:33	GFH
tert-Amyl ethyl ether (TAAE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 20:33	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/10/18 13:39	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/09/18 21:14	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 11:15  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	FB-01	Matrix: Water			Lab ID: 18040603-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 21:03	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Benzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Toluene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 21:03	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/10/18	04/10/18 21:03	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/06/18 11:15  
Date Received: 04/06/18 12:45  
Date Issued: 04/11/18

Project: Bel Air Event  
Site Location: Fallston, MD  
Project Number: 299980

SDG Number: 18040603

Field Sample ID:	FB-01	Matrix: Water			Lab ID: 18040603-09		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Styrene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Bromoform	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 21:03	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 21:03	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 21:03	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 21:03	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 21:03	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/L	25	EPA 8260B	04/10/18	04/10/18 21:03	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/10/18 13:39	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	04/09/18	04/09/18 21:38	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:   
QC Chemist



Chain of Custody Record

Customer:	TRC Environmental
Contact/Report to:	Brian Heckler
Phone:	267-261-3414
Fax:	

E-mail address:	BHeckler@TRCSolutions.com
Project Name:	CPC Belair
Project Number:	299980
Location:	Maryland

SDG Number:	18040603
Sampled by:	L. Romson
PO Number:	

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Analysis Requested										Preservative	Sampling Remarks/Comments	
	MW-1	4-5-18	0905	4	GW													
	MW-2	4-6-18	0805	12	GW													
	MW-3	4-5-18	1030	4	GW												MS/MSD	
	MW-4	4-5-18	1415	4	GW													
	MW-5	4-6-18	1015	4	GW													
	MW-6	4-6-18	1050	4	GW													
	TB-01	4-6-18	1136	2														
	RB-01	4-6-18	1123	4	<del>GW</del>													
	FB-01	4-6-18	1115	4	<del>GW</del>													

Relinquished by:	<i>[Signature]</i>	Date/Time:	4-6-18 1245	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	<i>[Signature]</i>	Date/Time:	4/6/18 12:45	I II III CLP EDD	Temp: <u>On Ice</u>	<u>STD</u> 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:				



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: WATER

BATCH NUMBER: 20223

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
MW-1 / 18040603-01	4/10/2018 5:00:00 PM	93	98	102
MW-2 / 18040603-02	4/10/2018 5:31:00 PM	91	100	102
MW-3 / 18040603-03	4/10/2018 6:01:00 PM	92	98	103
MW-4 / 18040603-04	4/10/2018 6:31:00 PM	92	99	102
MW-5 / 18040603-05	4/10/2018 7:01:00 PM	93	99	102
MW-6 / 18040603-06	4/10/2018 7:31:00 PM	93	99	102
TB-01 / 18040603-07	4/10/2018 8:02:00 PM	92	98	101
RB-01 / 18040603-08	4/10/2018 8:33:00 PM	93	95	103
FB-01 / 18040603-09	4/10/2018 9:03:00 PM	92	96	102
	Upper Limit	114	125	112
	Lower Limit	90	90	90

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20223  
 MATRIX: WATER INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 4/10/2018 12:28:00 PM  
 LAB FILE IDs: 08.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	25	NA	19.1	76	65 - 122
BENZENE	25	NA	19.4	78	66 - 127
CARBON TETRACHLORIDE	25	NA	21.5	86	62 - 133
CHLOROBENZENE	25	NA	20.2	81	63 - 109
CHLOROFORM	25	NA	20.3	81	66 - 126
M&P-XYLENE	50	NA	42.3	85	58 - 120
METHYL T-BUTYL ETHER (MTBE)	25	NA	21.9	87	69 - 139
TETRACHLOROETHENE	25	NA	22.7	91	58 - 128
TOLUENE	25	NA	22.0	88	62 - 127
TRICHLOROETHENE	25	NA	20.6	82	62 - 119
VINYL CHLORIDE	25	NA	23.9	95	68 - 130

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20223  
 MATRIX: WATER INSTRUMENT: VOC1  
 SAMPLE ID: 18040603-02 MS  
 DATE ANALYZED: 04/10/18 10:35 PM  
 LAB FILE IDs: 28.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	25	0	19	74	65 - 130
BENZENE	25	10.68	30	77	50 - 137
CARBON TETRACHLORIDE	25	0	21	82	70 - 130
CHLOROBENZENE	25	0	20	82	70 - 130
CHLOROFORM	25	0	20	82	70 - 130
M&P-XYLENE	50	6.41	48	82	32 - 164
METHYL T-BUTYL ETHER (MTBE)	25	0	23	91	70 - 130
TETRACHLOROETHENE	25	0	24	96	70 - 130
TOLUENE	25	28.61	49	83	43 - 142
TRICHLOROETHENE	25	0	22	89	70 - 130
VINYL CHLORIDE	25	0	19	75	65 - 130

SAMPLE ID: 18040603-02 MSD  
 DATE ANALYZED: 04/10/18 11:06 PM  
 LAB FILE IDs: 29.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPK DUP CONC (ppb)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	25	0	19	77	3.2	40	65 - 130
BENZENE	25	10.68	33	88	9.0	40	50 - 137
CARBON TETRACHLORIDE	25	0	22	88	6.8	40	70 - 130
CHLOROBENZENE	25	0	21	83	1.2	40	70 - 130
CHLOROFORM	25	0	20	81	0.3	40	70 - 130
M&P-XYLENE	50	6.41	50	87	4.4	40	32 - 164
METHYL T-BUTYL ETHER (MTBE)	25	0	22	88	3.5	40	70 - 130
TETRACHLOROETHENE	25	0	25	100	4.9	40	70 - 130
TOLUENE	25	28.61	56	109	12.4	40	43 - 142
TRICHLOROETHENE	25	0	23	91	2.8	40	70 - 130
VINYL CHLORIDE	25	0	18	73	2.8	40	65 - 130

\* - Indicates values outside of QC control limits.

**Calculations:**

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Water

**Batch ID:** 20223  
**Batch Date:** 4/10/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Chloromethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
VINYL CHLORIDE	ND	ug/L	EPA 8260B	1.0	04/10/18 12:58
Bromomethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Chloroethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Trichlorofluoromethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,1-DICHLOROETHENE	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,1,2-Trichlorotrifluoroethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Acetone	ND	ug/L	EPA 8260B	25.0	04/10/18 12:58
Carbon disulfide	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Methyl acetate	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Methylene chloride	ND	ug/L	EPA 8260B	10.0	04/10/18 12:58
trans-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Methyl t-butyl ether (MTBE)	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,1-Dichloroethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
cis-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
2-Butanone (MEK)	ND	ug/L	EPA 8260B	25.0	04/10/18 12:58
CHLOROFORM	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,1,1-Trichloroethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Cyclohexane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Carbon tetrachloride	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Benzene	ND	ug/L	EPA 8260B	1.0	04/10/18 12:58
1,2-Dichloroethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Trichloroethene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Methylcyclohexane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,2-DICHLOROPROPANE	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Bromodichloromethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
cis-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
4-Methyl-2-pentanone (MIBK)	ND	ug/L	EPA 8260B	25.0	04/10/18 12:58
TOLUENE	ND	ug/L	EPA 8260B	1.0	04/10/18 12:58
trans-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,1,2-Trichloroethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Tetrachloroethene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
2-Hexanone (MBK)	ND	ug/L	EPA 8260B	25.0	04/10/18 12:58
Dibromochloromethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,2-Dibromoethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
CHLOROBENZENE	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
ETHYLBENZENE	ND	ug/L	EPA 8260B	1.0	04/10/18 12:58



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Water

**Batch ID:** 20223  
**Batch Date:** 4/10/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
o-Xylene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Styrene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Bromoform	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Isopropylbenzene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,1,2,2-Tetrachloroethane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,3-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,4-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,2-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,2-Dibromo-3-chloropropane	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
1,2,4-Trichlorobenzene	ND	ug/L	EPA 8260B	5.0	04/10/18 12:58
Naphthalene	ND	ug/L	EPA 8260B	10.0	04/10/18 12:58
Ethyl t-butyl ether (ETBE)	ND	ug/L	EPA 8260B	25.0	04/10/18 12:58
tert-Butanol (TBA)	ND	ug/L	EPA 8260B	25.0	04/10/18 12:58
Diisopropyl ether (DIPE)	ND	ug/L	EPA 8260B	25.0	04/10/18 12:58
tert-Amyl methyl ether (TAME)	ND	ug/L	EPA 8260B	25.0	04/10/18 12:58
tert-Amyl alcohol (TAA)	ND	ug/L	EPA 8260B	25.0	04/10/18 12:58
tert-Amyl ethyl ether (TAEE)	ND	ug/L	EPA 8260B	25.0	04/10/18 12:58

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: WATER

BATCH NUMBER: 20219

Sample ID	Date/Time Analyzed	TFT
MW-1 / 18040603-01	4/10/2018 10:38:00 AM	87
MW-2 / 18040603-02	4/10/2018 11:01:00 AM	82
MW-3 / 18040603-03	4/9/2018 7:40:00 PM	91
MW-4 / 18040603-04	4/9/2018 8:04:00 PM	92
MW-5 / 18040603-05	4/9/2018 8:27:00 PM	78
MW-6 / 18040603-06	4/9/2018 8:51:00 PM	72
RB-01 / 18040603-08	4/9/2018 9:14:00 PM	91
FB-01 / 18040603-09	4/9/2018 9:38:00 PM	87

Upper Limit	124
Lower Limit	49

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20219  
MATRIX: WATER INSTRUMENT: VOC-PID/FID  
SAMPLE ID: LCS  
DATE ANALYZED: 4/9/2018 4:31:00 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	5011.6	91	75 - 125

\* - 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

GRO

## MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20219  
 MATRIX: WATER INSTRUMENT: VOC-PID/FID  
 SAMPLE ID: 18040602-02 MS  
 DATE ANALYZED: 04/09/18 10:48 PM  
 LAB FILE IDs: 19.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	177.09	5620	99	50 - 150

SAMPLE ID: 18040602-02 MSD  
 DATE ANALYZED: 04/09/18 11:12 PM  
 LAB FILE IDs: 20.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPK DUP CONC (ppb)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	177.09	5791	102	3.0	40	50 - 150

\* - Indicates values outside of QC control limits.

**Calculations:**

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** GRO  
**Matrix:** Water

**Batch ID:** 20219  
**Batch Date:** 4/9/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	04/09/18 16:55

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: WATER

BATCH NUMBER: 20214

Sample ID	Date/Time Analyzed	o-Terphenyl
MW-1 / 18040603-01	4/10/2018 11:54:00 AM	101
MW-2 / 18040603-02	4/10/2018 11:54:00 AM	103
MW-3 / 18040603-03	4/10/2018 12:29:00 PM	104
MW-4 / 18040603-04	4/10/2018 12:29:00 PM	104
MW-5 / 18040603-05	4/10/2018 1:04:00 PM	105
MW-6 / 18040603-06	4/10/2018 1:04:00 PM	104
RB-01 / 18040603-08	4/10/2018 1:39:00 PM	100
FB-01 / 18040603-09	4/10/2018 1:39:00 PM	104

Upper Limit	130
Lower Limit	52

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20214  
MATRIX: WATER INSTRUMENT: DRO1  
SAMPLE ID: LCS  
DATE ANALYZED: 4/10/2018 11:19:00 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	491.2	96	77 - 140

\* - 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

## DRO

### MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20214  
 MATRIX: WATER INSTRUMENT: DRO1  
 SAMPLE ID: 18040603-02 MS  
 DATE ANALYZED: 04/10/18 2:14 PM  
 LAB FILE IDs: 13.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPIKE CONC (mg/L)	SPIKE REC (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	279.07	777	98	25 - 154

SAMPLE ID: 18040603-02 MSD  
 DATE ANALYZED: 04/10/18 2:14 PM  
 LAB FILE IDs: 14.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONC (mg/L)	SPK DUP CONC (mg/L)	SPK DUP REC (%)	RPD (%)	QC RPD (%)	QC LIMITS (%)
DIESEL RANGE ORGANICS	510	279.07	747	92	4.0	40	25 - 154

\* - Indicates values outside of QC control limits.

#### Calculations:

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** DRO  
**Matrix:** Water

**Batch ID:** 20214  
**Batch Date:** 4/9/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/L	EPA 8015C	0.2	04/10/18 11:19

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: 04/16/18 13:30  
Date Received: 04/16/18 14:47  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041603

Field Sample ID:	MW-2	Matrix:	Water	Lab ID:	18041603-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/17/18	04/17/18 12:42	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Benzene	59	ug/L	1	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Toluene	200	ug/L	1	EPA 8260B	04/17/18	04/17/18 12:42	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Ethylbenzene	11	ug/L	1	EPA 8260B	04/17/18	04/17/18 12:42	GFH
m&p-Xylene	62	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
o-Xylene	36	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Styrene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/16/18 13:30  
Date Received: 04/16/18 14:47  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041603

Field Sample ID:	MW-2	Matrix:	Water	Lab ID:	18041603-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Bromoform	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 12:42	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 12:42	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 12:42	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 12:42	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 12:42	GFH
tert-Amyl ethyl ether (TAE)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 12:42	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:   
QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/16/18 14:00  
Date Received: 04/16/18 14:47  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041603

Field Sample ID: FB- 01 Matrix: Water Lab ID: 18041603-02

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/17/18	04/17/18 13:12	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Benzene	ND	ug/L	1	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Toluene	ND	ug/L	1	EPA 8260B	04/17/18	04/17/18 13:12	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/17/18	04/17/18 13:12	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Styrene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/16/18 14:00  
Date Received: 04/16/18 14:47  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041603

Field Sample ID:	FB- 01	Matrix:	Water	Lab ID:	18041603-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Bromoform	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:12	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:12	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:12	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:12	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:12	GFH
tert-Amyl ethyl ether (TAEF)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:12	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:   
QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/16/18  
Date Received: 04/16/18 14:47  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041603

Field Sample ID:	TB- 01	Matrix:	Water	Lab ID:	18041603-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Acetone	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	04/17/18	04/17/18 13:43	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Chloroform	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Benzene	ND	ug/L	1	EPA 8260B	04/17/18	04/17/18 13:43	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Toluene	ND	ug/L	1	EPA 8260B	04/17/18	04/17/18 13:43	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	04/17/18	04/17/18 13:43	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH
Styrene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 04/16/18  
Date Received: 04/16/18 14:47  
Date Issued: 04/17/18

Project: Bel Air Event  
Site Location: Fallston, MD

SDG Number: 18041603

Field Sample ID:	TB- 01	Matrix:	Water	Lab ID:	18041603-03			
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
Bromoform	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
Isopropylbenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
Naphthalene	ND	ug/L	10	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:43	GFH	
tert-Amyl ethyl ether (TAE)	ND	ug/L	25	EPA 8260B	04/17/18	04/17/18 13:43	GFH	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist





# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: WATER

BATCH NUMBER: 20267

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
MW-2 / 18041603-01	4/17/2018 12:42:00 PM	94	101	102
FB- 01 / 18041603-02	4/17/2018 1:12:00 PM	94	99	103
TB- 01 / 18041603-03	4/17/2018 1:43:00 PM	93	102	101
	Upper Limit	114	125	112
	Lower Limit	90	90	90

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20267  
 MATRIX: WATER INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 4/17/2018 11:42:00 AM  
 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	17.7	71	65 - 122
BENZENE	25	NA	19.1	77	66 - 127
CARBON TETRACHLORIDE	25	NA	22.1	88	62 - 133
CHLOROBENZENE	25	NA	22.3	89	63 - 109
CHLOROFORM	25	NA	20.0	80	66 - 126
M&P-XYLENE	50	NA	47.0	94	58 - 120
METHYL T-BUTYL ETHER (MTBE)	25	NA	20.6	82	69 - 139
TETRACHLOROETHENE	25	NA	24.2	97	58 - 128
TOLUENE	25	NA	22.3	89	62 - 127
TRICHLOROETHENE	25	NA	21.7	87	62 - 119
VINYL CHLORIDE	25	NA	22.2	89	68 - 130

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Water

**Batch ID:** 20267  
**Batch Date:** 4/17/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Chloromethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
VINYL CHLORIDE	ND	ug/L	EPA 8260B	1.0	04/17/18 12:12
Bromomethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Chloroethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Trichlorofluoromethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,1-DICHLOROETHENE	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,1,2-Trichlorotrifluoroethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Acetone	ND	ug/L	EPA 8260B	25.0	04/17/18 12:12
Carbon disulfide	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Methyl acetate	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Methylene chloride	ND	ug/L	EPA 8260B	10.0	04/17/18 12:12
trans-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Methyl t-butyl ether (MTBE)	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,1-Dichloroethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
cis-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
2-Butanone (MEK)	ND	ug/L	EPA 8260B	25.0	04/17/18 12:12
CHLOROFORM	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,1,1-Trichloroethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Cyclohexane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Carbon tetrachloride	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Benzene	ND	ug/L	EPA 8260B	1.0	04/17/18 12:12
1,2-Dichloroethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Trichloroethene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Methylcyclohexane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,2-DICHLOROPROPANE	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Bromodichloromethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
cis-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
4-Methyl-2-pentanone (MIBK)	ND	ug/L	EPA 8260B	25.0	04/17/18 12:12
TOLUENE	ND	ug/L	EPA 8260B	1.0	04/17/18 12:12
trans-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,1,2-Trichloroethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Tetrachloroethene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
2-Hexanone (MBK)	ND	ug/L	EPA 8260B	25.0	04/17/18 12:12
Dibromochloromethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,2-Dibromoethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
CHLOROBENZENE	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
ETHYLBENZENE	ND	ug/L	EPA 8260B	1.0	04/17/18 12:12



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Water

**Batch ID:** 20267  
**Batch Date:** 4/17/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
o-Xylene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Styrene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Bromoform	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Isopropylbenzene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,1,2,2-Tetrachloroethane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,3-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,4-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,2-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,2-Dibromo-3-chloropropane	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
1,2,4-Trichlorobenzene	ND	ug/L	EPA 8260B	5.0	04/17/18 12:12
Naphthalene	ND	ug/L	EPA 8260B	10.0	04/17/18 12:12
Ethyl t-butyl ether (ETBE)	ND	ug/L	EPA 8260B	25.0	04/17/18 12:12
tert-Butanol (TBA)	ND	ug/L	EPA 8260B	25.0	04/17/18 12:12
Diisopropyl ether (DIPE)	ND	ug/L	EPA 8260B	25.0	04/17/18 12:12
tert-Amyl methyl ether (TAME)	ND	ug/L	EPA 8260B	25.0	04/17/18 12:12
tert-Amyl alcohol (TAA)	ND	ug/L	EPA 8260B	25.0	04/17/18 12:12
tert-Amyl ethyl ether (TAEE)	ND	ug/L	EPA 8260B	25.0	04/17/18 12:12

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: 03/12/18 14:30  
Date Received: 03/12/18 15:58  
Date Issued: 03/13/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031208

Field Sample ID:	West Branch-Winters Run- Up Stream		Matrix:	Water	Lab ID: 18031208-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Acetone	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	03/12/18	03/12/18 21:46	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Chloroform	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Benzene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 21:46	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Toluene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 21:46	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 21:46	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH
Styrene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/12/18 14:30  
Date Received: 03/12/18 15:58  
Date Issued: 03/13/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031208

Field Sample ID:	West Branch-Winters Run- Up Stream			Matrix:	Water	Lab ID: 18031208-01		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
Bromoform	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
Naphthalene	ND	ug/L	10	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
tert-Amyl ethyl ether (TAE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 21:46	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/L	0.2	EPA 8015C	03/13/18	03/13/18 12:21	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	03/13/18	03/13/18 10:37	GFH	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/12/18 14:38  
Date Received: 03/12/18 15:58  
Date Issued: 03/13/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031208

Field Sample ID: West Branch-Winters Run- Down Stream Matrix: Water Lab ID: 18031208-02

	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Acetone	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	03/12/18	03/12/18 22:16	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Chloroform	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Benzene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 22:16	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Toluene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 22:16	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 22:16	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH
Styrene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/12/18 14:38  
Date Received: 03/12/18 15:58  
Date Issued: 03/13/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031208

Field Sample ID:	West Branch-Winters Run- Down Stream			Matrix:	Water	Lab ID: 18031208-02		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
Bromoform	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
Naphthalene	ND	ug/L	10	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
tert-Amyl ethyl ether (TAAE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:16	GFH	
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>								
Diesel Range Organics	ND	mg/L	0.2	EPA 8015C	03/13/18	03/13/18 12:21	AC	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	03/13/18	03/13/18 11:00	GFH	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/12/18 14:20  
Date Received: 03/12/18 15:58  
Date Issued: 03/13/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031208

Field Sample ID:	Ditch Confluence	Matrix:	Water	Lab ID:	18031208-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Acetone	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	03/12/18	03/12/18 22:46	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Chloroform	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Benzene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Toluene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 22:46	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 22:46	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Styrene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/12/18 14:20  
Date Received: 03/12/18 15:58  
Date Issued: 03/13/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031208

Field Sample ID:	Ditch Confluence	Matrix:	Water	Lab ID:	18031208-03		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Bromoform	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:46	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:46	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:46	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:46	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:46	GFH
tert-Amyl ethyl ether (TAE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 22:46	GFH
<b>Total Petroleum Hydrocarbons - (C10-C28) DRO</b>							
Diesel Range Organics	ND	mg/L	0.2	EPA 8015C	03/13/18	03/13/18 12:56	AC
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	03/13/18	03/13/18 11:24	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/12/18 14:40  
Date Received: 03/12/18 15:58  
Date Issued: 03/13/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031208

Field Sample ID:	Field Blank - Downstream	Matrix:	Water	Lab ID:	18031208-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Acetone	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	03/12/18	03/12/18 23:16	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Chloroform	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Benzene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Toluene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 23:16	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 23:16	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Styrene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/12/18 14:40  
Date Received: 03/12/18 15:58  
Date Issued: 03/13/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031208

Field Sample ID:	Field Blank - Downstream	Matrix:	Water	Lab ID:	18031208-04		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Bromoform	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Naphthalene	ND	ug/L	10	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:16	GFH
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:16	GFH
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:16	GFH
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:16	GFH
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:16	GFH
tert-Amyl ethyl ether (TAE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:16	GFH
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>							
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	03/13/18	03/13/18 11:47	GFH

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/12/18  
Date Received: 03/12/18 15:58  
Date Issued: 03/13/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031208

Field Sample ID:	Winters Run Trip Blank	Matrix:	Water	Lab ID:	18031208-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.
<b>Target Compound List - VOLATILES</b>							
Dichlorodifluoromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Chloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Vinyl chloride	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Bromomethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Chloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Trichlorofluoromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
1,1-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
1,1,2-Trichlorotrifluoroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Acetone	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Carbon disulfide	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Methyl acetate	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Methylene chloride	ND	ug/L	10	EPA 8260B	03/12/18	03/12/18 23:46	GFH
trans-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Methyl t-butyl ether (MTBE)	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
1,1-Dichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
cis-1,2-Dichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
2-Butanone (MEK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Chloroform	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
1,1,1-Trichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Cyclohexane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Carbon tetrachloride	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Benzene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 23:46	GFH
1,2-Dichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Trichloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Methylcyclohexane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
1,2-Dichloropropane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Bromodichloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
cis-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Toluene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 23:46	GFH
trans-1,3-Dichloropropene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
1,1,2-Trichloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Tetrachloroethene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
2-Hexanone (MBK)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Dibromochloromethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
1,2-Dibromoethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Chlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Ethylbenzene	ND	ug/L	1	EPA 8260B	03/12/18	03/12/18 23:46	GFH
m&p-Xylene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
o-Xylene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH
Styrene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH



# CALIBER ANALYTICAL SERVICES

## Certificate of Analysis

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

Date Sampled: 03/12/18  
Date Received: 03/12/18 15:58  
Date Issued: 03/13/18

Project: Bel Air Event  
Site Location: Bel Air Station

SDG Number: 18031208

Field Sample ID:	Winters Run Trip Blank			Matrix:	Water	Lab ID: 18031208-05		
	Result	Unit	LLQ	Method	Prepared	Analyzed	Init.	
<b>Target Compound List - VOLATILES</b>								
Bromoform	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
Isopropylbenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
1,1,2,2-Tetrachloroethane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
1,3-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
1,4-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
1,2-Dichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
1,2-Dibromo-3-chloropropane	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
1,2,4-Trichlorobenzene	ND	ug/L	5	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
Naphthalene	ND	ug/L	10	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
Ethyl t-butyl ether (ETBE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
tert-Butanol (TBA)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
Diisopropyl ether (DIPE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
tert-Amyl methyl ether (TAME)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
tert-Amyl alcohol (TAA)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
tert-Amyl ethyl ether (TAE)	ND	ug/L	25	EPA 8260B	03/12/18	03/12/18 23:46	GFH	
<b>Total Petroleum Hydrocarbons - (C6-C10) GRO</b>								
Gasoline Range Organics	ND	mg/L	0.2	EPA 8015C	03/13/18	03/13/18 12:11	GFH	

Notes/Qualifiers:

LLQ- Lowest Level of Quantitation

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

Approved by:

QC Chemist



Chain of Custody Record

Customer:	Colonial Pipeline
Contact/Report to:	Rob Shewell
Phone:	410-970-2126
Fax:	

E-mail address:	robshewell@colonialpipeline.com
Project Name:	3rd Air Event
Project Number:	
Location:	3rd Av Station

SDG Number:	18031208
Sampled by:	
PO Number:	

Analysis Requested

Lab Number	Field Sample ID	Date Sampled	Time Sampled	No. of Bottles	Matrix	Preservative										Sampling Remarks/ Comments	
						Full suite 8260 + NAPHTHENE	8015 PRO	8015 GRO									
	West Branch - upstream	3/12/18	1430	4	H <sub>2</sub> O	✓	✓	✓									
	West Branch - downstream	3/12/18	1438	4	H <sub>2</sub> O	✓	✓	—									
	West Branch - Ditch	3/12/18															
	Ditch on Avenue	3/12/18	1420	4	H <sub>2</sub> O	✓	✓	✓									Ditch Creek that leads to West Branch
	Field Blank - downstream	3/12/18	1440	2	H <sub>2</sub> O	✓		✓									
	Trip blank	3/12/18	—	2	H <sub>2</sub> O	✓		✓									

Relinquished by:	Rob Shewell	Date/Time:	3/12/18 1550	Deliverables:	Receipt Temperature:	Turnaround Time:
Received by:	W. [Signature]	Date/Time:	3/12/18 1558	I II III CLP EDD	Temp: 9.4 On Ice	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:				



# CALIBER ANALYTICAL SERVICES

## VOLATILES

### SYSTEM MONITORING COMPOUND RECOVERY (SURROGATES)

METHOD: EPA 8260B

LAB CODE: SURR

MATRIX: WATER

BATCH NUMBER: 20082

Sample ID	Date/Time Analyzed	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
West Branch-Winters Run- Up Stream / 18031208-01	3/12/2018 9:46:00 PM	98	103	103
West Branch-Winters Run- Down Stream / 18031208-02	3/12/2018 10:16:00 PM	97	104	105
Ditch Confluence / 18031208-03	3/12/2018 10:46:00 PM	95	103	106
Field Blank - Downstream / 18031208-04	3/12/2018 11:16:00 PM	97	103	103
Winters Run Trip Blank / 18031208-05	3/12/2018 11:46:00 PM	98	102	104
	Upper Limit	114	125	112
	Lower Limit	90	90	90

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## VOLATILES LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8260B BATCH NUMBER: 20082  
 MATRIX: WATER INSTRUMENT: VOC1  
 SAMPLE ID: LCS  
 DATE ANALYZED: 3/12/2018 8:45:00 PM  
 LAB FILE IDs: 20.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
1,1-DICHLOROETHENE	25	NA	20.5	82	65 - 122
BENZENE	25	NA	23.1	92	66 - 127
CARBON TETRACHLORIDE	25	NA	25.4	101	62 - 133
CHLOROBENZENE	25	NA	23.7	95	63 - 109
CHLOROFORM	25	NA	25.4	101	66 - 126
M&P-XYLENE	50	NA	48.2	96	58 - 120
METHYL T-BUTYL ETHER (MTBE)	25	NA	24.5	98	69 - 139
TETRACHLOROETHENE	25	NA	25.7	103	58 - 128
TOLUENE	25	NA	24.4	98	62 - 127
TRICHLOROETHENE	25	NA	24.0	96	62 - 119
VINYL CHLORIDE	25	NA	23.0	92	68 - 130

\* - Indicates values outside of QC control limits.

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

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



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Water

**Batch ID:** 20082  
**Batch Date:** 3/12/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
Dichlorodifluoromethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Chloromethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
VINYL CHLORIDE	ND	ug/L	EPA 8260B	1.0	03/12/18 21:15
Bromomethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Chloroethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Trichlorofluoromethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,1-DICHLOROETHENE	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,1,2-Trichlorotrifluoroethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Acetone	ND	ug/L	EPA 8260B	25.0	03/12/18 21:15
Carbon disulfide	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Methyl acetate	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Methylene chloride	ND	ug/L	EPA 8260B	10.0	03/12/18 21:15
trans-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Methyl t-butyl ether (MTBE)	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,1-Dichloroethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
cis-1,2-Dichloroethene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
2-Butanone (MEK)	ND	ug/L	EPA 8260B	25.0	03/12/18 21:15
CHLOROFORM	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,1,1-Trichloroethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Cyclohexane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Carbon tetrachloride	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Benzene	ND	ug/L	EPA 8260B	1.0	03/12/18 21:15
1,2-Dichloroethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Trichloroethene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Methylcyclohexane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,2-DICHLOROPROPANE	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Bromodichloromethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
cis-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
4-Methyl-2-pentanone (MIBK)	ND	ug/L	EPA 8260B	25.0	03/12/18 21:15
TOLUENE	ND	ug/L	EPA 8260B	1.0	03/12/18 21:15
trans-1,3-Dichloropropene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,1,2-Trichloroethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Tetrachloroethene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
2-Hexanone (MBK)	ND	ug/L	EPA 8260B	25.0	03/12/18 21:15
Dibromochloromethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,2-Dibromoethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
CHLOROBENZENE	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
ETHYLBENZENE	ND	ug/L	EPA 8260B	1.0	03/12/18 21:15



# CALIBER ANALYTICAL SERVICES

## METHOD BLANK RESULTS

**Analysis:** Volatiles  
**Matrix:** Water

**Batch ID:** 20082  
**Batch Date:** 3/12/2018

	Result	Unit	Method	LLQ	Date / Time Analyzed
m&p-Xylene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
o-Xylene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Styrene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Bromoform	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Isopropylbenzene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,1,2,2-Tetrachloroethane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,3-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,4-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,2-Dichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,2-Dibromo-3-chloropropane	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
1,2,4-Trichlorobenzene	ND	ug/L	EPA 8260B	5.0	03/12/18 21:15
Naphthalene	ND	ug/L	EPA 8260B	10.0	03/12/18 21:15
Ethyl t-butyl ether (ETBE)	ND	ug/L	EPA 8260B	25.0	03/12/18 21:15
tert-Butanol (TBA)	ND	ug/L	EPA 8260B	25.0	03/12/18 21:15
Diisopropyl ether (DIPE)	ND	ug/L	EPA 8260B	25.0	03/12/18 21:15
tert-Amyl methyl ether (TAME)	ND	ug/L	EPA 8260B	25.0	03/12/18 21:15
tert-Amyl alcohol (TAA)	ND	ug/L	EPA 8260B	25.0	03/12/18 21:15
tert-Amyl ethyl ether (TAEE)	ND	ug/L	EPA 8260B	25.0	03/12/18 21:15

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: K 5 H9F

BATCH NUMBER: 20083

Sample ID	Date/Time Analyzed	TFT
West Branch-Winters Run- Up Stream / 18031208-01	3/13/2018 10:37:00 AM	75
West Branch-Winters Run- Down Stream / 18031208-02	3/13/2018 11:00:00 AM	76
Ditch Confluence / 18031208-03	3/13/2018 11:24:00 AM	64
Field Blank - Downstream / 18031208-04	3/13/2018 11:47:00 AM	68
Winters Run Trip Blank / 18031208-05	3/13/2018 12:11:00 PM	70
	Upper Limit	118
	Lower Limit	32

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## GRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20083  
MATRIX: K 5H9F INSTRUMENT: VOC-PID/FID  
SAMPLE ID: LCS  
DATE ANALYZED: 3/13/2018 9:50:00 AM  
LAB FILE IDs: 02.D

SAMPLE SPIKE COMPOUND	SPIKE ADDED (ppb)	SAMPLE CONC (ppb)	SPIKE CONC (ppb)	SPIKE REC (%)	QC LIMITS (%)
GASOLINE RANGE ORGANICS	5500	NA	5674.3	103	75 - 125

\* - 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:** GRO  
**Matrix:** K UHf

**Batch ID:** 20083  
**Batch Date:** 3/13/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Gasoline Range Organics	ND	mg/kg	EPA 8015C	0.2	03/13/18 10:13

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: WATER

BATCH NUMBER: 20077

Sample ID	Date/Time Analyzed	o-Terphenyl
West Branch-Winters Run- Up Stream / 18031208-01	3/13/2018 12:21:00 PM	95
West Branch-Winters Run- Down Stream / 18031208-02	3/13/2018 12:21:00 PM	98
Ditch Confluence / 18031208-03	3/13/2018 12:56:00 PM	97
	Upper Limit	130
	Lower Limit	52

\* - Indicates values outside of QC control limits.



# CALIBER ANALYTICAL SERVICES

## DRO LABORATORY CONTROL SAMPLE SUMMARY

METHOD: EPA 8015C BATCH NUMBER: 20077  
MATRIX: WATER INSTRUMENT: DRO1  
SAMPLE ID: LCS  
DATE ANALYZED: 3/13/2018 11:46:00 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	512.3	100	77 - 140

\* - 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:** DRO  
**Matrix:** Water

**Batch ID:** 20077  
**Batch Date:** 3/13/2018

	<b>Result</b>	<b>Unit</b>	<b>Method</b>	<b>LLQ</b>	<b>Date / Time Analyzed</b>
Diesel Range Organics	ND	mg/L	EPA 8015C	0.2	03/13/18 11:46

Notes/Comments:

LLQ - Lowest Level of Quantitation

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

# Analytical Report for

**TRC (Philadelphia)**

**Certificate of Analysis No.: 18031406**

**Project Manager: Brian Hecker**

**Project Name : Bel Air Event**

**Project Location: Fallston, MD**

**Project ID : 299980**



**March 16, 2018**

**Phase Separation Science, Inc.**

**6630 Baltimore National Pike**

**Baltimore, MD 21228**

**Phone: (410) 747-8770**

**Fax: (410) 788-8723**

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# PHASE SEPARATION SCIENCE, INC.



March 16, 2018

**Brian Hecker**  
**TRC (Philadelphia)**  
1601 Market Street Suite 2555  
Philadelphia, PA 19103

Reference: PSS Work Order(s) No: **18031406**  
Project Name: Bel Air Event  
Project Location: Fallston, MD  
Project ID.: 299980

Dear Brian Hecker :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **18031406**. This report has been revised to provide additional overlays. The sample results are not impacted by this revision. This report cancels and supersedes report version 1.000 dated March 15, 2018.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 18, 2018, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or [info@phaseonline.com](mailto:info@phaseonline.com).

Sincerely,

**Dan Prucnal**

Laboratory Manager



# Sample Summary

**Client Name: TRC (Philadelphia)**  
**Project Name: Bel Air Event**

**Work Order Number(s): 18031406**

**Project ID: 299980**

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/14/2018 at 10:24 am

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
18031406-001	North	OIL	03/13/18 11:00
18031406-002	South	OIL	03/13/18 14:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

**Notes:**

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

**Standard Flags/Abbreviations:**

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

**Certifications:**

NELAP Certifications: PA 68-03330, VA 460156  
State Certifications: MD 179, WV 303  
Regulated Soil Permit: P330-12-00268  
NSWC USCG Accepted Laboratory  
LDBE MWAA LD1997-0041-2015

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# PHASE SEPARATION SCIENCE, INC.



## CERTIFICATE OF ANALYSIS

No: 18031406

TRC (Philadelphia), Philadelphia, PA

March 16, 2018

Project Name: Bel Air Event  
 Project Location: Fallston, MD  
 Project ID: 299980

**Sample ID: North**      **Date/Time Sampled: 03/13/2018 11:00**      **PSS Sample ID: 18031406-001**  
**Matrix: OIL**      **Date/Time Received: 03/14/2018 10:24**

Total Lead      Analytical Method: SW-846 6020 A      Preparation Method: D7455

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Lead	ND	mg/kg	4.5		10	03/14/18	03/15/18 13:17	1051

Product Identification      Analytical Method: SW-846 8015 C      Preparation Method: SW3550C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
See attached fingerprint and case narrative.						03/14/18	03/14/18 12:33	1059

Purgeable Aromatics      Analytical Method: SW-846 8021B      Preparation Method: 5030

*USEPA methods recommend that the appearance of detectable levels of the 8021B compounds below be confirmed when unfamiliar samples are analyzed.*

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Benzene	ND	ug/kg	250,000		5000	03/15/18	03/15/18 12:11	1035
Ethylbenzene	ND	ug/kg	250,000		5000	03/15/18	03/15/18 12:11	1035
Methyl-t-Butyl Ether	ND	ug/kg	250,000		5000	03/15/18	03/15/18 12:11	1035
Naphthalene	<b>4,200,000</b>	ug/kg	250,000		5000	03/15/18	03/15/18 12:11	1035
Toluene	ND	ug/kg	250,000		5000	03/15/18	03/15/18 12:11	1035
m&p-Xylene	ND	ug/kg	500,000		5000	03/15/18	03/15/18 12:11	1035
o-Xylene	ND	ug/kg	250,000		5000	03/15/18	03/15/18 12:11	1035

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# PHASE SEPARATION SCIENCE, INC.



## CERTIFICATE OF ANALYSIS

No: 18031406

TRC (Philadelphia), Philadelphia, PA

March 16, 2018

Project Name: Bel Air Event  
 Project Location: Fallston, MD  
 Project ID: 299980

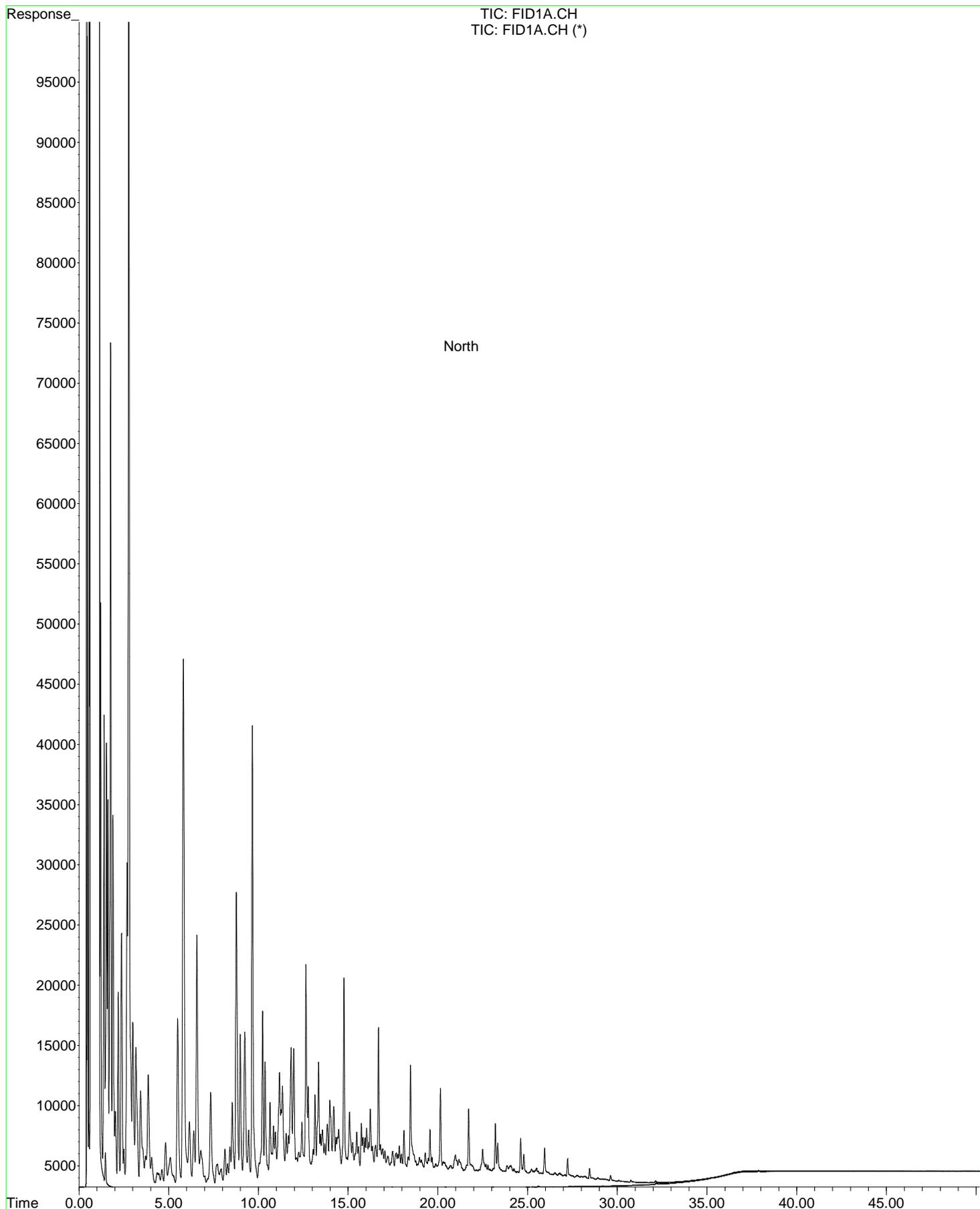
**Sample ID: South**      **Date/Time Sampled: 03/13/2018 14:00**      **PSS Sample ID: 18031406-002**  
**Matrix: OIL**      **Date/Time Received: 03/14/2018 10:24**

Total Lead	Analytical Method: SW-846 6020 A				Preparation Method: D7455			
	<b>Result</b>	<b>Units</b>	<b>RL</b>	<b>Flag</b>	<b>Dil</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Analyst</b>
Lead	ND	mg/kg	4.9		10	03/14/18	03/15/18 13:28	1051

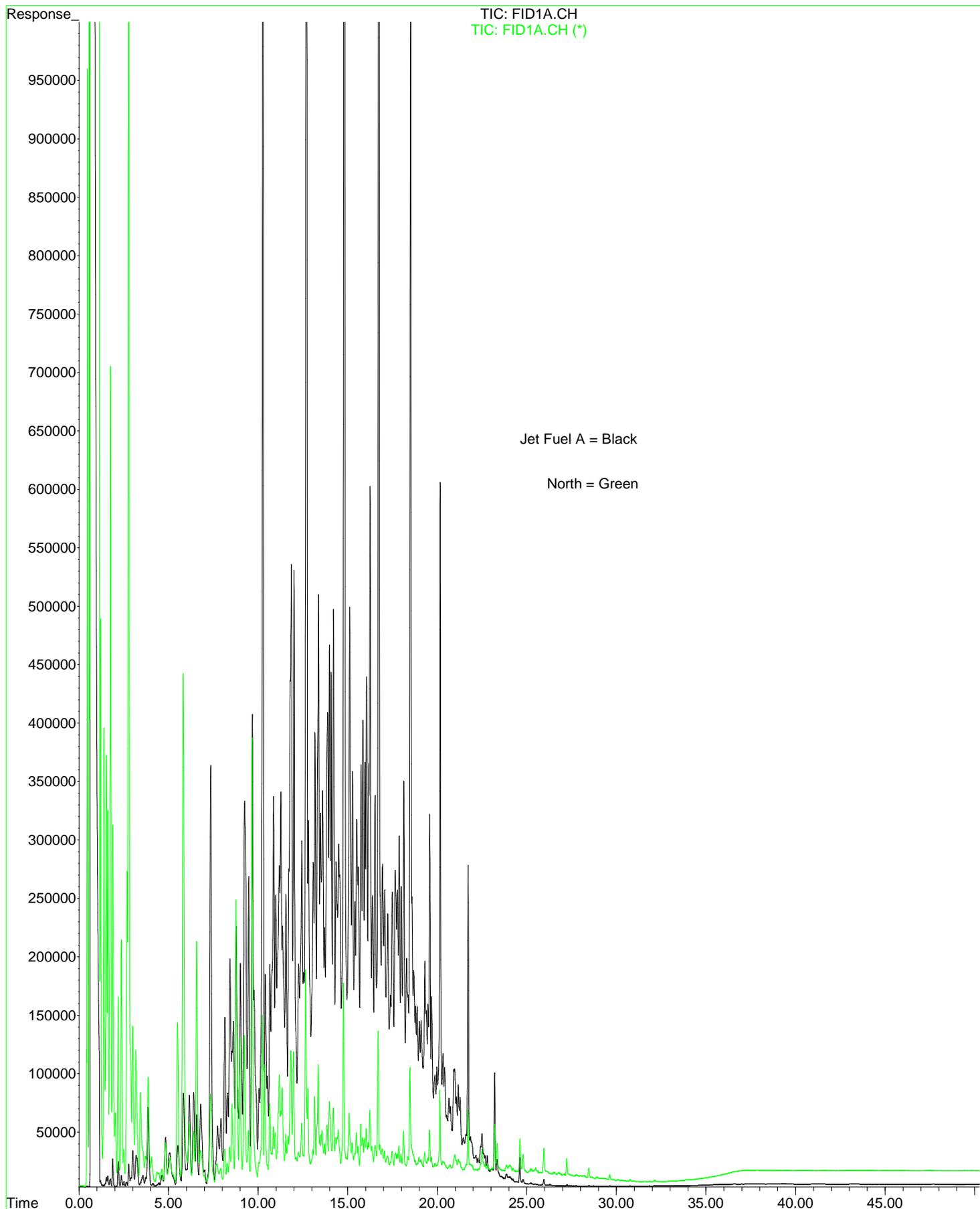
Product Identification	Analytical Method: SW-846 8015 C				Preparation Method: SW3550C			
	<b>Result</b>	<b>Units</b>	<b>RL</b>	<b>Flag</b>	<b>Dil</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Analyst</b>
See attached fingerprint and case narrative.						03/14/18	03/14/18 11:34	1059

Purgeable Aromatics	Analytical Method: SW-846 8021B				Preparation Method: 5030			
<i>USEPA methods recommend that the appearance of detectable levels of the 8021B compounds below be confirmed when unfamiliar samples are analyzed.</i>								
	<b>Result</b>	<b>Units</b>	<b>RL</b>	<b>Flag</b>	<b>Dil</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Analyst</b>
Benzene	<b>640,000</b>	ug/kg	10,000		200	03/15/18	03/15/18 10:33	1035
Ethylbenzene	<b>2,100,000</b>	ug/kg	10,000		200	03/15/18	03/15/18 10:33	1035
Methyl-t-Butyl Ether	<b>370,000</b>	ug/kg	10,000		200	03/15/18	03/15/18 10:33	1035
Naphthalene	<b>190,000</b>	ug/kg	10,000		200	03/15/18	03/15/18 10:33	1035
Toluene	<b>4,200,000</b>	ug/kg	10,000		200	03/15/18	03/15/18 10:33	1035
m&p-Xylene	<b>4,900,000</b>	ug/kg	20,000		200	03/15/18	03/15/18 10:33	1035
o-Xylene	<b>3,700,000</b>	ug/kg	10,000		200	03/15/18	03/15/18 10:33	1035

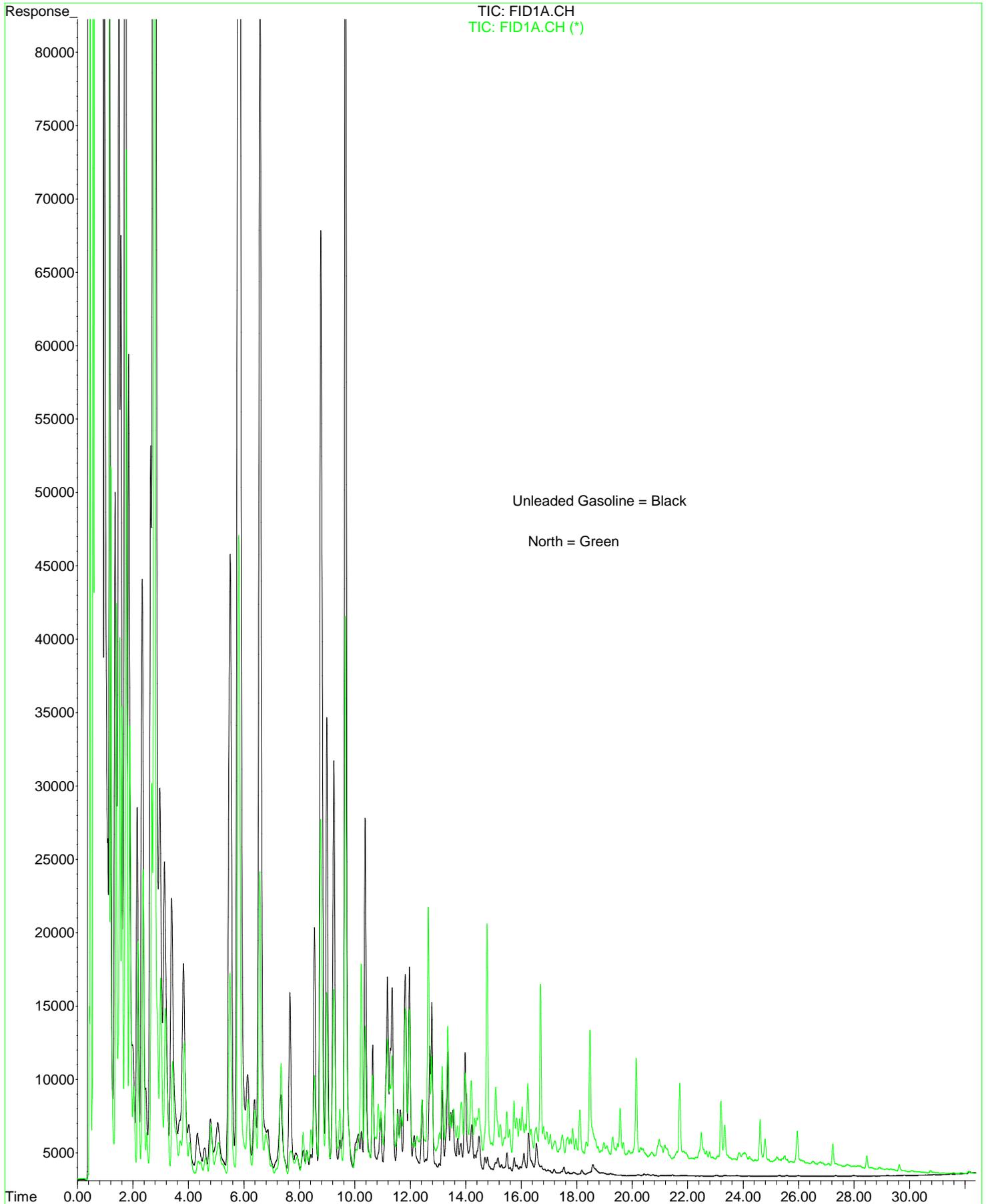
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Operator : AS  
Acquired : 14 Mar 2018 1:31 pm using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Instrument Blank  
Misc Info : Instrument Blank  
Vial Number: 98



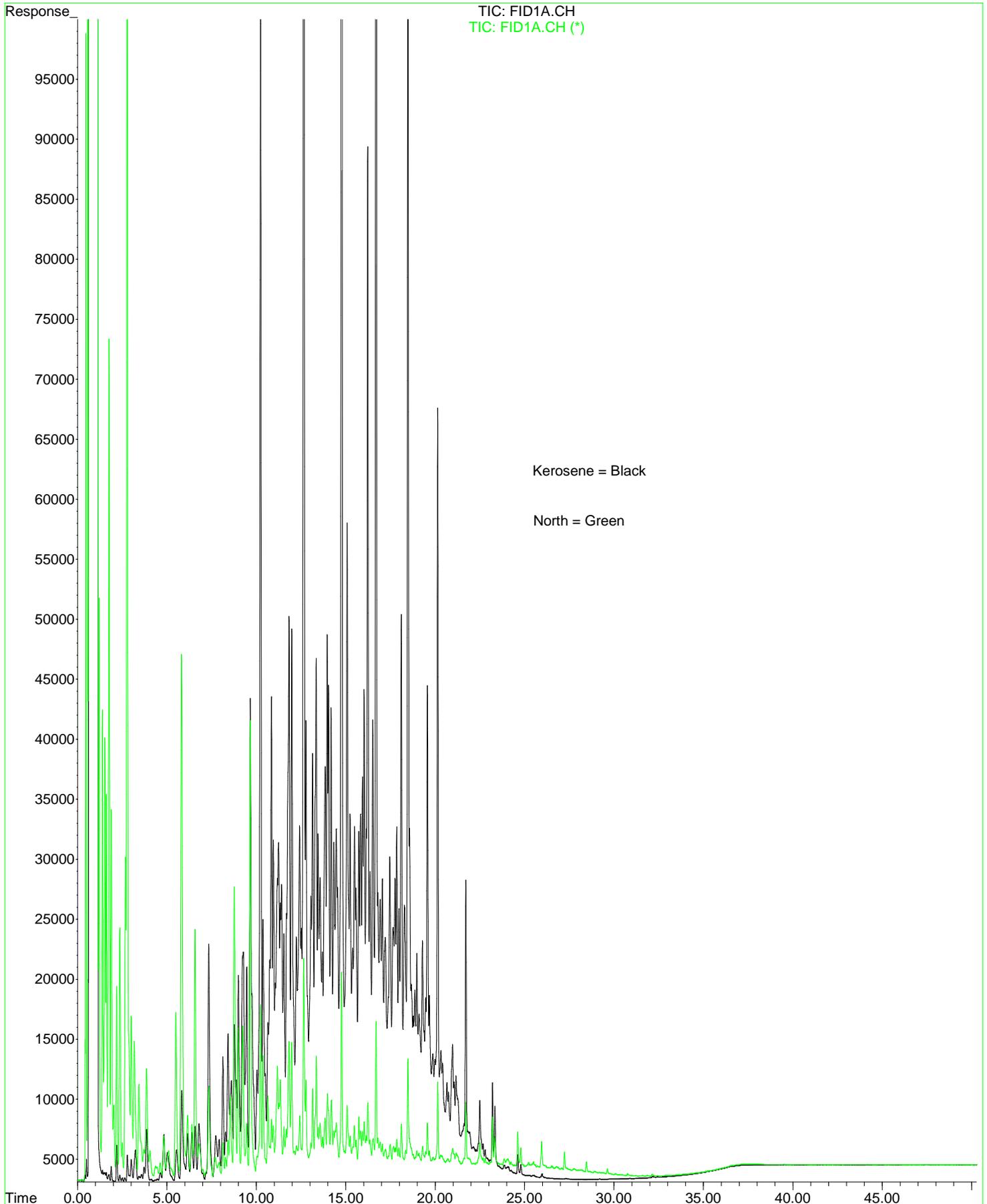
File : P:\DRO\1\DATA\180314\18031450.D  
Operator : AS  
Acquired : 15 Mar 2018 2:34 am using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Jet Fuel A  
Misc Info : ID #3204-2 Exp 3/14/19 AS  
Vial Number: 7



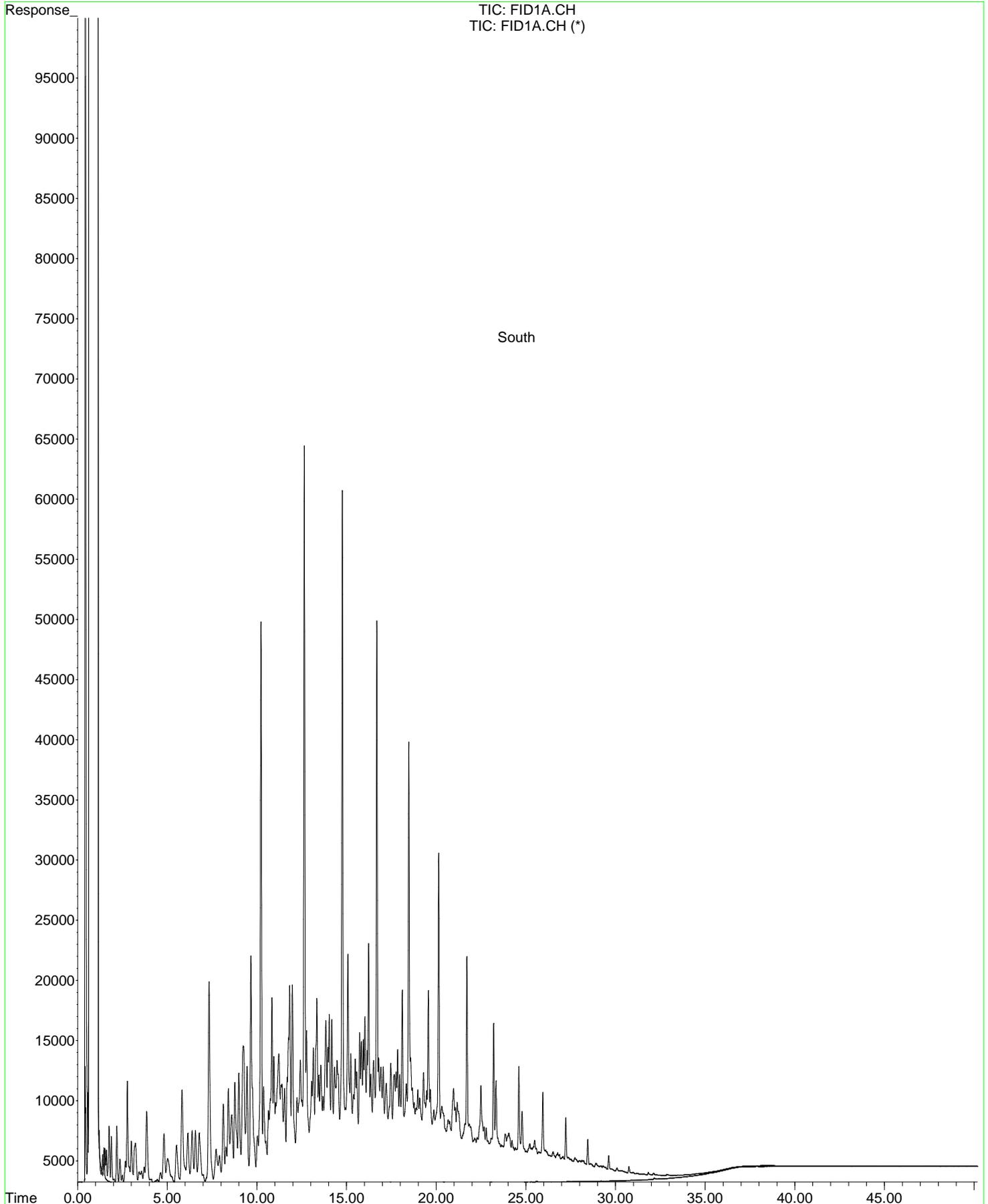
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Operator : AS  
Acquired : 14 Mar 2018 4:51 pm using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name : Unleaded Gasoline  
Misc Info : ID #3204-1 Exp 3/14/19 AS  
Vial Number: 11



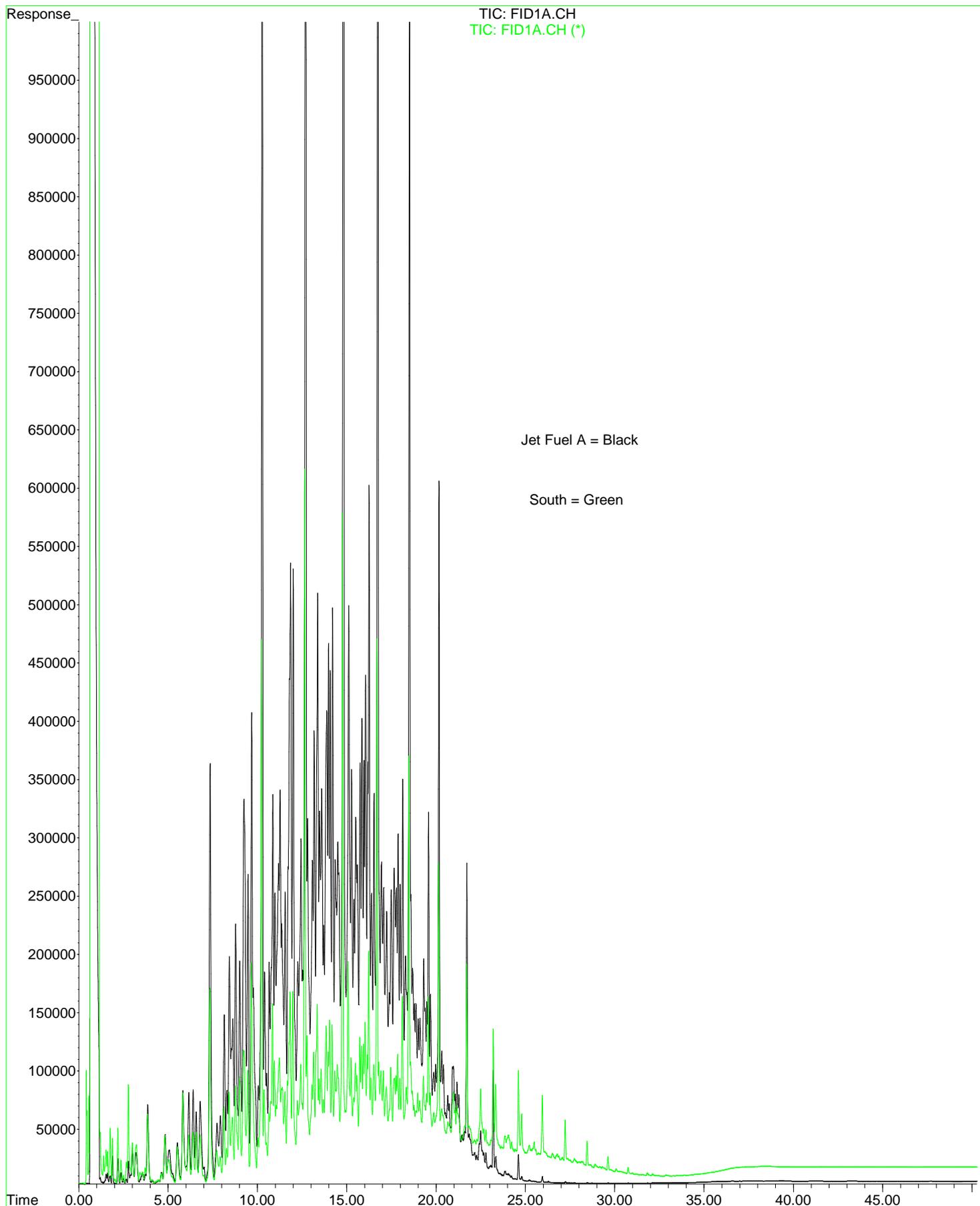
File : P:\DRO\1\DATA\180314\18031418.D  
Operator : AS  
Acquired : 14 Mar 2018 3:28 pm using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Kerosene (Unweathered)  
Misc Info : ID #3040-1 Exp 3/14/19 AS  
Vial Number: 4



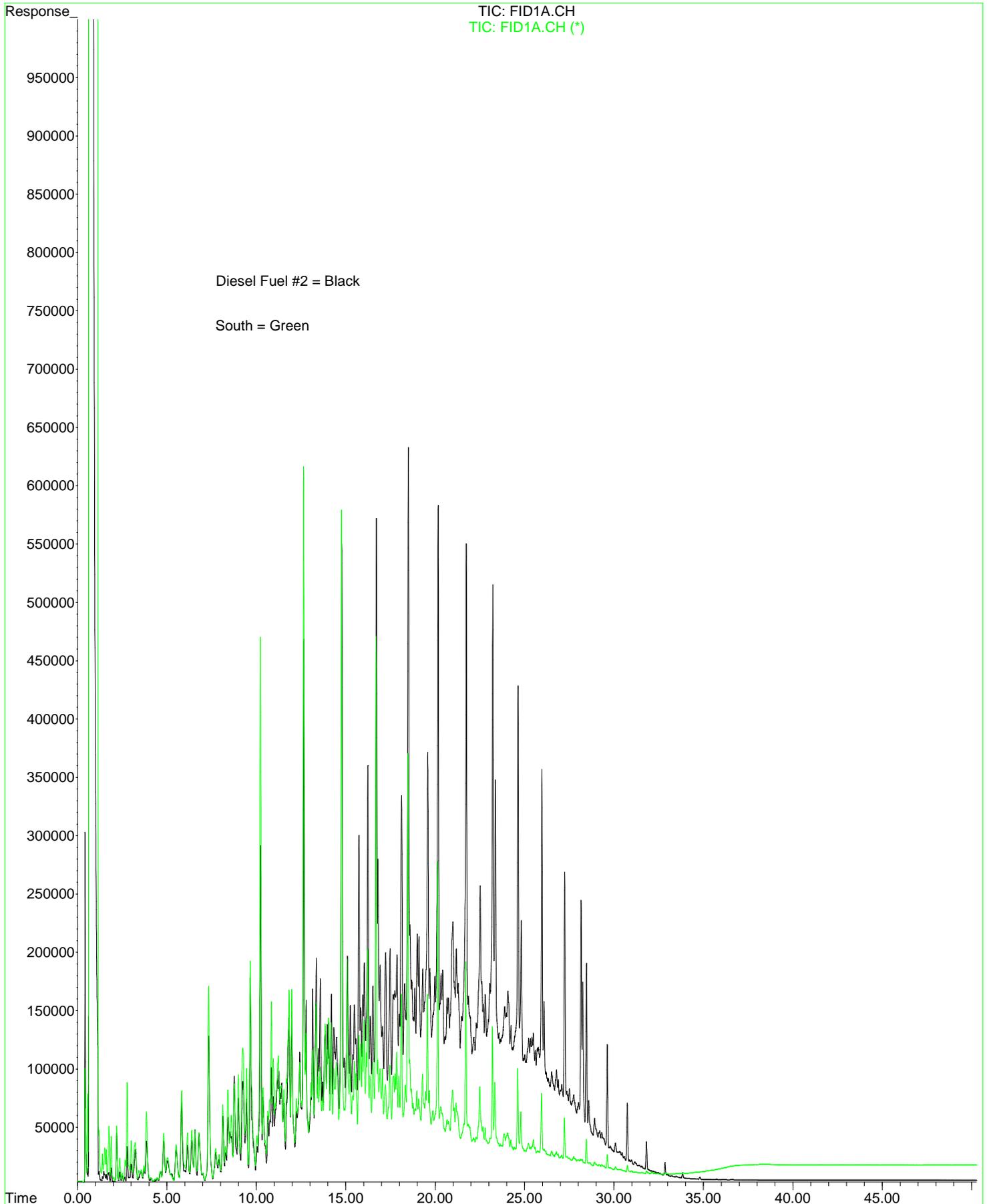
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Operator : AS  
Acquired : 14 Mar 2018 1:31 pm using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Instrument Blank  
Misc Info : Instrument Blank  
Vial Number: 98



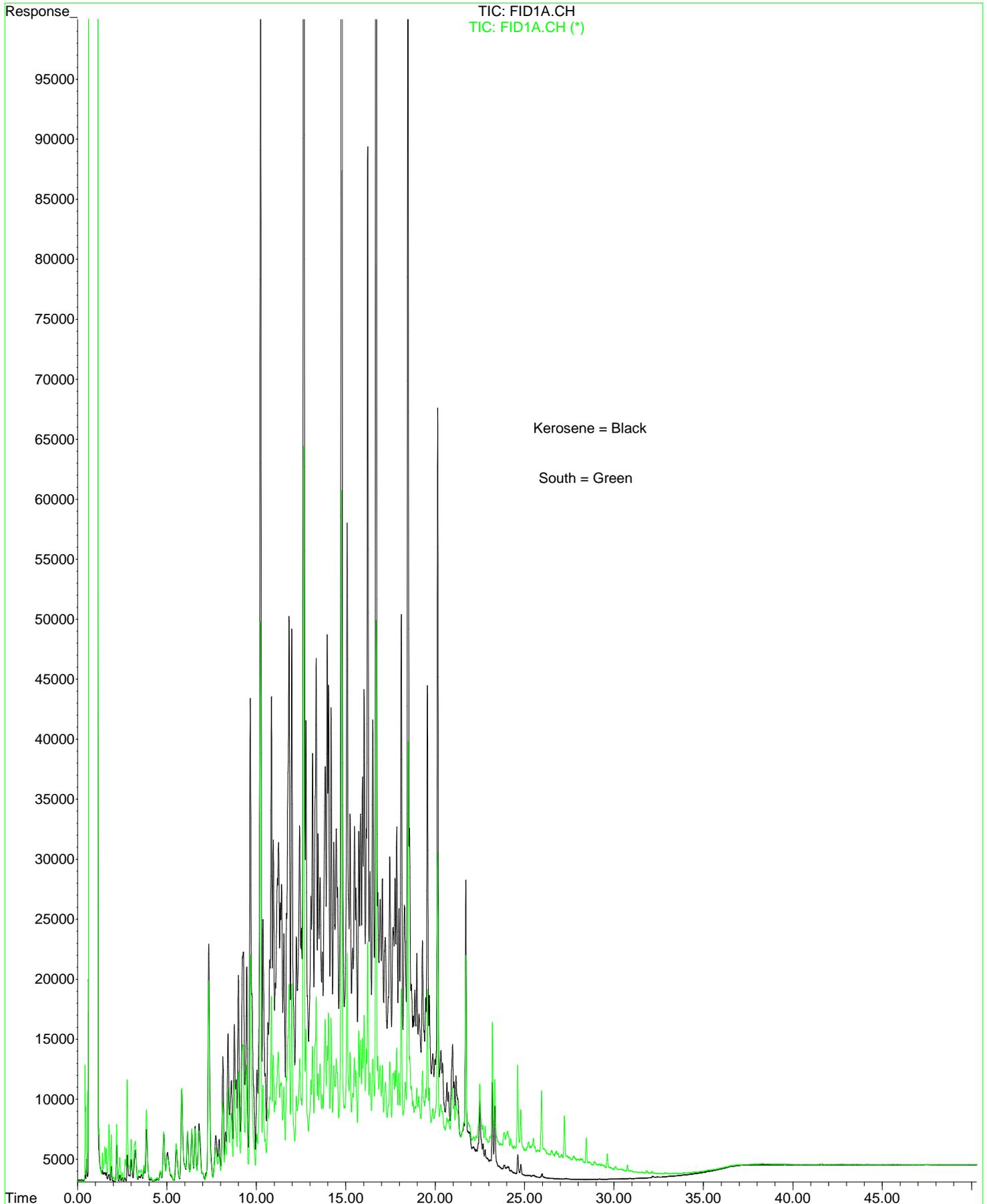
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Operator : AS  
Acquired : 15 Mar 2018 2:34 am using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Jet Fuel A  
Misc Info : ID #3204-2 Exp 3/14/19 AS  
Vial Number: 7



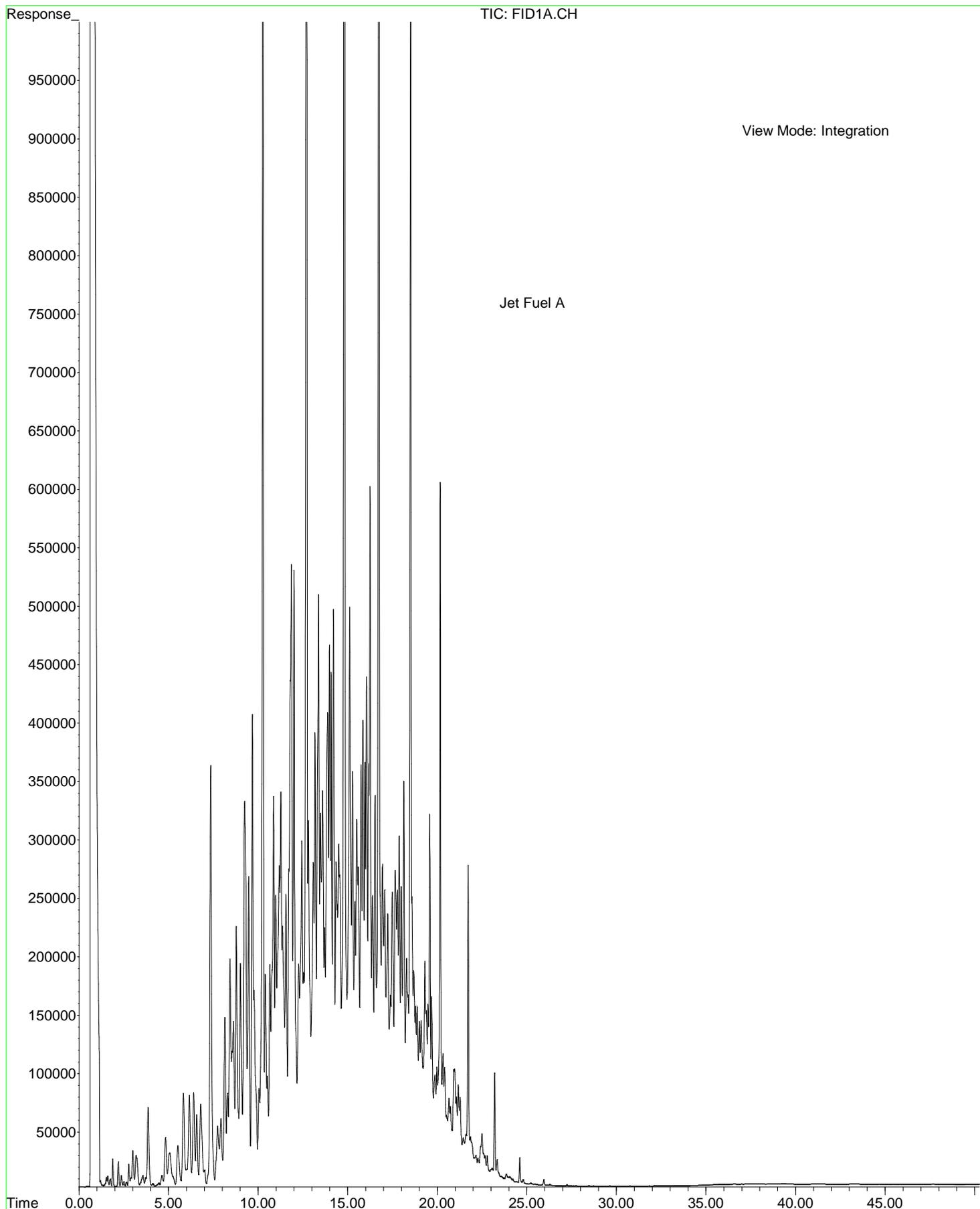
File : P:\DRO\1\DATA\180314\18031426.D  
Operator : AS  
Acquired : 14 Mar 2018 6:14 pm using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Diesel Fuel #2 Composite  
Misc Info : ID #2237-1 Exp 7/7/18 AS  
Vial Number: 13



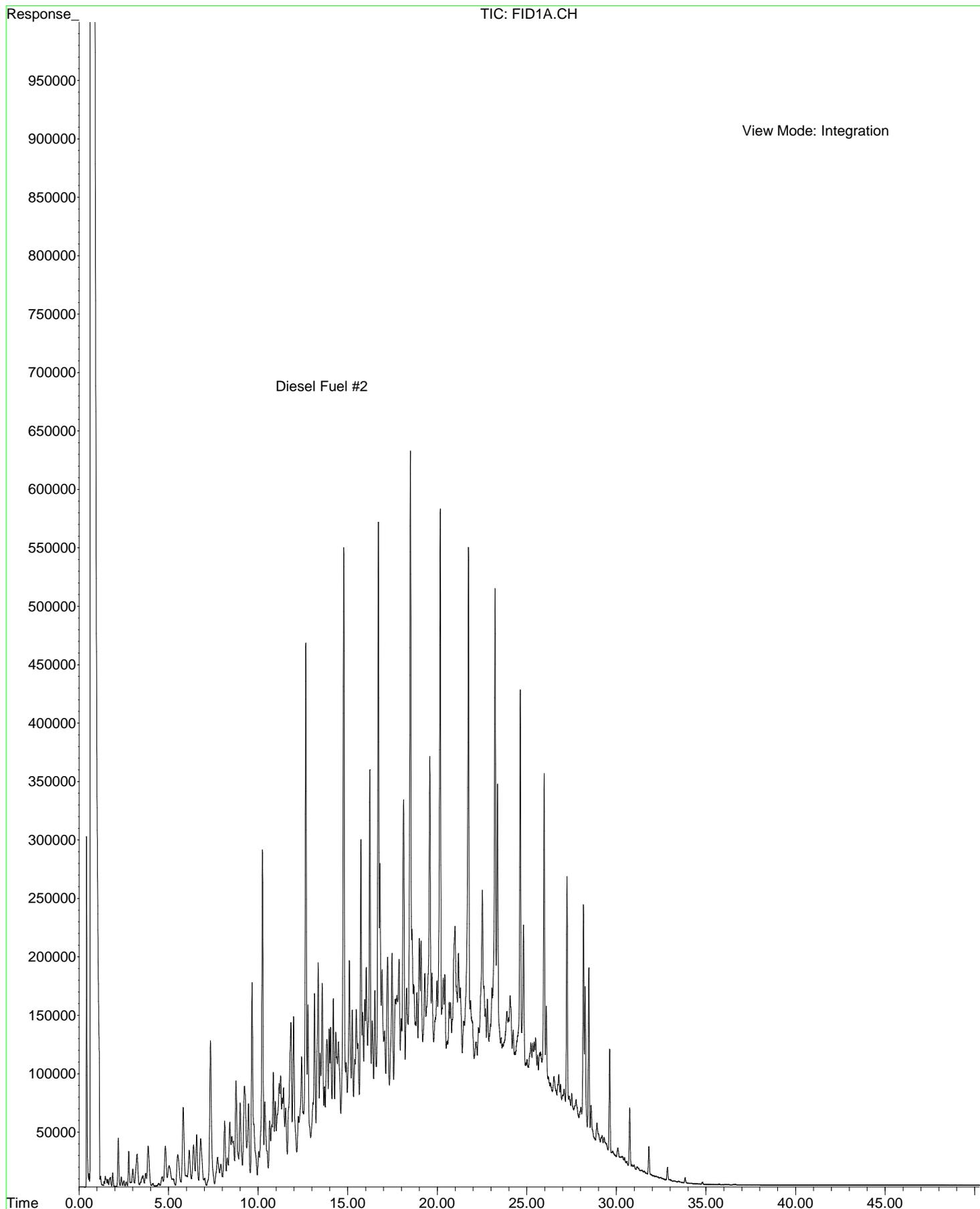
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Operator : AS  
Acquired : 14 Mar 2018 3:28 pm using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Kerosene (Unweathered)  
Misc Info : ID #3040-1 Exp 3/14/19 AS  
Vial Number: 4



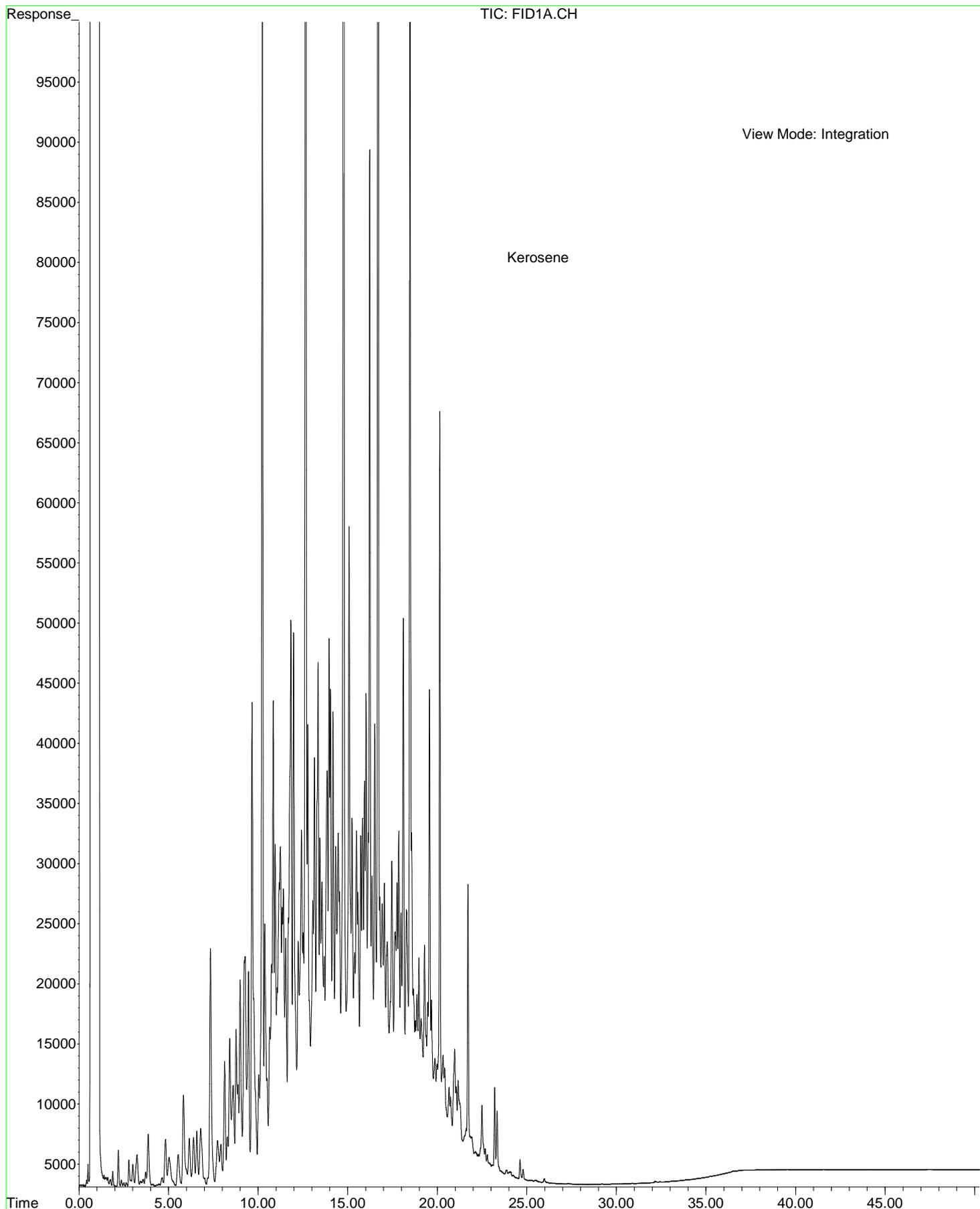
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Operator : AS  
Acquired : 15 Mar 2018 2:34 am using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Jet Fuel A  
Misc Info : ID #3204-2 Exp 3/14/19 AS  
Vial Number: 7



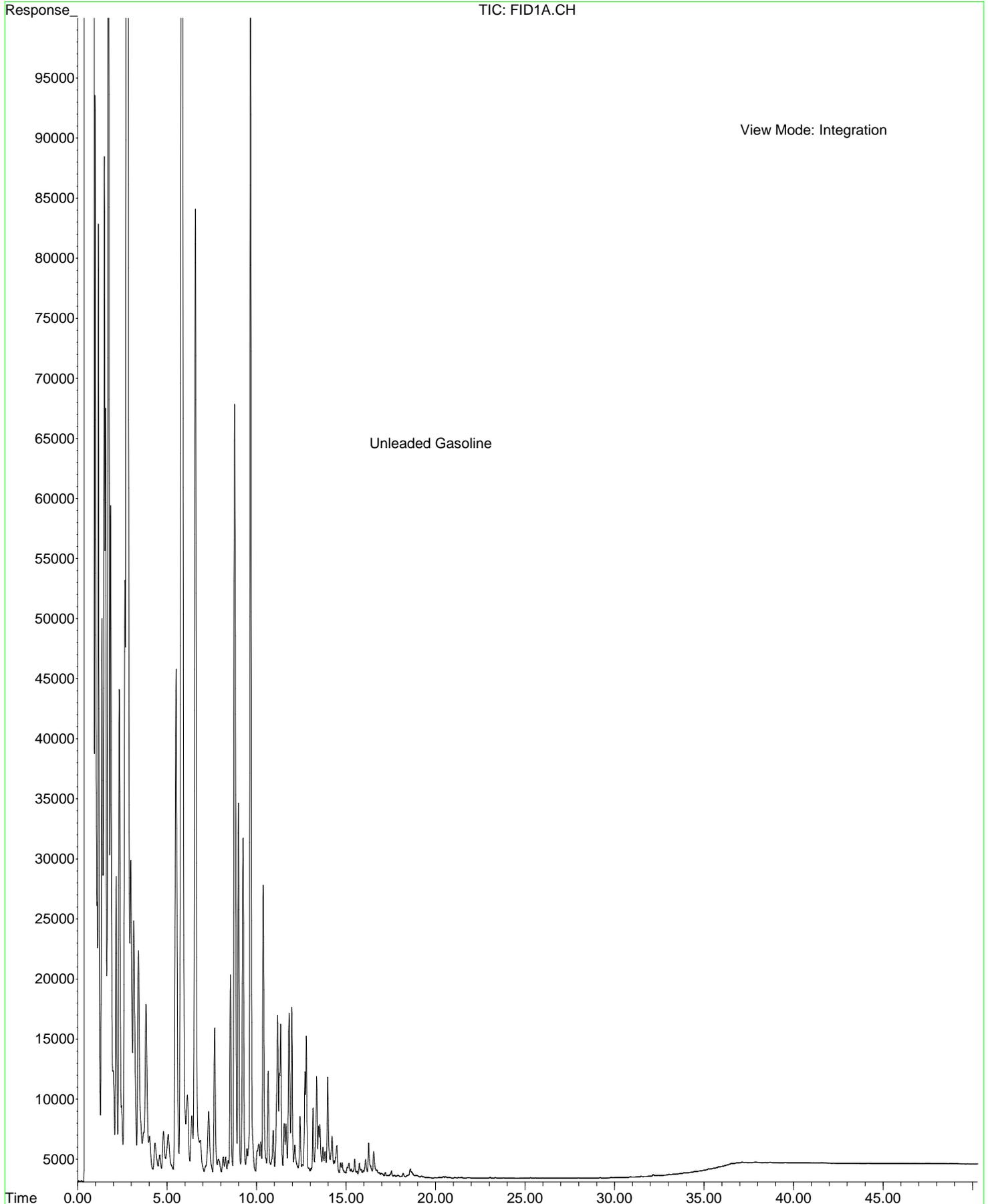
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Operator : AS  
Acquired : 14 Mar 2018 6:14 pm using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Diesel Fuel #2 Composite  
Misc Info : ID #2237-1 Exp 7/7/18 AS  
Vial Number: 13



File : P:\DRO\1\DATA\180314\18031418.D  
Operator : AS  
Acquired : 14 Mar 2018 3:28 pm using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Kerosene (Unweathered)  
Misc Info : ID #3040-1 Exp 3/14/19 AS  
Vial Number: 4



File : P:\DRO\1\DATA\180314\18031422.D  
Operator : AS  
Acquired : 14 Mar 2018 4:51 pm using AcqMethod PROD\_ID.M  
Instrument : DRO #1  
Sample Name: Unleaded Gasoline  
Misc Info : ID #3204-1 Exp 3/14/19 AS  
Vial Number: 11





# Case Narrative Summary

**Client Name: TRC (Philadelphia)**

**Project Name: Bel Air Event**

Work Order Number(s): 18031406

Project ID: 299980

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Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

### **Sample Receipt:**

All sample receipt conditions were acceptable.

### **Analytical:**

#### **Product Identification**

##### **Batch: 151373**

Sample fingerprints were obtained using a capillary gas chromatography technique (Modified EPA 8015) coupled with flame ionization detection. The resulting pattern for sample 18031406-001 most closely resembles that of unleaded gasoline. The resulting chromatogram also indicates a trace pattern resembling JP-4.

The resulting pattern for sample 18031406-002 most closely resembles that of kerosene.

**NELAP accreditation was held for all analyses performed unless noted below. See [www.phaseonline.com](http://www.phaseonline.com) for complete PSS scope of accreditation.**

SW-846 8015 C



## Analytical Data Package Information Summary

**Work Order(s): 18031406**

Report Prepared For: TRC (Philadelphia), Philadelphia, PA

Project Name: Bel Air Event

Project Manager: Brian Hecker

Method	Client Sample Id	Analysis Type	Lab Sample Id	Analyst	Mtx	Prep Batch	Analytical Batch	Sampled	Prepared	Analyzed
<b>SW-846 6020 A</b>	North	Initial	18031406-001	1051	O	70405	151394	03/13/2018	03/14/2018 17:29	03/15/2018 13:17
	South	Initial	18031406-002	1051	O	70405	151394	03/13/2018	03/14/2018 17:29	03/15/2018 13:28
<b>SW-846 8015 C</b>	North	Initial	18031406-001	1059	O	70400	151373	03/13/2018	03/14/2018 11:28	03/14/2018 12:33
	South	Initial	18031406-002	1059	O	70400	151373	03/13/2018	03/14/2018 11:28	03/14/2018 11:34
<b>SW-846 8021B</b>	North	Initial	18031406-001	1035	O	70422	151382	03/13/2018	03/15/2018 08:56	03/15/2018 12:11
	South	Initial	18031406-002	1035	O	70422	151382	03/13/2018	03/15/2018 08:56	03/15/2018 10:33
	70422-1-BKS	BKS	70422-1-BKS	1035	O	70422	151382	-----	03/15/2018 08:56	03/15/2018 13:16
	70422-1-BLK	BLK	70422-1-BLK	1035	O	70422	151382	-----	03/15/2018 08:56	03/15/2018 10:02
	12029-36-251.50 S	MS	18031514-001 S	1035	S	70422	151382	03/14/2018	03/15/2018 08:56	03/15/2018 20:26
	12029-36-251.50 SD	MSD	18031514-001 SD	1035	S	70422	151382	03/14/2018	03/15/2018 08:56	03/15/2018 20:57

# PHASE SEPARATION SCIENCE, INC.

## QC Summary 18031406

### TRC (Philadelphia) Bel Air Event

**Analytical Method: SW-846 8015 C**

Seq Number: 151373  
PSS Sample ID: 18031406-001

Prep Method: SW3550C  
Date Prep: 03/14/2018

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	4	*	50-150	%	03/14/18 12:33

**Analytical Method: SW-846 8021B**

Seq Number: 151382  
PSS Sample ID: 18031406-001

Prep Method: SW5030  
Date Prep: 03/15/2018

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene-BTEX	120		70-150	%	03/15/18 12:11

**Analytical Method: SW-846 8015 C**

Seq Number: 151373  
PSS Sample ID: 18031406-002

Prep Method: SW3550C  
Date Prep: 03/14/2018

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
o-Terphenyl	5	*	50-150	%	03/14/18 11:34

**Analytical Method: SW-846 8021B**

Seq Number: 151382  
PSS Sample ID: 18031406-002

Prep Method: SW5030  
Date Prep: 03/15/2018

Surrogate	%Rec	Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene-BTEX	140		70-150	%	03/15/18 10:33

F = RPD exceeded the laboratory control limits  
X = Recovery of MS, MSD or both outside of QC Criteria  
H = Recovery of BS,BSD or both exceeded the laboratory control limits  
L = Recovery of BS,BSD or both below the laboratory control limits

# PHASE SEPARATION SCIENCE, INC.

## QC Summary 18031406

TRC (Philadelphia)  
Bel Air Event

**Analytical Method: SW-846 8021B**

Seq Number: 151382

MB Sample Id: 70422-1-BLK

Matrix: Oil

LCS Sample Id: 70422-1-BKS

Prep Method: SW5030

Date Prep: 03/15/18

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Analysis Date	Flag
Benzene	<1.0	50	55	110	70-150	ug/kg	03/15/18 13:16	
Ethylbenzene	<1.0	50	58	116	70-150	ug/kg	03/15/18 13:16	
Methyl-t-Butyl Ether	<1.0	50	47	94	70-150	ug/kg	03/15/18 13:16	
Naphthalene	<1.0	50	54	108	70-150	ug/kg	03/15/18 13:16	
Toluene	<1.0	50	58	116	70-150	ug/kg	03/15/18 13:16	
m&p-Xylene	<2.0	100	120	120	70-150	ug/kg	03/15/18 13:16	
o-Xylene	<1.0	50	58	116	70-150	ug/kg	03/15/18 13:16	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	Analysis Date	
a,a,a-Trifluorotoluene-BTEX	120		110		70-150	%	03/15/18 13:16	

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits





# Phase Separation Science, Inc

## Sample Receipt Checklist

**Work Order #** 18031406 **Received By** Barb Weber  
**Client Name** TRC (Philadelphia) **Date Received** 03/14/2018 10:24:00 AM  
**Project Name** Bel Air Event **Delivered By** Trans Time Express  
**Project Number** 299980 **Tracking No** Not Applicable  
**Disposal Date** 04/18/2018 **Logged In By** Thomas Wingate

### Shipping Container(s)

No. of Coolers 1

Custody Seal(s) Intact? N/A

Seal(s) Signed / Dated? N/A

Ice Present

Temp (deg C) 1

Temp Blank Present No

### Documentation

COC agrees with sample labels? Yes

Chain of Custody Yes

Sampler Name J. Hankins

MD DW Cert. No. N/A

### Sample Container

Appropriate for Specified Analysis? Yes

Intact? Yes

Labeled and Labels Legible? Yes

Custody Seal(s) Intact? Not Applicable

Seal(s) Signed / Dated Not Applicable

Total No. of Samples Received 2

Total No. of Containers Received 2

### Preservation

Total Metals (pH<2) N/A

Dissolved Metals, filtered within 15 minutes of collection (pH<2) N/A

Orthophosphorus, filtered within 15 minutes of collection N/A

Cyanides (pH>12) N/A

Sulfide (pH>9) N/A

TOC, DOC (field filtered), COD, Phenols (pH<2) N/A

TOX, TKN, NH3, Total Phos (pH<2) N/A

VOC, BTEX (VOA Vials Rcvd Preserved) (pH<2) N/A

Do VOA vials have zero headspace? N/A

624 VOC (Rcvd at least one unpreserved VOA vial) N/A

524 VOC (Rcvd with trip blanks) (pH<2) N/A

### Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:

Thomas Wingate

Date: 03/14/2018

PM Review and Approval:

Amber Confer

Date: 03/14/2018

# Analytical Report for

**TRC - Philadelphia**

**Certificate of Analysis No.: 18051013**

**Project Manager: Brian Hecker**

**Project Name : Bel Air Event**

**Project Location: Fallston, MD**

**Project ID : 299980**



**May 17, 2018**

**Phase Separation Science, Inc.**

**6630 Baltimore National Pike**

**Baltimore, MD 21228**

**Phone: (410) 747-8770**

**Fax: (410) 788-8723**

OFFICES:  
6630 BALTIMORE NATIONAL PIKE  
ROUTE 40 WEST  
BALTIMORE, MD 21228  
410-747-8770  
800-932-9047  
FAX 410-788-8723

# PHASE SEPARATION SCIENCE, INC.



May 17, 2018

**Brian Hecker**  
**TRC - Philadelphia**  
1601 Market St., Ste. 2555  
Philadelphia, PA 19103

Reference: PSS Work Order(s) No: **18051013**  
Project Name: Bel Air Event  
Project Location: Fallston, MD  
Project ID.: 299980

Dear Brian Hecker :

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Work Order(s) numbered **18051013**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on April 18, 2018, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or [info@phaseonline.com](mailto:info@phaseonline.com).

Sincerely,

**Dan Prucnal**

Laboratory Manager



# Sample Summary

**Client Name: TRC - Philadelphia**  
**Project Name: Bel Air Event**

**Work Order Number(s): 18051013**

**Project ID: 299980**

The following samples were received under chain of custody by Phase Separation Science (PSS) on 03/14/2018 at 10:24 am

Lab Sample Id	Sample Id	Matrix	Date/Time Collected
18051013-001	South	OIL	03/13/18 14:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

**Notes:**

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

**Standard Flags/Abbreviations:**

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

**Certifications:**

NELAP Certifications: PA 68-03330, VA 460156  
State Certifications: MD 179, WV 303  
Regulated Soil Permit: P330-12-00268  
NSWC USCG Accepted Laboratory  
LDBE MWAA LD1997-0041-2015



Certificate of Analysis

**Vessel / Object:** Submitted Samples  
**Location:** Baltimore, MD / Phase Separation Science, Inc. (United States)  
**Job Type:** Submitted Sample  
**Product Grade:** Distillate / Diesel Oil  
**Client Reference:** WO#18051013

**Job No:** 195-18-00238  
**Date Sampled:** 03/13/18  
**Date Tested:** 05/11/18  
**Version:** 1 / 11 May 2018 11:55

---

<b><u>Sample</u></b>	<b><u>Sample ID, Type &amp; Description</u></b>
195-18-00238-001	18051013-001 Submitted

<b><u>Method</u></b>	<b><u>Test</u></b>	<b><u>Result</u></b>	<b><u>Units</u></b>
ASTM D7039	Sulfur	915	ppmw



## Case Narrative Summary

Client Name: TRC - Philadelphia

Project Name: Bel Air Event

Work Order Number(s): 18051013

Project ID: 299980

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Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

The analyses of chlorine, pH, dissolved oxygen, temperature and sulfite for drinking water and non-potable samples tested for compliance have a maximum holding time of 15 minutes. As such, all laboratory analyses for these analytes exceed holding times.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Unless otherwise noted, surrogate recoveries outside of the acceptance criteria are most often the result of sample matrix interference and/or sample dilution.

Quality control samples that display a high bias will not be narrated when sample target compounds are not detected.

### Sample Receipt:

All sample receipt conditions were acceptable.

18051013: Analyses associated with analyst code 4049 were performed by AmSpec Services, LLC

**NELAP accreditation was held for all analyses performed unless noted below. See [www.phaseonline.com](http://www.phaseonline.com) for complete PSS scope of accreditation.**

ASTM D7039





# Phase Separation Science, Inc

## Sample Receipt Checklist

**Work Order #** 18051013 **Received By** Barb Weber  
**Client Name** TRC - Philadelphia **Date Received** 03/14/2018 10:24:00 AM  
**Project Name** Bel Air Event **Delivered By** Trans Time Express  
**Project Number** 299980 **Tracking No** Not Applicable  
**Disposal Date** 04/18/2018 **Logged In By** Thomas Wingate  
**Shipping Container(s)**  
No. of Coolers 1

Ice Present  
Custody Seal(s) Intact? N/A Temp (deg C) 1  
Seal(s) Signed / Dated? N/A Temp Blank Present No

### Documentation

COC agrees with sample labels? Yes Sampler Name J. Hankins  
Chain of Custody Yes MD DW Cert. No. N/A

### Sample Container

Appropriate for Specified Analysis? Yes Custody Seal(s) Intact? Not Applicable  
Intact? Yes Seal(s) Signed / Dated Not Applicable  
Labeled and Labels Legible? Yes

Total No. of Samples Received 1

Total No. of Containers Received 1

### Preservation

Total Metals (pH<2) N/A  
Dissolved Metals, filtered within 15 minutes of collection (pH<2) N/A  
Orthophosphorus, filtered within 15 minutes of collection N/A  
Cyanides (pH>12) N/A  
Sulfide (pH>9) N/A  
TOC, DOC (field filtered), COD, Phenols (pH<2) N/A  
TOX, TKN, NH3, Total Phos (pH<2) N/A  
VOC, BTEX (VOA Vials Rcvd Preserved) (pH<2) N/A  
Do VOA vials have zero headspace? N/A  
624 VOC (Rcvd at least one unpreserved VOA vial) N/A  
524 VOC (Rcvd with trip blanks) (pH<2) N/A

### Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:

Thomas Wingate

Date: 05/10/2018

PM Review and Approval:

Amber Confer

Date: 05/10/2018

**APPENDIX E**  
Soil Boring and Monitoring Well Logs



# SOIL BORING LOG

**BORING NO. HA-1**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/8/18</b>	Date Drilling Completed: <b>3/8/18</b>	Project Number: <b>299980</b>
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>477.8</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>10.0</b>
Boring Location: <b>Outside Loop, East/Access Road</b>		Personnel Logged By - <b>David Kudla/Brian Hecker</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>
Civil Town/City/or Village: <b>Fallston</b>	County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time	
				Depth (ft bgs) Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	P/D (PPM)	COMMENTS
				2	(0-5) access well			0	
				4				0	
				6	(5-10) brown sandy clay, moisture at 9-ft, no odors	CL		0	
				8				0	
				10	EOB			0	Temporary well installed to 10', with 5' of screen. Dry.
				12					
				14					
				16					
				18					

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

Signature:	Firm: <b>TRC Environmental Corporation</b> 1601 Market St., Suite 2555 Philadelphia, PA 19103	Phone 215.563.2122 Fax 215.563.2339
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# SOIL BORING LOG

**BORING NO. HA-2**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/8/18</b>	Date Drilling Completed: <b>3/8/18</b>	Project Number: <b>299980</b>
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>477.0</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>7.5</b>
Boring Location: <b>Inside Loop, West Corner</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time
				Depth (ft bgs) Depth (ft bgs)

SAMPLE	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	P/D (PPM)	COMMENTS
NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET		
	(0-0.75) gravel cover				
	(0.75-2) brown clayey sand, perched water	SC		0	Temporary well installed to 7.5', with 5' of screen. Water at approximately 5'.
	(2-2.5) brown silty clay, wet	CL-ML	2	0	
	(2.5-5.5) brown fine sand and clay, moist			0	
		SC	4	0	
				0	
	(5.5-7.5) dark brown fine sand and clay, wet at 7'	SC	6	0	
	EOB		8	0	
			10		
			12		
			14		
			16		
			18		

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. HA-3**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/8/18</b>	Date Drilling Completed: <b>3/8/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>477.0</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>9.0</b>	Borehole Dia. (in) <b>3.0</b>
Boring Location: <b>Inside Loop, North East</b>		Personnel Logged By - <b>Brian Hecker</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>	
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time	
				Depth (ft bgs)	Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.5) gravel cover				
				2	(0.5-3) brown fine sand and silt w/gravel	SM		0	
				4	(3-5) brown fine sand, odor	SP		870	
				6	(5-6) brown fine sand, some clay	SM		812	Temporary well installed to 9', with 5' of screen. Product at approximately 6', no water following initial observation.
				8	(6-8) brown fine sand, some clay w/quartz	SM		916	
				8	(8-8.5) brown silty clay	CL-ML		1000+	
				8	(8.5-9) light brown clay, wet	CL		1000+	
				8	EOB			1000+	
				10					
				12					
				14					
				16					
				18					

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. HA-4**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/8/18</b>	Date Drilling Completed: <b>3/8/18</b>	Project Number: <b>299980</b>
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>477.0</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>9.5</b>
Boring Location: <b>Inside Loop, North Corner</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time
				Depth (ft bgs) Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	P/D (PPM)	COMMENTS
				0-0.75	(0-0.75) gravel cover				
				0.75-2	(0.75-2) brown fine sand, some clay and rock, odor	SM		0	
				2-7.5	(2-7.5) brown clayey sand, moist at 4', heavy odor			451	
				4		SC		594	
				6				395	
				7.5-9.5	(7.5-9.5) brown sandy clay, occasional rock (quartz), heavy odor	CL		1000+	
				10	EOB			1000+	
				12				1000+	
				14				1000+	
				16				1000+	
				18				1000+	

Temporary well installed to 9.5', with 5" of screen. Product at approximately 7.5', no water following initial observation.

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

Signature:	Firm: TRC Environmental Corporation 1601 Market St., Suite 2555 Philadelphia, PA 19103	Phone 215.563.2122 Fax 215.563.2339
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# SOIL BORING LOG

**BORING NO. HA-5**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/8/18</b>	Date Drilling Completed: <b>3/8/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>477.3</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>6.5</b>	Borehole Dia. (in) <b>3.0</b>
Boring Location: <b>Outside Loop, West</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>	
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time	
				Depth (ft bgs)	Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.5) gravel cover		(0-0.5)		
				2	(0.5-2.5) brown fine sand, some clay	SM	(0.5-2.5)		
				4	(2.5-6) brown clayey sand with silt	SC	(2.5-6)		
				6	(6-6.5) brown sandy clay and saprolite	CL	(6-6.5)		
				6.5	EOB REFUSAL				

Temporary well installed to 6.5', with 5' of screen. Water at approximately 6.25'.

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. HA-6**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/8/18</b>	Date Drilling Completed: <b>3/9/18</b>	Project Number: <b>299980</b>
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>477.0</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>10.0</b>
Boring Location: <b>Inside Loop, East</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time
				Depth (ft bgs) Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.75) gravel cover				
				2	(0.75-6.25) brown clayey fine sand			0	Temporary well installed to 10', with 5' of screen. Water at approximately 7'.
				4		SC		0	
				6	(6.25-7) gray/green clayey sand	SC		0	
				8	(7-8.5) red brown sandy clay	CL		0	
				10	(8.5-9.5) gray silty clay	CL-ML		0	
				10	(9.5-10) brown clay	CL		0	
				10	EOB			0	
				12					
				14					
				16					
				18					

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. HA-7**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/8/18</b>	Date Drilling Completed: <b>3/9/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>476.8</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>3.0</b>	Borehole Dia. (in) <b>3.0</b>
Boring Location: <b>Outside Loop, South East</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>	
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time	
				Depth (ft bgs)	Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-1) red brown sandy clay and gravel	CL		0	
				2	(1-3) red brown sandy clay, interbedded white and red clay, rock from fill	CL		0	
				4	EOB REFUSAL			0	
				6					
				8					
				10					
				12					
				14					
				16					
				18					

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

Signature:	Firm: TRC Environmental Corporation 1601 Market St., Suite 2555 Philadelphia, PA 19103	Phone 215.563.2122 Fax 215.563.2339
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# SOIL BORING LOG

**BORING NO. HA-8**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/9/18</b>	Date Drilling Completed: <b>3/9/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>476.6</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>9.0</b>	Borehole Dia. (in) <b>3.0</b>
Boring Location: <b>Outside Loop, North Corner</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>	
N: 691415.1 E: 1459251.2					
Civil Town/City/or Village: <b>Fallston</b>	County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time		Depth (ft bgs) Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.5) gravel cover				
				0.5	(0.5-1.5) brown fine sand w/silt and clay	SM		0	
				2	(1.5-9) brown sandy clay			0	
				4				0	
				6		CL		0	
				8				0	
				10	EOB			0	
				12				0	
				14				0	
				16				0	
				18				0	

Temporary well installed to 9', with 5' of screen. Dry.

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. HA-9**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/8/18</b>	Date Drilling Completed: <b>3/9/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>476.4</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>10.0</b>	Borehole Dia. (in) <b>3.0</b>
Boring Location: <b>Outside Loop, North Corner</b>		Personnel Logged By - <b>Brian Hecker</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>	
N: 691418.8 E: 1459279.6					
Civil Town/City/or Village: <b>Fallston</b>	County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time		Depth (ft bgs) Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.5) gravel cover				
				0.5	(0.5-4.5) brown clayey sand			0	
				2		SC		0	
				4				0	
				4.5	(4.5-5) brown clayey sand w/gravel	SC		0	
				5	(5-10) brown clayey sand			0	Temporary well installed to 10', with 5' of screen. Dry.
				6				0	
				8		SC		0	
				10	EOB			0	
				12				0	
				14				0	
				16				0	
				18				0	

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. HA-10**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/9/18</b>	Date Drilling Completed: <b>3/9/18</b>	Project Number: <b>299980</b>
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>476.2</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>7.3</b>
Boring Location: <b>Inside Loop, Center</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time
				Depth (ft bgs) Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.5) gravel cover		0		
				2	(0.5-6) brown clayey sand	SC	0		Temporary well installed to 7.3', with 5' of screen. Water at approximately 4'.
				4		SC	0		
				6	(6-7.25) red brown fine sand and clay	SC	0		
				8	EOB REFUSAL		0		
				10			0		
				12			0		
				14			0		
				16			0		
				18			0		

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

Signature:	Firm: <b>TRC Environmental Corporation</b> 1601 Market St., Suite 2555 Philadelphia, PA 19103	Phone 215.563.2122 Fax 215.563.2339
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# SOIL BORING LOG

**BORING NO. HA-11**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/8/18</b>	Date Drilling Completed: <b>3/9/18</b>	Project Number: <b>299980</b>
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>477.0</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>10.0</b>
Boring Location: <b>Inside Loop, North Corner</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time
				Depth (ft bgs) Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.5) gravel cover				
				2	(0.5-9) red brown sandy clay	CL		0	Temporary well installed to 10', with 5' of screen. Water at approximately 9'.
				4				0	
				6				0	
				8				14	
				10				42	
				12				28	
				14				12	
				16				10	
				18				0	
				20	(9-10) brown silty clay	CL-ML		0	
				22	EOB			0	

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

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# SOIL BORING LOG

**BORING NO. HA-12**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/10/18</b>	Date Drilling Completed: <b>3/10/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>477.5</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>9.3</b>	Borehole Dia. (in) <b>3.0</b>
Boring Location: <b>Outside Loop, East/Building Entrance</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>	
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time	
				Depth (ft bgs)	Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	P/D (PPM)	COMMENTS
				0	(0-0.5) gravel cover				
				0.5	(0.5-9.25) brown sandy clay				
				2				0	
				4				0	
				6		CL		0	
				8				0	
				10	EOB REFUSAL			0	
				12				0	
				14				0	
				16				0	
				18				0	
									Temporary well installed to 9.3', with 5' of screen. Dry.

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

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# SOIL BORING LOG

**BORING NO. HA-13**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/10/18</b>	Date Drilling Completed: <b>3/10/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>477.0</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>7.0</b>	Borehole Dia. (in) <b>3.0</b>
Boring Location: <b>Outside Loop, East/Loop Entrance</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>	
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time	
N: 691269.6 E: 1459356.8				Depth (ft bgs)	Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.5) gravel cover				
				0.5	(0.5-2) brown sand some clay, rock	SC		0	
				2	(2-7) brown sandy clay	CL		0	
				4				0	
				6				0	
				8				0	
				10				0	
				12				0	
				14				0	
				16				0	
				18				0	
				EOB REFUSAL				0	

Temporary well installed to 7', with 5' of screen. Dry.

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

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# SOIL BORING LOG

**BORING NO. HA-15**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/13/18</b>	Date Drilling Completed: <b>3/13/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>476.7</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>5.8</b>	Borehole Dia. (in) <b>3.0</b>
Boring Location: <b>Inside Loop, North Center</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>	
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time	
				Depth (ft bgs)	Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
					(0-0.5) gravel cover				
					(0.5-1) brown clayey sand	SC			
				2	(1-4) brown/gray fine sandy clay, organics, wood	CL		0	
				4	(4-5) brown clayey silt	ML		0	
				6	(5-5.75) brown/gray dense clay and silt	CL-ML		0	
				6	EOB REFUSAL			0	
				8					
				10					
				12					
				14					
				16					
				18					

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

Signature:	Firm: TRC Environmental Corporation 1601 Market St., Suite 2555 Philadelphia, PA 19103	Phone 215.563.2122 Fax 215.563.2339
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# SOIL BORING LOG

**BORING NO. HA-16**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/13/18</b>	Date Drilling Completed: <b>3/13/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>476.8</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>10.0</b>	Borehole Dia. (in) <b>3.0</b>
Boring Location: <b>Inside Loop, North Center</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>	
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time	
				Depth (ft bgs)	Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	P/D (PPM)	COMMENTS
				0	(0-0.5) gravel cover				
				0.5	(0.5-1) brown clayey sand	SC		0	
				1	(1-3.75) white clay			0	
				2		CH		0	
				3				0	
				4	(3.75-4.5) white/brown sandy clay and gravel	CL		0	
				4.5	(4.5-6) white clay			0	
				5		CH		0	
				6	(6-6.5) black coarse sand	SP		0	
				6.5	(6.5-9.5) brown/gray fine sand, some clay, moisture at 9'			3.5	
				8		SM		64	
				10				118	
				12.4				12.4	
				15	(9.5-10) brown sandy clay	CL		1.5	
				18	EOB			1.2	

Temporary well installed to 10', with 5' of screen. Water at approximately 8.75'.

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. HA-17**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/15/18</b>	Date Drilling Completed: <b>3/15/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>TRC</b>	Drilling Method: <b>Hand Auger</b>	Surface Elev. (ft) <b>476.9</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>7.0</b>	Borehole Dia. (in) <b>3.0</b>
Boring Location: <b>Inside Loop, East Corner</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>TRC</b>		Drilling Equipment: <b>Hand Auger</b>	
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time	
				Depth (ft bgs)	Depth (ft bgs)

SAMPLE	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	COMMENTS
NUMBER AND TYPE				
RECOVERY (%)				
BLOW COUNTS				
DEPTH IN FEET				
	(0-0.5) gravel cover			
	(0.5-3.5) brown clayey sand	SC		
	(3.5-7) gray/green clayey sand	SC		Temporary well installed to 7', with 5' of screen. Water at approximately 6'.
	EOB			

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. GP-1**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/14/18</b>	Date Drilling Completed: <b>3/14/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>Odyssey</b>	Drilling Method: <b>Geoprobe</b>	Surface Elev. (ft) <b>476.8</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>10.0</b>	Borehole Dia. (in) <b>2.25</b>
Boring Location: <b>Inside Loop, North Corner</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>Jason Miller</b>		Drilling Equipment: <b>Geoprobe</b>	
N: 691392.3 E: 1459258.9					
Civil Town/City/or Village: <b>Fallston</b>	County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time		Depth (ft bgs) Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.5) gravel cover		0		
				2	(0.5-9) brown clayey sand, moisture at 8.5'		0		
				4		SC	0		
				6			0		
				8			0		
				10	(9-10) brown sandy clay	CL	0		Soil sampled (8-8.5).
				12	EOB		0		
				14			0		
				16			0		
				18			0		

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. GP-2**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/14/18</b>	Date Drilling Completed: <b>3/14/18</b>	Project Number: <b>299980</b>
Drilling Firm: <b>Odyssey</b>	Drilling Method: <b>Geoprobe</b>	Surface Elev. (ft) <b>477.4</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>7.5</b>
Boring Location: <b>Outside Loop, North Corner</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>Jason Miller</b>		Drilling Equipment: <b>Geoprobe</b>
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time
N: 691404.7 E: 1459221.8		Depth (ft bgs)		Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-2.5) brown clayey sand	SC		0	
				2		SC		0	
				2.5	(2.5-3) red/brown clayey sand	SC		0	
				3	(3-7) light brown clayey sand	SC		0	
				4		SC		0	
				6		SC		0	
				7.5	(7-7.5) light brown fine sand	SP		0	Soil sampled (7-7.5).
				8	EOB REFUSAL				Temporary well installed to 7.5', with 5' of screen. Dry.
				10					
				12					
				14					
				16					
				18					

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. GP-3**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/14/18</b>	Date Drilling Completed: <b>3/14/18</b>	Project Number: <b>299980</b>
Drilling Firm: <b>Odyssey</b>	Drilling Method: <b>Geoprobe</b>	Surface Elev. (ft) <b>476.8</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>16.0</b>
Boring Location: <b>Outside Loop, North Corner</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>Jason Miller</b>		Drilling Equipment: <b>Geoprobe</b>
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time
N: 691424.9 E: 1459251.5		Depth (ft bgs) Depth (ft bgs)		

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.5) gravel cover				
				2	(0.5-7) light brown clayey sand	SC		0	
				4					
				6					
				8	(7-12.25) light brown clay and sand	SC		0	
				10					
				12	(12.25-14) brown fine sand, water @ 12.5	SP		0	Soil sampled (12-12.5).
				14	(14-16) fine sandy saprolite, visible bedding planes	SP		0	
				16	EOB			0	
				18					

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# WELL CONSTRUCTION LOG

**WELL NO. GP-4/MW-4**

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/14/18</b>	Date Drilling Completed: <b>3/16/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>Odyssey</b>	Drilling Method: <b>Geoprobe/HSA</b>	Surface Elev. (ft) <b>477.5</b>	TOC Elevation (ft) <b>477.15</b>	Total Depth (ft bgs) <b>20.0</b>	Borehole Dia. (in) <b>6.25</b>
Boring Location: Downgradient/Building Entrance N: 691352.4 E: 1459364.0		Personnel Logged By - David Kudla Driller - Jason Miller		Drilling Equipment: <b>Geoprobe</b>	
Civil Town/City/or Village: <b>Fallston</b>	County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling: Date/Time <u>3/16/18 00:00</u> ▾ Depth (ft bgs) <u>17</u> After Drilling: Date/Time <u>4/4/18 00:00</u> ▾ Depth (ft bgs) <u>15.91</u>		

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	PID (PPM)	COMMENTS
				0	(0-0.5) asphalt and fill		//	█		
				0.5	(0.5-1) brown clay and sand	CL	//	█	0	
				2	(1-6) brown clayey sand, black gravel lens at 4.8, quartz lens at 5		//	█	0	
				4		SC	//	█	0	
				6	(6-9) red/brown clay, some sand	CL	//	█	0	
				9	(9-12) brown clayey sand	SC	//	█	0	Soil sampled (8.5-9).
				12	(12-13.5) brown clay, some sand, black gravel lens at 13.5	CL	//	█	0	
				13.5	(13.5-14) brown sand and silt	SM	//	█	0	
				14	(14-14.5) green fine sand, wood pieces	SP	//	█	0	Soil sampled (14-14.5).
				14.5	(14.5-16) fine sand, saprolite	SP	//	█	0	
				16	(16-17.5) light brown fine sand, water at 16.5	SP	//	█	0	Soil sampled (16.5-17).
				17.5	(17.5-20) fine sand, saprolite	SP	//	█	0	
				20	EOB		//	█	0	

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

Signature:	Firm: TRC Environmental Corporation 1601 Market St., Suite 2555 Philadelphia, PA 19103	Phone 215.563.2122 Fax 215.563.2339
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# WELL CONSTRUCTION LOG

**WELL NO. GP-5/MW-1**

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/14/18</b>	Date Drilling Completed: <b>3/15/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>Odyssey</b>	Drilling Method: <b>Geoprobe/HSA</b>	Surface Elev. (ft) <b>477.5</b>	TOC Elevation (ft) <b>480.73</b>	Total Depth (ft bgs) <b>16.0</b>	Borehole Dia. (in) <b>6.25</b>
Boring Location: Upgradient N: 691335.5 E: 1459157.3		Personnel Logged By - David Kudla Driller - Jason Miller		Drilling Equipment: <b>Geoprobe</b>	
Civil Town/City/or Village: <b>Fallston</b>	County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling: Date/Time <u>3/15/18 00:00</u> ▾ Depth (ft bgs) <u>5.6</u> After Drilling: Date/Time <u>4/4/18 00:00</u> ▾ Depth (ft bgs) <u>5.09</u>		

SAMPLE	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	P/D (PPM)	COMMENTS
NUMBER AND TYPE	DEPTH IN FEET					
	(0-7) brown sandy clay, wet at 6.5'	CL	[Hatched Pattern]	[Well Diagram]	0	
	(7-8.5) fine sand, saprolite	SP	[Dotted Pattern]	[Well Diagram]	0	
	(8.5-10) brown fine sand	SP	[Dotted Pattern]	[Well Diagram]	0	Soil sampled (8.5-9)
	(10-16) fine sand, saprolite	SP	[Dotted Pattern]	[Well Diagram]	0	
	EOB				0	

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# SOIL BORING LOG

**BORING NO. GP-6**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/14/18</b>	Date Drilling Completed: <b>3/14/18</b>	Project Number: <b>299980</b>
Drilling Firm: <b>Odyssey</b>	Drilling Method: <b>Geoprobe</b>	Surface Elev. (ft) <b>476.5</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>9.0</b>
Boring Location: <b>Outside Loop, South East</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>Jason Miller</b>		Drilling Equipment: <b>Geoprobe</b>
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time
N: 691242.8 E: 1459383.9		Depth (ft bgs)		Depth (ft bgs)

SAMPLE	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	P/D (PPM)	COMMENTS			
NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	P/D (PPM)	COMMENTS
			2	(0-9) brown clayey sand	SC		0	Temporary well installed to 9', with 5' of screen. Dry.          Soil sampled (8.5-9)
			4					
			6					
			8					
			10					
			12					
			14					
			16					
			18					
							EOB REFUSAL	

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# WELL CONSTRUCTION LOG

**WELL NO. GP-7/MW-2**

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/14/18</b>	Date Drilling Completed: <b>3/15/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>Odyssey</b>	Drilling Method: <b>Geoprobe/HSA</b>	Surface Elev. (ft) <b>476.1</b>	TOC Elevation (ft) <b>478.20</b>	Total Depth (ft bgs) <b>18.5</b>	Borehole Dia. (in) <b>6.25</b>
Boring Location: Downgradient/Loop Entrance N: 691291.1 E: 1459371.8		Personnel Logged By - David Kudla Driller - Jason Miller		Drilling Equipment: <b>Geoprobe</b>	
Civil Town/City/or Village: <b>Fallston</b>	County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling: Date/Time <u>3/15/18 00:00</u> ▾ Depth (ft bgs) <u>10.56</u> After Drilling: Date/Time <u>4/4/18 00:00</u> ▾ Depth (ft bgs) <u>10.64</u>		

SAMPLE	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	P/D (PPM)	COMMENTS
NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET			
	(0-12.5) brown sandy clay		CL	0	0	
			2	0	0	
			4	0	0	
			6	0	0	
			8	0	0	
			10	0	0	
			12	0	0	
	(12.5-14.5) red/brown clay		CL	0	0	
	(14.5-15) fine sand, saprolite		SP	0	0	Soil sampled (14.5-15).
	(15-16) brown/gray tight silty clay, quartz gravel		CL-ML	0	0	
	(16-18) fine sand, saprolite		SP	0	0	
	(18-18.5) gray clay, quartz cobbles		CL	0	0	
	EOB REFUSAL					

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18





# SOIL BORING LOG

**BORING NO. GP-9**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/15/18</b>	Date Drilling Completed: <b>3/15/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>Odyssey</b>	Drilling Method: <b>Geoprobe</b>	Surface Elev. (ft) <b>476.9</b>	TOC Elevation (ft) <b>---</b>	Total Depth (ft bgs) <b>20.0</b>	Borehole Dia. (in) <b>2.25</b>
Boring Location: <b>Outside Loop, South Corner</b>		Personnel Logged By - <b>David Kudla</b> Driller - <b>Jason Miller</b>		Drilling Equipment: <b>Geoprobe</b>	
Civil Town/City/or Village: <b>Fallston</b>		County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling:      Date/Time After Drilling:      Date/Time	
				Depth (ft bgs)	Depth (ft bgs)

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	PID (PPM)	COMMENTS
				0	(0-0.5) gravel cover			0	
				2	(0.5-7) brown sandy clay and silt	CL		0	
				4				0	
				6				0	
				8	(7-8) quartz rock and fine sand	SP		0	
				10	(8-12) brown clayey medium sand	SC		0	
				12				0	
				14	(12-17) brown fine sand and silt	SM		0	
				16				0	
				18	(17-17.5) brown sand and gravel, water at 17'	SP		0	
				18	(17.5-18.5) brown fine sand and silt	SM		0	
				20	(18.5-20) red brown sandy clay	CL		0	
				20	EOB			0	

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

Signature:	Firm: TRC Environmental Corporation 1601 Market St., Suite 2555 Philadelphia, PA 19103	Phone 215.563.2122 Fax 215.563.2339
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**WELL CONSTRUCTION LOG**

**WELL NO. GP-10/MW-3**

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/16/18</b>	Date Drilling Completed: <b>3/16/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>Odyssey</b>	Drilling Method: <b>Geoprobe/HSA</b>	Surface Elev. (ft) <b>477.2</b>	TOC Elevation (ft) <b>476.86</b>	Total Depth (ft bgs) <b>23.0</b>	Borehole Dia. (in) <b>6.25</b>
Boring Location: Side-Gradient N: 691214.1 E: 1459353.5		Personnel Logged By - David Kudla Driller - Jason Miller		Drilling Equipment: <b>Geoprobe</b>	
Civil Town/City/or Village: <b>Fallston</b>	County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling: Date/Time <b>3/16/18 00:00</b> After Drilling: Date/Time <b>4/4/18 00:00</b>		Depth (ft bgs) <b>20</b> Depth (ft bgs) <b>19.5</b>

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	PID (PPM)	COMMENTS
				0	(0-4) red brown silt, sand, and cobbles	ML			0	
				2					0	
				4	(4-18.5) light brown medium sand, some clay, cobbles				0	
				6					0	
				8					0	
				10		SM			0	
				12					0	
				14					0	
				16					0	
				18					0	
				19.5	(18.5-23) brown fine sand, saprolite	SP			0	Soil sampled (18-18.5).

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18



# WELL CONSTRUCTION LOG

WELL NO. GP-10/MW-3

Page 2 of 2

SAMPLE		BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	PID (PPM)	COMMENTS
NUMBER AND TYPE	RECOVERY (%)								
			22	EOB REFUSAL	SP			0	
								0	
								0	
								0	
			24						
			26						
			28						
			30						
			32						
			34						
			36						
			38						
			40						
			42						
			44						
			46						

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONIMD.GPJ 6/7/18



# WELL CONSTRUCTION LOG

**WELL NO. MW-6**

Page 1 of 1

Facility/Project Name: <b>Colonial - Bel Air Station</b>		Date Drilling Started: <b>3/19/18</b>	Date Drilling Completed: <b>3/19/18</b>	Project Number: <b>299980</b>	
Drilling Firm: <b>Odyssey</b>	Drilling Method: <b>Geoprobe/HSA</b>	Surface Elev. (ft) <b>477.2</b>	TOC Elevation (ft) <b>480.62</b>	Total Depth (ft bgs) <b>23.5</b>	Borehole Dia. (in) <b>6.25</b>
Boring Location: Downgradient/Facility Entrance N: 691385.8 E: 1459488.1		Personnel Logged By - David Kudla Driller - Jason Miller		Drilling Equipment: <b>Geoprobe</b>	
Civil Town/City/or Village: <b>Fallston</b>	County: <b>Harford</b>	State: <b>MD</b>	Water Level Observations: While Drilling: Date/Time <u>3/19/18 00:00</u> ▽ Depth (ft bgs) <u>19</u> After Drilling: Date/Time <u>4/4/18 00:00</u> ▽ Depth (ft bgs) <u>25.6</u>		

SAMPLE	NUMBER AND TYPE	RECOVERY (%)	BLOW COUNTS	DEPTH IN FEET	LITHOLOGIC DESCRIPTION	USCS	GRAPHIC LOG	WELL DIAGRAM	PID (PPM)	COMMENTS
				5	(0-9) brown sand, trace clay, occasional gravel	SP			0	
				10	(9-14) brown clayey sand, quartz rock at 14	SC			0	
				15	(14-16) brown sand, trace clay	SP			0	
				16	(16-17) brown clay	CL			0	
				17	(17-19.25) brown sand	SP			0	
				20	(19.25-21) green/brown silt and clay, saprolite, quartz rock	ML			0	
				21	(21-24) light/dark brown sand (saprolite), quartz rock at 23.5	SP			0	
				25	Refusal of direct push boring. Continued with hollow stem auger to 27'. EOB				0	

SOIL BORING WELL CONSTRUCTION LOG COLONIALBELAIR\_FALLSTONMD.GPJ 6/7/18

## **APPENDIX F**

### Soil Boring and Monitoring Well Permit Documentation

<b>B 1</b> <u>29822</u>	SEQUENCE NO. (MDE USE ONLY)	<b>STATE OF MARYLAND</b> <b>APPLICATION FOR PERMIT TO DRILL WELL</b> <small>please type</small>	STATE PERMIT NUMBER <b>HA -16 - 0259</b> <small>fill in this form completely</small>
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**OWNER INFORMATION**

Date Received (APA) \_\_\_\_\_

8 MM DD YY 13  
Colonial Pipeline Company

15 Last Name Owner First Name 34  
2942 Charles Street

36 Street or RFD 55  
Fallston MD 21047

57 Town 70 State 72 Zip 76

**B 3** LOCATION OF WELL

Harford  
8 COUNTY 21

23 SUBDIVISION 42

SECTION 44 46 LOT 48 50

Fallston  
52 NEAREST TOWN 71

**DRILLER INFORMATION**

Jason Miller MGD 110  
Driller's Name 76 License No. 81

Odyssey Environmental Services Inc  
Firm Name 1111 Gwynn Road

Dauphin Pa 17018  
Address

J. L. Miller 3-19-18  
Signature Date

**B 4** SOURCES OF DRILLING WATER

1 potable  
2 by  
3 Odyssey

2942 Charles Street  
11 STREET ADDRESS 30

ON WHICH SIDE OF ROAD  
(CIRCLE APPROPRIATE BOX)

NORTH  
 WEST  
 EAST  
 SOUTH

34 816 37  
DISTANCE FROM ROAD FT

ENTER FT OR MI 38 39

TAX MAP 039 BLK 002B PARCEL 401  
Arid

**B 2** WELL INFORMATION

APPROX PUMPING RATE (GAL PER MIN.) \_\_\_\_\_

AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) \_\_\_\_\_

**USE FOR WATER** (CIRCLE APPROPRIATE BOX)

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

INDUSTRIAL, COMMERCIAL, DEWATERING

PUBLIC WATER SUPPLY WELL

TEST, OBSERVATION, MONITORING

OPEN LOOP GEOTHERMAL

CLOSED LOOP GEOTHERMAL

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**

COUNTY NAME \_\_\_\_\_ COUNTY NO \_\_\_\_\_

STATE SIGNATURE \_\_\_\_\_ INSERT S → 41

DATE ISSUED \_\_\_\_\_

43 MM DD YY 48 CO SIGNATURE \_\_\_\_\_ EXP DATE \_\_\_\_\_

APPROXIMATE DEPTH OF WELL 18 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

**METHOD OF DRILLING** (circle one)

BORED (or Augered)  JETTED  Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other \_\_\_\_\_

**REPLACEMENT OR DEEPEINED WELLS** (CIRCLE APPROPRIATE BOX)

THIS WELL WILL NOT REPLACE AN EXISTING WELL

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39  THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS

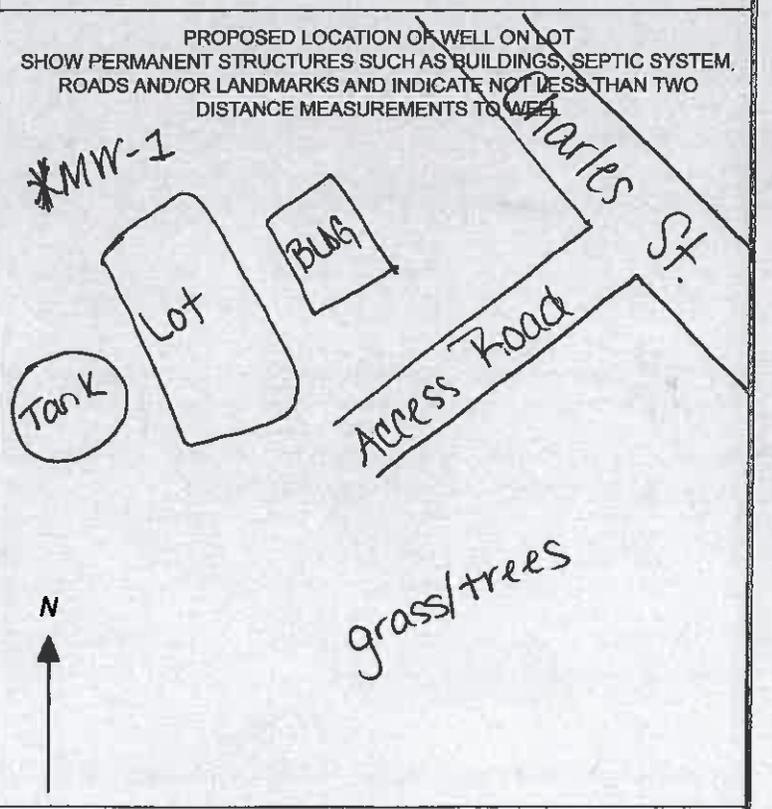
THIS WELL WILL DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 \_\_\_\_\_ 52

**Not to be filled in by driller (MDE OR COUNTY USE ONLY)**

APPROP PERMIT NUMBER \_\_\_\_\_ G \_\_\_\_\_

PERMIT No. \_\_\_\_\_



**SPECIAL CONDITIONS**

NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

B 1 29821 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type

STATE PERMIT NUMBER HA-16-0258 fill in this form completely

OWNER INFORMATION Colonial Pipeline Company 2942 Charles Street Fallston MD 21047

LOCATION OF WELL Harford COUNTY Fallston NEAREST TOWN

DRILLER INFORMATION Jason Miller MGD 110 Odyssey Environmental Services, Inc Dauphin, Pa 17018 3-19-18

SOURCES OF DRILLING WATER 1 potable by Odyssey 2942 Charles Street STREET ADDRESS 34 790 DISTANCE FROM ROAD FT TAX MAP 039 Grid PARCEL 401

WELL INFORMATION APPROX PUMPING RATE (GAL PER MIN.) AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY)

- USE FOR WATER (CIRCLE APPROPRIATE BOX) D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) I INDUSTRIAL, COMMERCIAL, DEWATERING P PUBLIC WATER SUPPLY WELL T TEST, OBSERVATION, MONITORING O OPEN LOOP GEOTHERMAL C CLOSED LOOP GEOTHERMAL

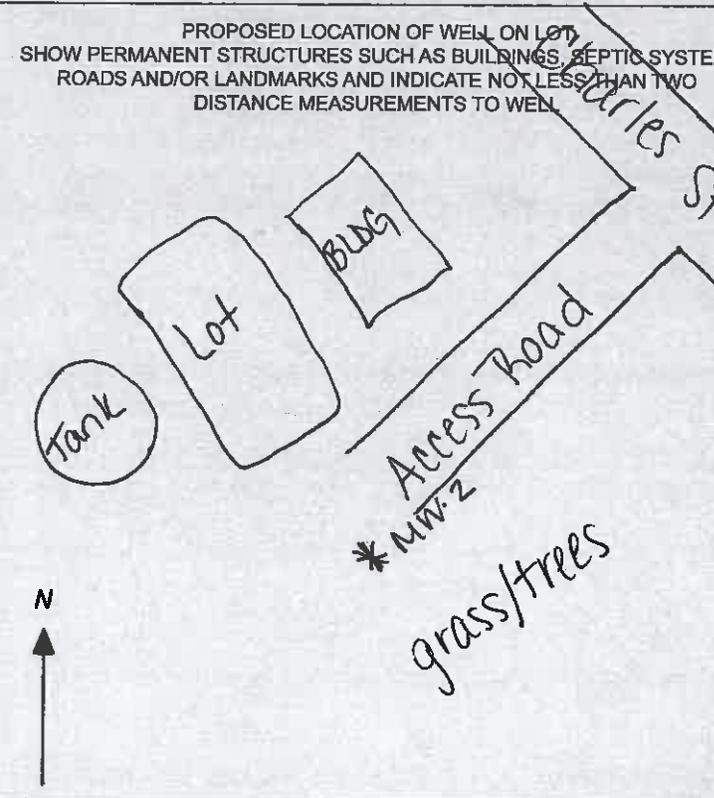
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL COUNTY NAME COUNTY NO STATE SIGNATURE DATE ISSUED CO SIGNATURE EXP DATE

APPROXIMATE DEPTH OF WELL 18 FEET APPROXIMATE DIAMETER OF WELL 4 INCH NEAREST INCH

METHOD OF DRILLING (circle one) BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary DRIVE-POINT

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX) N THIS WELL WILL NOT REPLACE AN EXISTING WELL Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS D THIS WELL WILL DEEPEIN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER PERMIT No



SPECIAL CONDITIONS NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

<b>B 1</b>	<b>29823</b>	SEQUENCE NO. (MDE USE ONLY)	<b>STATE OF MARYLAND</b> <b>APPLICATION FOR PERMIT TO DRILL WELL</b> please type	STATE PERMIT NUMBER <b>HA-16-0255</b> <small>fill in this form completely</small>
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**OWNER INFORMATION**

Date Received (APA) \_\_\_\_\_

8 MM DD YY 13  
 15 Last Name Owner First Name 34  
Colonial Pipeline Company

36 Street or RFD 55  
2942 Charles St.

57 Town 70 State 72 Zip 76  
Fallston MD 21047

**B 3 LOCATION OF WELL**

Harford  
8 COUNTY 21

23 SUBDIVISION 42

SECTION 44 LOT 48  
46 50

Fallston MD  
52 NEAREST TOWN 71

**DRILLER INFORMATION**

Driller's Name Jason Miller License No. MG 0110  
76 81

Firm Name Odyssey Environmental Services, Inc  
1111 520 View Road  
Dauphin Pa 17018

Address 2 Mill Date 3-19-18  
Signature 34

**B 4 SOURCES OF DRILLING WATER**

1 potable  
2 by  
3 Odyssey

2942 Charles St.  
11 STREET ADDRESS 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
 NORTH N  
 WEST W EAST E  
 SOUTH S  
 34 791 A 37  
 DISTANCE FROM ROAD FT. 38 39  
 ENTER FT OR MI  
 TAX MAP 039 Grid BLK-0002B PARCEL 401

**B 2 WELL INFORMATION**

APPROX PUMPING RATE (GAL PER MIN.) 8 12  
 AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) 14 20

**USE FOR WATER (CIRCLE APPROPRIATE BOX)**

D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

I INDUSTRIAL, COMMERCIAL, DEWATERING

P PUBLIC WATER SUPPLY WELL

T TEST, OBSERVATION, MONITORING

O OPEN LOOP GEOTHERMAL

C CLOSED LOOP GEOTHERMAL

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**

COUNTY NAME \_\_\_\_\_ COUNTY NO \_\_\_\_\_

STATE SIGNATURE \_\_\_\_\_ INSERT S → 41

DATE ISSUED \_\_\_\_\_

43 MM DD YY 48 CO SIGNATURE \_\_\_\_\_ EXP DATE \_\_\_\_\_

APPROXIMATE DEPTH OF WELL 20 FEET  
24 28

APPROXIMATE DIAMETER OF WELL 4 INCH  
NEAREST INCH

**METHOD OF DRILLING (circle one)**

BORED (or Augered)  JETTED  Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other \_\_\_\_\_

**REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)**

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39  S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS

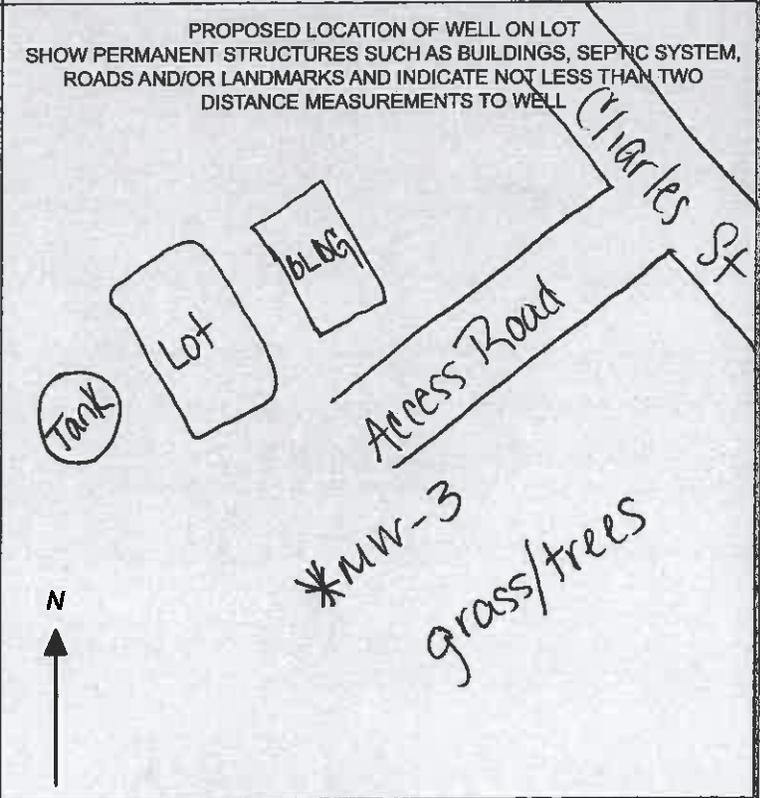
D THIS WELL WILL DEEPEM AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 \_\_\_\_\_ 52

**Not to be filled in by driller (MDE OR COUNTY USE ONLY)**

APPROP. PERMIT NUMBER \_\_\_\_\_ G \_\_\_\_\_

PERMIT No \_\_\_\_\_  
70 71 72 73 74 75 76 77 78 79



**SPECIAL CONDITIONS**

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

B 1	<b>29824</b>	SEQUENCE NO (MDE USE ONLY)	STATE OF MARYLAND <b>APPLICATION FOR PERMIT TO DRILL WELL</b> please type	STATE PERMIT NUMBER <b>HA -16 -0257</b> <small>fill in this form completely</small>
Date Received (APA)		B 3 LOCATION OF WELL		
OWNER INFORMATION		8 COUNTY <u>Harford</u> 21		
8 MM DD YY 13 <u>Colonial Pipeline Company</u> 15 Last Name Owner First Name 34		23 SUBDIVISION _____ 42		
<u>2942 Charles Street</u> 36 Street or RFD 55		SECTION <u>44</u> <u>46</u> LOT <u>48</u> <u>50</u>		
<u>Fallston MD 21047</u> 57 Town 70 State 72 Zip 76		<u>Fallstown</u> 52 NEAREST TOWN 71		
DRILLER INFORMATION		B 4 SOURCES OF DRILLING WATER		
<u>Jason Miller</u> M G D 110 76 Driller's Name License No 81		1 <u>potable</u> 2 <u>by</u> 3 <u>Odyssey</u>		
<u>Odyssey Environmental Services, Inc</u> Firm Name		11 STREET ADDRESS 30 <u>2942 Charles Street</u> ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH WEST EAST SOUTH 34 685 37 DISTANCE FROM ROAD FT ENTER FT OR MI 38 39 TAX MAP <u>039</u> <u>002B</u> PARCEL <u>401</u> <u>Brid</u>		
<u>111 Cap View Rd</u> Address				
<u>J. Miller</u> 3-19-18 Signature Date				
B 2 WELL INFORMATION		NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL		
APPROX PUMPING RATE (GAL. PER MIN.) 8 12				
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20		COUNTY NAME _____ COUNTY NO _____ STATE SIGNATURE _____ INSERT S → 41 DATE ISSUED _____ 43 MM DD YY 48 CO SIGNATURE _____ EXP DATE _____		
USE FOR WATER (CIRCLE APPROPRIATE BOX)		PROPOSED LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL		
<input type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING <input type="checkbox"/> PUBLIC WATER SUPPLY WELL <input checked="" type="checkbox"/> TEST, OBSERVATION, MONITORING <input type="checkbox"/> OPEN LOOP GEOTHERMAL <input type="checkbox"/> CLOSED LOOP GEOTHERMAL				
APPROXIMATE DEPTH OF WELL <u>18</u> FEET 24 28				
APPROXIMATE DIAMETER OF WELL <u>4</u> INCH NEAREST INCH				
METHOD OF DRILLING (circle one)				
<input checked="" type="checkbox"/> BORED (or Augered) <input type="checkbox"/> JETTED <input type="checkbox"/> Jetted & DRIVEN <input type="checkbox"/> AIR-ROTary <input type="checkbox"/> AIR-PERcussion <input type="checkbox"/> ROTARY (Hydraulic Rotary) <input type="checkbox"/> CABLE <input type="checkbox"/> REVERSE-ROTary <input type="checkbox"/> DRIVE-POINT other _____				
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)				
<input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS <input type="checkbox"/> THIS WELL WILL DEEPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52				
Not to be filled in by driller (MDE OR COUNTY USE ONLY)				
APPROP PERMIT NUMBER _____ <u>G</u> _____				
PERMIT No _____ 70 71 72 73 74 75 76 77 78 79				
SPECIAL CONDITIONS				
NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED				

B 1	<b>29825</b>	SEQUENCE NO (MDE USE ONLY)	<b>STATE OF MARYLAND</b> <b>APPLICATION FOR PERMIT TO DRILL WELL</b> <small>please type</small>	STATE PERMIT NUMBER <b>HA -16 -0253</b> <small>fill in this form completely</small>
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**OWNER INFORMATION**

Date Received (APA) \_\_\_\_\_

8 MM DD YY 13  
**Colonial Pipeline Company**  
 15 Last Name Owner First Name 34  
**2942 Charles Street**  
 36 Street or RFD 55  
**Fallston MD 21047**  
 57 Town 70 State 72 Zip 76

**LOCATION OF WELL**

B 3

**Harford**  
 8 COUNTY 21  
 23 SUBDIVISION 42  
 SECTION 44 LOT 48  
**Fallston**  
 52 NEAREST TOWN 71

**DRILLER INFORMATION**

**Jason Miller** MGD 110  
 Driller's Name 76 License No. 81  
**Odyssey Environmental Services, Inc**  
 Firm Name  
**111 Gap View Rd**  
 Address **Dauphin, PA 17018**  
**A. C. Miller** 3-19-18  
 Signature Date

**SOURCES OF DRILLING WATER**

B 4

**2942 Charles Street**  
 11 STREET ADDRESS 30  
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
 NORTH  
 W W N E  
 WEST S EAST  
 SOUTH  
 34 688 37  
 DISTANCE FROM ROAD FT  
 ENTER FT OR MI 38 39  
 TAX MAP **039** BEG **0028** PARCEL **401**  
 Grid

**WELL INFORMATION**

B 2

APPROX. PUMPING RATE (GAL PER MIN.) \_\_\_\_\_  
 8 12  
 AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) \_\_\_\_\_  
 14 20

**USE FOR WATER (CIRCLE APPROPRIATE BOX)**

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION  
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)  
 22  INDUSTRIAL, COMMERCIAL, DEWATERING  
 PUBLIC WATER SUPPLY WELL  
 TEST, OBSERVATION, MONITORING  
 OPEN LOOP GEOTHERMAL  
 CLOSED LOOP GEOTHERMAL

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**

\_\_\_\_\_  
 COUNTY NAME COUNTY NO.  
 STATE SIGNATURE INSERT S → 41  
 DATE ISSUED  
 43 MM DD YY 48 CO SIGNATURE EXP DATE

APPROXIMATE DEPTH OF WELL 20 FEET  
 24 28

APPROXIMATE DIAMETER OF WELL 4 INCH  
 NEAREST

**METHOD OF DRILLING (circle one)**

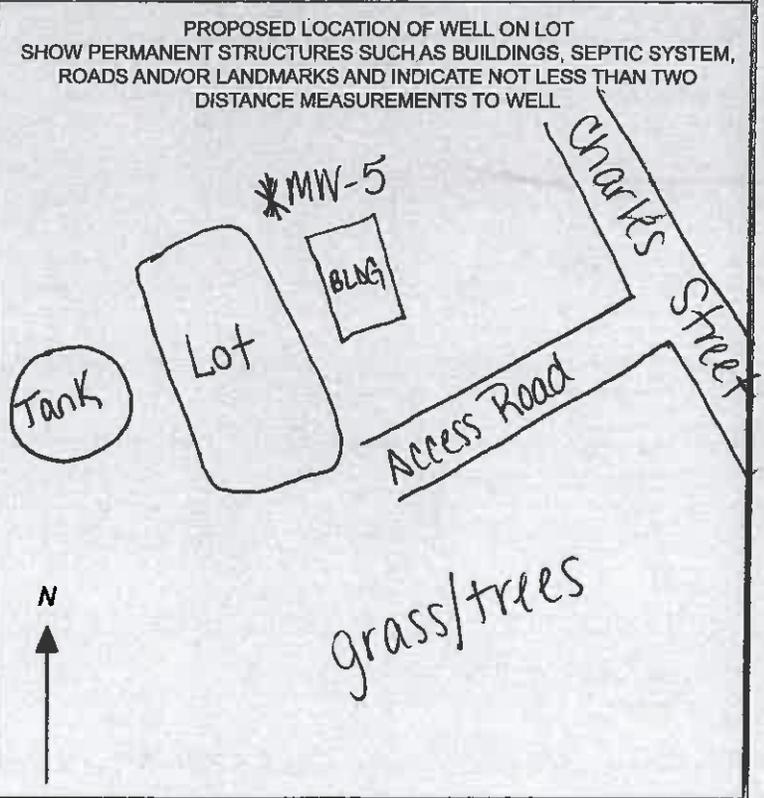
BORED (or Augered) JETTED Jetted & DRIVEN  
 30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)  
 37 CABLE REVERSE-ROTary DRIVE-POINT  
 other \_\_\_\_\_

**REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)**

THIS WELL WILL NOT REPLACE AN EXISTING WELL  
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED  
 39  THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS  
 THIS WELL WILL DEEPEMED AN EXISTING WELL  
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 \_\_\_\_\_ 52

**Not to be filled in by driller (MDE OR COUNTY USE ONLY)**

APPROX PERMIT NUMBER \_\_\_\_\_ **G** \_\_\_\_\_  
 PERMIT No. \_\_\_\_\_  
 70 71 72 73 74 75 76 77 78 79



B 1 29828

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type

STATE PERMIT NUMBER

HA -16 -0256 fill in this form completely

Date Received (APA)

OWNER INFORMATION

Colonial Pipeline Company 2947 Charles Street Fallston MD 21047

B 3 LOCATION OF WELL

Harford County Fallston

DRILLER INFORMATION

Jason Miller MGD 110 Odyssey Environmental Services, Inc 1111 Gapview Road Dauphin Pa 17018

B 4 SOURCES OF DRILLING WATER

1 potable 2 by Odyssey 3

2947 Charles Street ON WHICH SIDE OF ROAD DISTANCE FROM ROAD ENTER FT OR MI TAX MAP 039 PARCEL 401

B 2 WELL INFORMATION

APPROX PUMPING RATE (GAL PER MIN) AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) INDUSTRIAL, COMMERCIAL, DEWATERING PUBLIC WATER SUPPLY WELL TEST, OBSERVATION, MONITORING OPEN LOOP GEOTHERMAL CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

COUNTY NAME STATE SIGNATURE DATE ISSUED

APPROXIMATE DEPTH OF WELL 27 FEET

APPROXIMATE DIAMETER OF WELL 4 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary Drive-POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS THIS WELL WILL DEEPEM AN EXISTING WELL

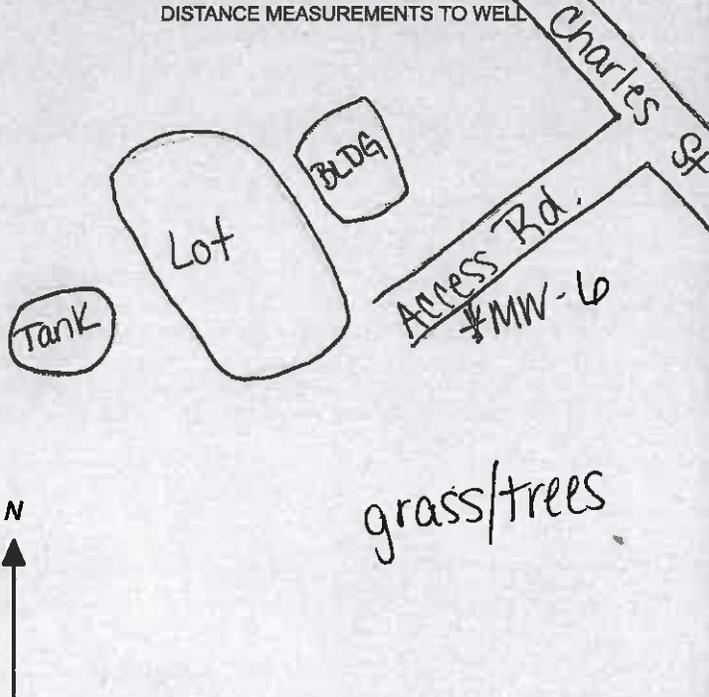
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROX PERMIT NUMBER

PERMIT No.

PROPOSED LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL



SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

B 1	<b>29829</b>	SEQUENCE NO. (MDE USE ONLY)	<b>STATE OF MARYLAND</b> <b>APPLICATION FOR PERMIT TO DRILL WELL</b> please type	STATE PERMIT NUMBER <b>HA -16 -0254</b> <small>70 fill in this form completely 79</small>
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**OWNER INFORMATION**

Date Received (APA) \_\_\_\_\_

8 MM DD YY 13  
**Colonial Pipeline Company**

15 Last Name Owner First Name 34  
**2942 Charles Street**

36 Street or RFD 55  
**Fallston MD 21047**

57 Town 70 State 72 Zip 76

**LOCATION OF WELL**

B 3

8 COUNTY **Harford** 21

23 SUBDIVISION \_\_\_\_\_ 42

SECTION **Fallston** LOT \_\_\_\_\_  
44 46 48 50

52 NEAREST TOWN 71

**DRILLER INFORMATION**

Driller's Name **Jason Miller** M **60 110** License No 81

Firm Name **Odyssey Environmental Services, Inc**

Address **111 Gap View Road**  
**Dauphin Pa 17018**

Signature **J. R. MWS** Date **3-14-18**

**SOURCES OF DRILLING WATER**

B 4

1 **potable**

2 **by**

3 **Odyssey**

11 STREET ADDRESS 30  
**2942 Charles Street**

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH  
 WEST  EAST  
 SOUTH

34 37 DISTANCE FROM ROAD  
ENTER FT OR MI 38 39

TAX MAP **039** Grid **00026** PARCEL **401**

**WELL INFORMATION**

B 2

1 2 APPROX PUMPING RATE (GAL PER MIN.) \_\_\_\_\_ 8 12

AVERAGE DAILY QUANTITY NEEDED (GAL PER DAY) \_\_\_\_\_ 14 20

**USE FOR WATER (CIRCLE APPROPRIATE BOX)**

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)

22  INDUSTRIAL, COMMERCIAL, DEWATERING

PUBLIC WATER SUPPLY WELL

TEST, OBSERVATION, MONITORING **soil borings only**

OPEN LOOP GEOTHERMAL

CLOSED LOOP GEOTHERMAL

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**

\_\_\_\_\_  
COUNTY NAME COUNTY NO \_\_\_\_\_

STATE SIGNATURE \_\_\_\_\_ INSERT S → 41

DATE ISSUED \_\_\_\_\_

43 MM DD YY 48 CO SIGNATURE EXP. DATE \_\_\_\_\_

APPROXIMATE DEPTH OF WELL **15** FEET  
24 28

APPROXIMATE DIAMETER OF WELL **2** INCH  
NEAREST INCH

**METHOD OF DRILLING (circle one)**

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other \_\_\_\_\_

**REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)**

THIS WELL WILL NOT REPLACE AN EXISTING WELL

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39  THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS

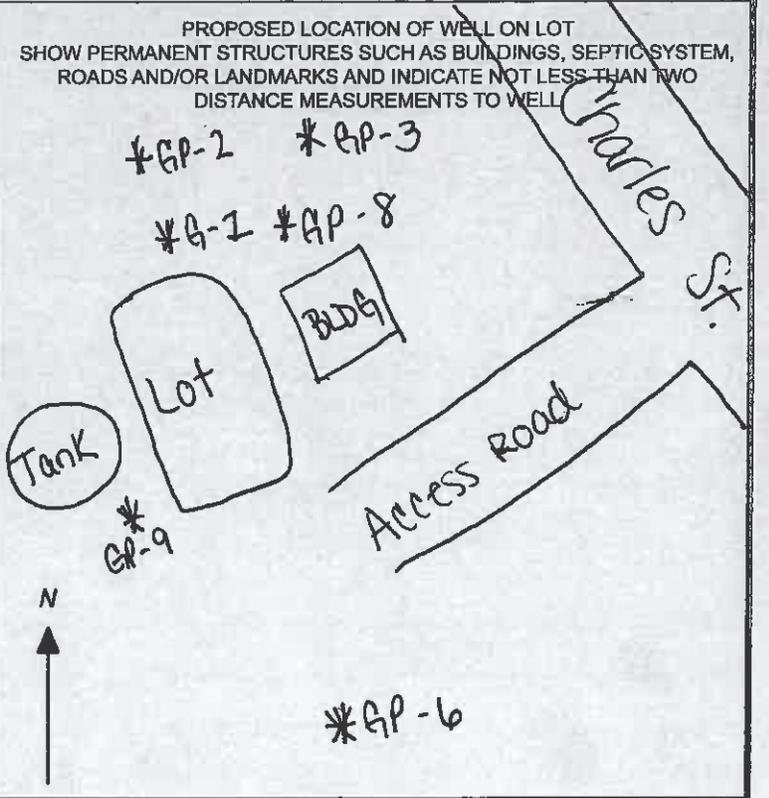
THIS WELL WILL DEEPEM AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 \_\_\_\_\_ 52

**Not to be filled in by driller (MDE OR COUNTY USE ONLY)**

APPROP. PERMIT NUMBER \_\_\_\_\_ **G** \_\_\_\_\_

PERMIT No \_\_\_\_\_  
70 71 72 73 74 75 76 77 78 79



**SPECIAL CONDITIONS**

NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

\*\*\*\*\*  
WATER WELL ABANDONMENT-SEALING REPORT FORM  
\*\*\*\*\*

**SUBMIT COPIES OF COMPLETED FORM TO:**

- \* COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed)
- \* WELL OWNER
- \* MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 3/14/18 (month/day/year)

\* PERMIT NUMBER OF ABANDONED WELL (if any)

HA - 16 - 0254

\* PERMIT NUMBER OF REPLACEMENT WELL:

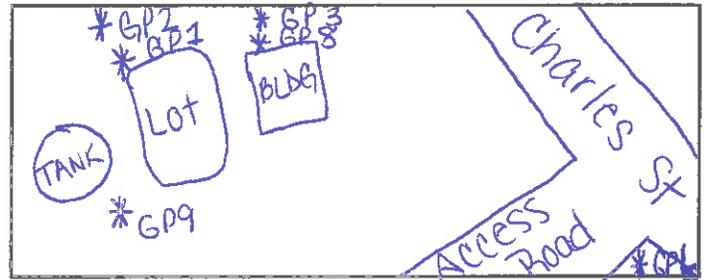
\* PERSON ABANDONING WELL: Zachary Hoppes WELL DRILLER'S LICENSE NUMBER: JG15097

CIRCLE: MWD / MSD / MGD JG15

\* OWNER'S NAME: Colonial Pipeline Company

\* WELL LOCATION:

SITE LOCATION MAP



COUNTY: Harford  
NEAREST TOWN: Fallston  
TAX MAP 039 BLOCK \_\_\_\_\_ PARCEL 401  
SUBDIVISION: \_\_\_\_\_  
SECTION: \_\_\_\_\_ LOT: \_\_\_\_\_  
STREET ADDRESS: 2942 Charles Street

LATITUDE 39.563615

LONGITUDE 76.478481

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
<u>cuttings</u>	<u>0</u>	<u>15</u>
VOLUME OF MATERIAL USED		
<u>.75 cubic feet</u>		

\* TYPE OF WELL BEING ABANDONED:

- DRILLED  JETTED
- BORED  HAND DUG
- OTHER (specify) \_\_\_\_\_

\* USE CODE:

- DOMESTIC  MUNICIPAL/PUBLIC
  - IRRIGATION  INDUSTRIAL
  - TEST/OBSERVATION  GEOTHERMAL
- soil borings only N/A

\* TYPE OF CASING:

- STEEL  PLASTIC
- CONCRETE  OTHER (specify) \_\_\_\_\_

SIZE OF CASING: 2 INCHES IN DIAMETER

DEPTH OF WELL: 15 FEET DEEP

WAS ANY CASING REMOVED?  YES  NO  
If yes, length removed, in feet: \_\_\_\_\_

WAS CASING RIPPED OR PERFORATED?  YES  NO

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN [Signature] LICENSE# M60110

MWD / MSD / MGS  
CIRCLE ONE

4/26/18 DATE

Pursuant to § 10-624 of the State Govt. Article of the Maryland Code, personal info requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or State Law.

C 1 16268 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

FILL IN THIS FORM COMPLETELY PLEASE TYPE soil borings

COUNTY NUMBER

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DATE Received MM DD YY

03 14 18

22 15 26 (TO NEAREST FOOT)

HA-16-0254

OWNER Colonial Pipeline Company WELL SITE ADDRESS 2942 Charles Street TOWN Fallston SUBDIVISION SECTION LOT

WELL LOG

Not required for driven wells

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS NO. OF POUNDS GALLONS OF WATER DEPTH OF GROUT SEAL (to nearest foot)

CASING RECORD

casings types insert appropriate code below MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)

OTHER CASING (if used)

diameter inch depth (feet) from to

SCREEN RECORD

screen type or open hole (insert appropriate code below) ST BR HO PL OT

DEPTH (nearest ft.)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Includes handwritten entries: Brown silt w/ cobbles, weathered schist, saprolite, soil borings only.

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) PUMPING RATE (gal. per min.) METHOD USED TO MEASURE PUMPING RATE WATER LEVEL (distance from land surface) BEFORE PUMPING WHEN PUMPING TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other (describe below) J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES OR NO) IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS. TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. CAPACITY: GALLONS PER MINUTE (to nearest gallon) PUMP HORSE POWER PUMP COLUMN LENGTH (nearest ft.) CASING HEIGHT (circle appropriate box and enter casing height) LAND SURFACE (nearest foot)

LATITUDE 39.563615 LONGITUDE 76.478481 (DEFAULT COORD. WGS 84)

NOTES:

soil borings only

DRILLERS LIC. NO. 1 MGD 110

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 160097

SIT SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 1 16279 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

FILL IN THIS FORM COMPLETELY PLEASE TYPE MW6

COUNTY NUMBER

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DATE Received MM DD YY

03 19 18

22 27 26 (TO NEAREST FOOT)

HA - 16 - 0256

OWNER Colonial Pipeline Company WELL SITE ADDRESS 2942 Charles Street

TOWN Fallston

SUBDIVISION

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)

FEET FROM TO

check if water bearing

Brown silt w/ cobbles

0 5

weathered schist, saprolite

5 27

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box)

yes no Y N

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 8 NO. OF POUNDS 50

GALLONS OF WATER 56

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 11 ft.

CASING RECORD

casing types insert appropriate code below

ST CO PL OT STEEL CONCRETE PLASTIC OTHER

MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot)

OTHER CASING (if used) diameter inch depth (feet) from to

screen type or open hole insert appropriate code below

SCREEN RECORD

ST BR HO PL OT STEEL BRASS OPEN HOLE BRONZE OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes no Y X

CIRCLE APPROPRIATE LETTER A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. MGD 110 DRILLERS SIGNATURE

LIC. NO. J 60097

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

C 2 DEPTH (nearest ft.)

PL 12' 27' 8 9 11 15 17 21 23 24 26 30 32 36 38 39 41 45 47 51

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES OR NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29.

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height) LAND SURFACE (nearest foot)

LATITUDE 39.563873 LONGITUDE 76.478007 (DEFAULT COORD. WGS 84)

NOTES:

6" stick-up

C 1 **16295** SEQUENCE NO. (MDE USE ONLY)  
 1 2 3 6  
 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

**STATE OF MARYLAND**  
**WELL COMPLETION REPORT**  
 FILL IN THIS FORM COMPLETELY  
 PLEASE TYPE **MW5**

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.  
 COUNTY NUMBER

ST/CO USE ONLY  
 DATE RECEIVED  
 MM DD YY  
 8 13

DATE WELL COMPLETED  
 MM DD YY  
**03 19 18**  
 15 20  
 Depth of Well  
 22 **20** 26  
 (TO NEAREST FOOT)

PERMIT NO.  
 FROM "PERMIT TO DRILL WELL"  
**HA-16-0253**  
 28 29 30 31 32 33 34 35 36 37

OWNER **Colonial Pipeline Company**  
 WELL SITE ADDRESS **2942 Charles Street** first name TOWN **Fallston**  
 SUBDIVISION SECTION LOT

**WELL LOG**  
 Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Brown silt w/ cobbles	0	5	
Weathered schist, saprolite	5	20	

NUMBER OF UNSUCCESSFUL WELLS: **0**

WELL HYDROFRACTURED  YES  NO

CIRCLE APPROPRIATE LETTER  
**A** A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED  
**E** ELECTRIC LOG OBTAINED **N/A**  
**P** TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. **MG D 110**  
 DRILLER'S SIGNATURE  
 (MUST MATCH SIGNATURE ON APPLICATION)  
 LIC. NO. **160092**

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

**GROUTING RECORD**  
 WELL HAS BEEN GROUTED (Circle Appropriate Box)  YES  NO  
 TYPE OF GROUTING MATERIAL (Circle one)  
 CEMENT  **CM** BENTONITE CLAY  **BC**  
 NO. OF BAGS **3** NO. OF POUNDS **50**  
 GALLONS OF WATER **21**  
 DEPTH OF GROUT SEAL (to nearest foot)  
 from **0** TOP ft. to **4** BOTTOM ft.  
 (enter 0 if from surface)

**CASING RECORD**  
 casing types insert appropriate code below  
 **ST** STEEL  **CO** CONCRETE  
 **PL** PLASTIC  **OT** OTHER  
 MAIN CASING TYPE **PL** Nominal diameter top (main) casing (nearest inch) **4** Total depth of main casing (nearest foot) **0' 5"**

OTHER CASING (if used)  
 diameter depth (feet)  
 inch from to

**SCREEN RECORD**  
 screen type or open hole  
 (insert appropriate code below)  
 **ST** STEEL  **BR** BRASS  **HO** OPEN HOLE  
 **PL** PLASTIC  **OT** OTHER

**C 2** DEPTH (nearest ft.)

1	<b>PL</b>	<b>5'</b>	<b>20'</b>
8			
9			
11			
15			
17			
21			
23			
24			
26			
30			
32			
36			
38			
39			
41			
45			
47			
51			

SLOT SIZE **1.020** 2 3

DIAMETER OF SCREEN **4** (NEAREST INCH)  
 56 60

from **4** to **20**

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)  
 T (E.R.O.S.) W Q  
 70 72 74 75 76  
 TELESCOPE LOG OTHER DATA  
 CASING INDICATOR

**C 3**

**PUMPING TEST**  
 HOURS PUMPED (nearest hour) **8 9**  
 PUMPING RATE (gal. per min.) **15**  
 METHOD USED TO MEASURE PUMPING RATE  
 WATER LEVEL (distance from land surface)  
 BEFORE PUMPING **17 20** ft.  
 WHEN PUMPING **22 25** ft.  
 TYPE OF PUMP USED (for test)  
 **A** air  **P** piston  **T** turbine  
 **C** centrifugal  **R** rotary  **O** other (describe below)  
 **J** jet  **S** submersible

**PUMP INSTALLED**  
 DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO  
 IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.  
 TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29  
 CAPACITY: GALLONS PER MINUTE (to nearest gallon) **31 35**  
 PUMP HORSE POWER **37 41**  
 PUMP COLUMN LENGTH (nearest ft.) **43 47**  
 CASING HEIGHT (circle appropriate box and enter casing height)  
 **+** above } LAND SURFACE  
 **-** below } (nearest foot)

LATITUDE **39.563903**  
 LONGITUDE **76.478695**  
 (DEFAULT COORD. WGS 84)

NOTES:  
**flushmount**

C 1 16294

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

FILL IN THIS FORM COMPLETELY PLEASE TYPE MW 4

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

MM DD YY 8 13

MM DD YY 03 19 18

22 18 26 (TO NEAREST FOOT)

HA - 16 - 0257

OWNER Colonial Pipeline Company

WELL SITE ADDRESS 2945 Charles Street TOWN Faulston

SUBDIVISION SECTION LOT

WELL LOG

Not required for driven wells

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N

TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC

NO. OF BAGS 45 46 1 NO. OF POUNDS 45 46 50

GALLONS OF WATER 7

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 2 ft. (enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE PL Nominal diameter top (main casing) (nearest inch) 4 Total depth of main casing (nearest foot) 0'-3'

OTHER CASING (if used) diameter inch depth (feet) from to

SCREEN RECORD

screen type or open hole insert appropriate code below ST STEEL BR BRASS HO OPEN HOLE PL PLASTIC OT OTHER

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes handwritten entries: Brown silt w/ cobbles (0-5), Weathered schist, saprolite (5-18).

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)

BEFORE PUMPING 17 20 ft.

WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)

A air P piston T turbine

C centrifugal R rotary O other (describe below)

J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

LAND SURFACE (nearest foot)

LATITUDE 39.563753 LONGITUDE 76.478521 (DEFAULT COORD. WGS 84)

NOTES: flushmount

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES Y NO N

CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED P TEST WELL CONVERTED TO PRODUCTION WELL N/A

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. MD 110

DRILLER'S SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. JGD 097

SITE SUPERVISOR (sign of driller or journeyman responsible for sitework if different from permittee)

C 2 DEPTH (nearest ft.)

1 PL 3' 18'

2 23 24 26 30 32 36

3 38 39 41 45 47 51

SLOT SIZE 1 020 2 3

DIAMETER OF SCREEN 4 (NEAREST INCH)

from 2 to 18

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

70 72 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

C1 16293

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

COUNTY NUMBER

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DATE Received MM DD YY

03 19 18

22 20 26 (TO NEAREST FOOT)

HA-116-0255

OWNER Colonial Pipeline Company

WELL SITE ADDRESS 2942 Charles Street

TOWN Fallston

SUBDIVISION

SECTION

LOT

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Brown silt w/ cobbles and weathered schist, saprolite.

GROUTING RECORD

WELL HAS BEEN GROUTED (Y/N), TYPE OF GROUTING MATERIAL (CM, BC), NO. OF BAGS, NO. OF POUNDS, GALLONS OF WATER, DEPTH OF GROUT SEAL.

CASING RECORD

MAIN CASING TYPE (PL), Nominal diameter top (main) casing (4), Total depth of main casing (0' 5').

OTHER CASING (if used)

Table for OTHER CASING with columns: diameter inch, depth (feet) from, to.

SCREEN RECORD

screen type or open hole (PL), insert appropriate code below.

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED (Y/N)

CIRCLE APPROPRIATE LETTER: A (well abandoned), E (electric log), P (test well converted).

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION"

DRILLERS LIC. NO. 1 MGD 110, DRILLERS SIGNATURE

UC. NO. 1 JGD 097, SITE SUPERVISOR sign.

DEPTH (nearest ft.) 5' 20'

Table for E A C H S C R E E N with columns 1-51 and rows 1-3.

DIAMETER OF SCREEN 4 (NEAREST INCH), from 4 to 20

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING, LOG INDICATOR, OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED, PUMPING RATE, METHOD USED TO MEASURE PUMPING RATE, WATER LEVEL, BEFORE PUMPING, WHEN PUMPING, TYPE OF PUMP USED.

PUMP INSTALLED

DRILLER INSTALLED PUMP (YES/NO), IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS, TYPE OF PUMP INSTALLED, CAPACITY, PUMP HORSE POWER, PUMP COLUMN LENGTH, CASING HEIGHT, LAND SURFACE.

LATITUDE 39.563615, LONGITUDE 76.478481 (DEFAULT COORD. WGS 84)

NOTES: 6" stick-up

C1 16277

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

COUNTY NUMBER

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER Colonial Pipeline Company WELL SITE ADDRESS 2942 Charles Street TOWN Fallston

WELL LOG

Not required for driven wells

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES [Y] NO [N] TYPE OF GROUTING MATERIAL (Circle one) CEMENT [CM] BENTONITE CLAY [BC] NO. OF BAGS 1 NO. OF POUNDS 50 GALLONS OF WATER 7 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 2 ft.

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 8 9 PUMPING RATE (gal. per min.) 11 15 METHOD USED TO MEASURE PUMPING RATE WATER LEVEL (distance from land surface) BEFORE PUMPING 17 20 ft. WHEN PUMPING 22 25 ft. TYPE OF PUMP USED (for test) [A] air [P] piston [T] turbine [C] centrifugal [R] rotary [O] other (describe below) [J] jet [S] submersible

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Rows: Brown silt w/ cobbles (0-5), weathered schist, saprolite (5-18)

CASING RECORD

caseing types insert appropriate code below [ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch)! 4 Total depth of main casing (nearest foot) 0' 3"

OTHER CASING (if used)

Table with columns: diameter inch, depth (feet) from, to

SCREEN RECORD

screen type or open hole (insert appropriate code below) [ST] STEEL [BR] BRASS [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED [Y] [N]

CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED E ELECTRIC LOG OBTAINED N/A P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. 1 MGD110 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 JG0097

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

Table with columns: E A C H S C R E E N, DEPTH (nearest ft.), SLOT SIZE, DIAMETER OF SCREEN

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

70 TELESCOPE CASING 72 LOG INDICATOR 74 75 76 OTHER DATA

PUMP INSTALLED DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS. TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35 PUMP HORSE POWER 37 41 PUMP COLUMN LENGTH (nearest ft.) 43 47 CASING HEIGHT (circle appropriate box and enter casing height) [ ] above [ ] below LAND SURFACE (nearest foot)

LATITUDE 39.568404 LONGITUDE 76.418548 (DEFAULT COORD. WGS 84)

NOTES: flushmount

C1 **16278** SEQUENCE NO. (MDE USE ONLY)  
 1 2 3 6  
 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

**STATE OF MARYLAND**  
**WELL COMPLETION REPORT**  
 FILL IN THIS FORM COMPLETELY PLEASE TYPE **MW1**

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.  
 COUNTY NUMBER

ST/CO USE ONLY  
 DATE RECEIVED  
 MM DD YY  
 8 13

DATE WELL COMPLETED  
 MM DD YY  
 03 19 18  
 15 20  
 Depth of Well  
 22 18 26  
 (TO NEAREST FOOT)

PERMIT NO.  
 FROM "PERMIT TO DRILL WELL"  
**HA-16-0259**  
 28 29 30 31 32 33 34 35 36 37

OWNER **Colonial Pipeline Company**  
 WELL SITE ADDRESS **2942 Charles Street** first name TOWN **Fallston**  
 SUBDIVISION SECTION LOT

**WELL LOG**  
 Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Brown silt w/ cobbles	0	5	
weathered schist, saprolite	5	18	

**GROUTING RECORD** YES NO  
 WELL HAS BEEN GROUTED (Circle Appropriate Box) **Y** **N**  
 TYPE OF GROUTING MATERIAL (Circle one)  
 CEMENT **CM** BENTONITE CLAY **BC**  
 NO. OF BAGS <sup>45 46</sup> **1** NO. OF POUNDS <sup>47 48</sup> **50**  
 GALLONS OF WATER **7**  
 DEPTH OF GROUT SEAL (to nearest foot)  
 from **0** TOP 48 52 54 58 ft. to **2** BOTTOM 54 58 ft.  
 (enter 0 if from surface)

**CASING RECORD**  
 casing types insert appropriate code below  
**ST** STEEL **CO** CONCRETE  
**PL** PLASTIC **OT** OTHER  
 MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot)  
**PL** **4** **0' - 3'**  
 60 61 63 64 66 70

**OTHER CASING (if used)**  
 diameter depth (feet)  
 inch from to

screen type or open hole insert appropriate code below  
**SCREEN RECORD**  
**ST** STEEL **BR** BRASS **HO** OPEN HOLE  
**PL** PLASTIC **OT** OTHER

NUMBER OF UNSUCCESSFUL WELLS: **0**  
 WELL HYDROFRACTURED yes **Y** no **X**  
 CIRCLE APPROPRIATE LETTER  
**A** A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED  
**E** ELECTRIC LOG OBTAINED **N/A**  
**P** TEST WELL CONVERTED TO PRODUCTION WELL

**C 2** DEPTH (nearest ft.)  
 1 **PL** 3' 18'  
 E A C H S C R E E N  
 8 9 11 15 17 21  
 23 24 26 30 32 36  
 38 39 41 45 47 51  
 SLOT SIZE 1 **020** 2 3  
 DIAMETER OF SCREEN **4** (NEAREST INCH)  
 from **2** to **18**  
 56 60 68

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 28.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. **MGD 110**  
 DRILLERS SIGNATURE  
 (MUST MATCH SIGNATURE ON APPLICATION)  
 LIC. NO. **JG0097**  
 SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68  
 MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)  
 T (E.R.O.S.) W Q  
 70 72 74 75 76  
 TELESCOPE CASING LOG INDICATOR OTHER DATA

**C 3** **PUMPING TEST**  
 HOURS PUMPED (nearest hour) **8** **9**  
 PUMPING RATE (gal. per min.) **11** **15**  
 METHOD USED TO MEASURE PUMPING RATE  
 WATER LEVEL (distance from land surface)  
 BEFORE PUMPING **17** **20** ft.  
 WHEN PUMPING **22** **25** ft.  
 TYPE OF PUMP USED (for test)  
**A** air **P** piston **T** turbine  
**C** centrifugal **R** rotary **O** other (describe below)  
**J** jet **S** submersible

**PUMP INSTALLED**  
 DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO  
 IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.  
 TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. **29**  
 CAPACITY: GALLONS PER MINUTE (to nearest gallon) **31** **35**  
 PUMP HORSE POWER **37** **41**  
 PUMP COLUMN LENGTH (nearest ft.) **43** **47**  
 CASING HEIGHT (circle appropriate box and enter casing height)  
**+** above } LAND SURFACE (nearest foot)  
**-** below }

LATITUDE **39.563739**  
 LONGITUDE **76.47924**  
 (DEFAULT COORD. WGS 84)  
 NOTES:  
**6" stick-up**

## **APPENDIX G**

### Residential Well Public Record Search Summary

**Residential Well Public Record Search Summary**  
**May 23, 2018**



Colonial Pipeline Company - Bel Air Pump Station  
 2942 Charles Street, Fallston, Harford County, Maryland

Property Owner	Owner on Well Permits	Property Address					Owner Property Address					Well Information			
		Number	Street	City	State	Zipcode	Number	Street	City	State	Zipcode	Depth (ft)	Casing Depth (ft)	Screen Depth (ft)	Well Status
Stephen B and Darlene Ramsey	---	2260	Baldwin Mill Rd	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Chester A and Janet L Coughenour	---	2849	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
John R Rist	Same	2857	Charles St	Fallston	MD	21047	7510	Eaglewalk Ct	Baltimore	MD	21237	275	21	Open Hole	Unknown
Kristin Stock	---	2859	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Shawn A and Laura A Mooney	---	2861	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Rodney and Sandra O'Neal	Same	2902	Charles St	Fallston	MD	21047	2902	Charles St	Fallston	MD	21047	625	47	Open Hole	Unknown
Rodney and Sandra O'Neal	Same	2902	Charles St	Fallston	MD	21047	2902	Charles St	Fallston	MD	21047	525	38	Open Hole	Unknown
							9702	Redwing Dr	Perry Hall	MD	21128				
Christopher and Mary Carol Jacob	Robert Wilson	2906	Charles St	Fallston	MD	21047	2309	Bel Air Rd	Fallston	MD	21047	500	66	Open Hole	Unknown
Charles C Gast Jr and Mary F Gast	Robert Wilson	2912	Charles St	Fallston	MD	21047	2309	Bel Air Rd	Fallston	MD	21047	400	44	Open Hole	Unknown
Gregory and Karen Reed	Craig Falanga	2918	Charles St	Fallston	MD	21047	2918	Charles St	Fallston	MD	21047	700	38	Open Hole	Unknown
Francis D and Virginia N Riley	---	2922	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
David H Kaminkow	Joeseph T Kaminkow	2929	Charles St	Fallston	MD	21047	Rt 2	Box 346	Fallston	MD	21047	~100	Unknown	Unknown	Unknown
Joseph T and Sandra L Kaminkow	Abe Kaminkow	2931	Charles St	Fallston	MD	21047	2931	Charles St	Fallston	MD	21047	258	21	Open Hole	Unknown
Joseph T and Sandra L Kaminkow	David Kaminkow	2931	Charles St	Fallston	MD	21047	2931	Charles St	Fallston	MD	21047	~200	---	---	Abandoned
Christopher and Kathryn Potter	---	2932	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Ryan and Alissa Hurlock	William R Winterstein	2935	Charles St	Fallston	MD	21047	2012	Trout Farm Rd	Jarettsville	MD	21084	500	50	Open Hole	Abandoned
Richard A and Heather L Rasmussen	---	2936	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Stephen R Bailey and Rose M Kucharczyk	Brook Lynch	3001	Charles St	Fallston	MD	21047	3001	Charles St	Fallston	MD	21047	400	24	Open Hole	Unknown
Jonathan N and Lisa M Kielek	---	3003	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Robert R Reese	Same	3006	Charles St	Fallston	MD	21047	3012	Charles St	Fallston	MD	21047	450	42	Open Hole	Unknown
Kelsey M Yoor	Arthur Howell	3007	Charles St	Fallston	MD	21047	3007	Charles St	Fallston	MD	21047	350	20	Open Hole	Unknown
Kelsey M Yoor	Arthur Howell	3007	Charles St	Fallston	MD	21047	3007	Charles St	Fallston	MD	21047	15	4	15	Unknown
Harold L and Suzanne C Hannon	---	3012	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Stephen L and Katherine E Smith	---	3024	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Colin S and Rebecca J Smith	Stephen L and Katherine E Smith	3026	Charles St	Fallston	MD	21047	3024	Charles St	Fallston	MD	21047	600	73	Open Hole	Unknown
Platinum Construction Group	---	3029	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Mary E Dean	Norman E. Dean	3040	Charles St	Fallston	MD	21047	PO Box	669	Bel Air	MD	21014	250	28	Open Hole	Unknown
Mary E Dean							PO Box	555	Fallston	MD	21047				
Rosanne Jeppi	---	3041	Charles St	Fallston	MD	21047	PO Box	498	Fallston	MD	21047	---	---	---	---
Thomas M and Melissa C Burke	---	3044	Charles St	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Andrew J Canapp	Melvin Huber	2225	Engle Rd	Fallston	MD	21047	2255	Schustar Rd	Jarettsville	MD	21084	300	60	Open Hole	Abandoned
Kenneth J Hall and Sarah B Bubb	---	2229	Engle Rd	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Anthony C and Debora A Honig	Christopher Weisner	2235	Engle Rd	Fallston	MD	21047	611	David Ave	Westminster	MD	21157	400	62	60, 120, and 200'	Unknown
Joshua W Zielinski and Christina G Hall	---	2237	Engle Rd	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Patricia E and Lisbeth L Fouse	Earl E. Preston JR Inc	2241	Engle Rd	Fallston	MD	21047	2228	Engle Rd	Fallston	MD	21047	500	48	Open Hole	Unknown
Tana L Hope-Bogush	David Bogush	2243	Engle Rd	Fallston	MD	21047	2243	Engle Rd	Fallston	MD	21047	425	Unknown	Unknown	Unknown
Lewis H Walker	---	2249	Engle Rd	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Jerry F and Brenda Rush	Artwood	2309	Kings Arms Dr	Fallston	MD	21047	---	---	---	---	---	400	---	---	---
Ridgefield Farm Homeowners Assoc Inc	---	2605	Laurel Brook Rd	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Ridgefield Farm Homeowners Assoc Inc	---	2607	Laurel Brook Rd	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Baltimore Gas & Electric	---	Map 24	Parcel 0	Jarettsville	MD	21047	PO Box	1475	Baltimore	MD	21203	---	---	---	---

**Residential Well Public Record Search Summary**  
**May 23, 2018**



Colonial Pipeline Company - Bel Air Pump Station  
 2942 Charles Street, Fallston, Harford County, Maryland

Property Owner	Owner on Well Permits	Property Address					Owner Property Address					Well Information			
		Number	Street	City	State	Zipcode	Number	Street	City	State	Zipcode	Depth (ft)	Casing Depth (ft)	Screen Depth (ft)	Well Status
Kenneth H and Gloria Wren	---	3300	Pritchett Lane	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
William M and Tamara A Caggese	---	3301	Pritchett Lane	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Anthony L and Michele A Nasco	---	3302	Pritchett Lane	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Martin K and Kristen T Wilson	---	3303	Pritchett Lane	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
David J and Janet L Smith	---	3305	Pritchett Lane	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
David L Rogers Jr and Shelia M Rogers	---	3307	Pritchett Lane	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Mark C Wilson	---	3309	Pritchett Lane	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Richard T Curry Jr and Regina R Curry	---	2009	Rutledge	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Harold D and Rebecca J Beavers	Jeff Beavers	2205	Rutledge	Fallston	MD	21047	2205	Rutledge Rd	Fallston	MD	21047	500	39	Open Hole	Unknown
Harold D and Rebecca J Beavers	Same	2205	Rutledge	Fallston	MD	21047	2205	Rutledge Rd	Fallston	MD	21047	450	72	Open Hole	Unknown
Harold D and Rebecca J Beavers	Same	2205	Rutledge	Fallston	MD	21047	2205	Rutledge Rd	Fallston	MD	21047	200	39 and 78	Open Hole	Unknown
Harold D and Rebecca J Beavers	Same	2205	Rutledge	Fallston	MD	21047	2205	Rutledge Rd	Fallston	MD	21047	400	80 and 116	Open Hole	Abandoned
							PO Box	502	Fallston	MD	21047				
David M and Sandra L Bran	---	2207	Rutledge	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Columbia Gas Transmission Corp	---	2220	Rutledge	Fallston	MD	21047	PO Box	17	Columbus	OH	43216	---	---	---	---
Mark R and Joan G Parris	---	2226	Rutledge	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Kenneth A and Pamela C Hornbeck	---	2230	Rutledge	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Neale R and James R Bierer	---	2238	Rutledge	Fallston	MD	21047	---	---	---	---	---	---	---	---	---
Trimble LLC	Same	2301	Rutledge	Fallston	MD	21047	3322	Hazelwood Dr	Fallston	MD	21047	400	73	Open Hole	Unknown
Trimble LLC	Same	2301	Rutledge	Fallston	MD	21047	3322	Hazelwood Dr	Fallston	MD	21047	300	35	37	Unknown
Trimble LLC	Same	2307	Rutledge	Fallston	MD	21047	2307	Rutledge Rd	Fallston	MD	21047	450	34	Open Hole	Unknown
Donald R Lange	---	1918	Treeline Dr	Forest Hill	MD	21050	3720	Norrisville Rd	Jarettsville	MD	21084	320	40	Open Hole	Unknown
Robert J and Kristina M Kraus	Charles Landing LLC	2004	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	500	55	Open Hole	Unknown
Charles E and Christine V Kief	Robert Wilson	2005	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	600	40	Open Hole	Abandoned
Charles E and Christine V Kief	Robert Wilson	2005	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	405	57 and 98	Open Hole	Unknown
Richard L and Jennifer R Ferrara	Charles Landing LLC	2006	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	500	46	Open Hole	Unknown
Brian D and Robin E Kelly	Charles Landing LLC	2007	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	500	58	Open Hole	Unknown
Joseph S and Risa L Pickle	Charles Landing LLC	2008	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	450	47	Open Hole	Unknown
Joseph S and Rebecca Papa	Charles Landing LLC	2009	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	450	37	Open Hole	Unknown
Bradford S and Barrie R Davis	Charles Landing LLC	2010	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	475	56	Open Hole	Unknown
Dennis J and Susan K Shaffer	Charles Landing LLC	2011	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	500	45	Open Hole	Unknown
William R Winterstein	Charles Landing LLC	2012	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	500	46	Open Hole	Unknown
Kevin J Kantor and Jeanine Upchurch	Charles Landing LLC	2013	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	500	54	Open Hole	Unknown
John C and Sara E Birkmire	Charles Landing LLC	2015	Trout Farm Rd	Jarettsville	MD	21084	2309	Bel Air Rd	Fallston	MD	21047	500	57	Open Hole	Unknown
Christopher D and Amy L Benson	Twinlakes LLC	2015	Twin Lakes Dr	Jarettsville	MD	21084	PO Box	7	Fallston	MD	21047	300	50	Open Hole	Unknown
Ronald P and Mary E Napoli	Twinlakes LLC	2017	Twin Lakes Dr	Jarettsville	MD	21084	PO Box	7	Fallston	MD	21047	350	50	Open Hole	Unknown
Kathleen A Roubal	Twinlakes LLC	2019	Twin Lakes Dr	Jarettsville	MD	21084	PO Box	7	Fallston	MD	21047	412	40	Open Hole	Unknown
David A and Rosemarie Robinson	---	2020	Twin Lakes Dr	Jarettsville	MD	21084	---	---	---	---	---	---	---	---	---
Michael and Valerie Meola	Twinlakes LLC	2021	Twin Lakes Dr	Jarettsville	MD	21084	PO Box	7	Fallston	MD	21047	580	55	Open Hole	Unknown
Owen Landis Jr and Katherine S Landis	Twinlakes LLC	2022	Twin Lakes Dr	Jarettsville	MD	21084	PO Box	7	Fallston	MD	21047	550	65	Open Hole	Unknown
James C and Amy C Emge	Twinlakes LLC	2023	Twin Lakes Dr	Jarettsville	MD	21084	PO Box	7	Fallston	MD	21047	700	64	Open Hole	Unknown

**APPENDIX H**  
Waste Documentation

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air Station
Address 929 Hoods Mill Road Address 2942 Charles Street
Woodbine, MD 21797 Fallston, MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55-1697

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

ID 242 GROSS 37.94 T TARE 13.65 GROSS RECALLED NET 24.29 TARE LOG 5 03/23/2018 NET 09:53AM TONNAGE

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.

Chris Johnson Generator Authorized Agent Name Signature Shipment Date 3-23-18

TRANSPORTER

Transporter Name TAT Trucking Driver Name (Print) Patti Dille
Address Bear, DE Vehicle License No. / State / EPA No. CL115739 DE
Truck Number 242

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.

Driver Signature Shipment Date 3-23-18 Driver Signature Delivery Date 3-23-18

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.

Authorized Agent Signature Garcia Receipt Date 3-23-18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air Station
Address 929 Hoods Mill Road Address 2942 Charles street
Woodbine, MD 21797 Fallston, MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55-1697

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

ID 1013 GROSS 38.45 GROSS TARE 13.71 T RECALLED TARE NET 24.77 T LOG 6 NET 03/23/2018 09:55AM TONNAGE

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.

Chris Johnson Generator Authorized Agent Name Signature Shipment Date 3-23-18

TRANSPORTER

Transporter Name STI TRUCKING Driver Name (Print) DALE HITCHCOCK
Address BEAR DE. Vehicle License No. / State / EPA No. LU115299DE
Truck Number 1013

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.

Driver Signature Shipment Date 3/23/18 Driver Signature Delivery Date 3/23/18

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.

Name of Authorized Agent Signature Garcia Receipt Date 3-23-18

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co. Generator Site/Location Bel Air Station
Address 929 Hoods Mill Road Address 2942 Charles Street
Woodbine, MD 21797 Fallston, MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 155-1697

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

GROSS 39.86 T TARE 12.77 T GROSS NET 27.09 TARE NET TONNAGE 03/23/2018 09:57AM

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.

Chris Johnson Generator Authorized Agent Name Signature Shipment Date 3-23-18

TRANSPORTER

Transporter Name ST Driver Name (Print) RD
Address Bear Vehicle License No. / State / EPA No. CL11054
Truck Number 254

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.
RD 3 23 18 RD 3 23 18
Driver Signature Shipment Date Driver Signature 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.
Name of Authorized Agent Signature Receipt Date 3 23 18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air Station
Address 929 Hoods Mill Road Address 2942 Charles Street
Woodbine, MD 21797 Falkston, MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55-1697

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

ID 440 GROSS 32.75 T TARE 13.28 GROSS RECALLED NET 19.47 TARE LOG 8 03/23/2018 NET 10:29AM TONNAGE

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.

Chris Johnson Generator Authorized Agent Name Signature 3-23-18 Shipment Date

TRANSPORTER

Transporter Name TAT / Genelt Trading Driver Name (Print) DAVID PAUL
Address BEAR, DE Vehicle License No. / State / EPA No. CL118V88DE
Truck Number 95 660

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.

Driver Signature 3/23/18 Shipment Date

Driver Signature 3/23/18 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 Signature 3-23-18 Receipt Date

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air Station
Address 929 Hoods Mill Road Address 2942 Charles Street
Woodbine, MD 21797 Fallston, MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55-1697

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

ID 747 GROSS 30.75 TARE 13.08 NET 17.67 LOG 9 03/23/2018 10:31AM TONNAGE

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.

Chris Johnson Generator Authorized Agent Name Signature 3-23-18 Shipment Date

TRANSPORTER

Transporter Name TAT U.I. TRUCKING LLC Driver Name (Print) TAN T901
Address MIDDLE - TOWN Vehicle License No. / State / EPA No. C6119087 DE
Truck Number U.I.-C 747

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.

Driver Signature 3-23-18 Shipment Date Driver Signature 3-23-18 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.

Name of Authorized Agent Garcia Signature 3-23-18 Receipt Date

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air Station
Address 929 Hoods Mill Road Address 2942 Charles Street
Woodbine, MD 21797 Fallston, MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55-1697

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

ID 1013 GROSS 39.02 T TARE 13.71 TARE RECALLED NET 25.31 NET LOG 14 03/23/2018 TONNAGE 01:32PM

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.

Chris Johnson Generator Authorized Agent Name Signature Shipment Date 3-23-18

TRANSPORTER

Transporter Name SFT TRUCKING Driver Name (Print) DALE MITCHELL
Address BEAR, DE Vehicle License No. / State / EPA No. LL15299DE
Truck Number 1013

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.

Driver Signature Shipment Date 3/23/18 Driver Signature Delivery Date 3/23/18

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. J. Garcia Receipt Date 03/23/18

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air Station
Address 929 Hoods Mill Road Address 2942 Charles Street
Woodbine, MD 21797 Fallston, MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55-1697

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

ID 242 GROSS 36.60 T TARE 13.65 TARE RECALLED NET 22.95 NET LOG 15 05/23/2018 TONNAGE 01:35PM

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.

Chris Johnson Generator Authorized Agent Name Signature Shipment Date 3-23-18

TRANSPORTER

Transporter Name TAT Trucking Driver Name (Print) Patti Dille
Address Bear, DE Vehicle License No. / State / EPA No. CU15739 DE
Truck Number 242

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.

Driver Signature Shipment Date 3-23-18 Driver Signature Delivery Date 3-23-18

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.

Name of Authorized Agent Signature Receipt Date 03/23/18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air Station
Address 929 Hoods Mill Road Address 2942 Charles Street
Woodbine, MD 21797 Fallston, MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 254 GROSS 42.40 T TARE 12.77 TARE NET 29.63 NET LOG 16 03/23/2018 01:38PM TONNAGE

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.

Chris Johnson Generator Authorized Agent Name Signature 3-23-18 Shipment Date

TRANSPORTER

Transporter Name ST Driver Name (Print) RD
Address Bear Vehicle License No. / State / EPA No. CL11054
Truck Number 254

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.

RD 3 23 18 Driver Signature Shipment Date RD 3 23 18 Driver Signature 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.

J. Garcia Name of Authorized Agent Signature 03/27/18 Receipt Date

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air Station
Address 929 Hoods Mill Road Address 2942 Charles Street
Woodbine, MD 21797 Fallston, MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 35-1697

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

ID 660 GROSS 37.64 TARE 13.28 NET 24.36 LOG 19 03/23/2018 03:21PM TONNAGE

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.

Chris Johnson Generator Authorized Agent Name Signature Shipment Date 3-23-18

TRANSPORTER

Transporter Name TAT / Gerald Trividy Driver Name (Print) DAVID PAUL
Address BEAD, DE Vehicle License No. / State / EPA No. CL118488DE
Truck Number 95 660

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.

Driver Signature Shipment Date 3-23-18 Driver Signature Delivery Date 3/23/18

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.

J. Garcia Name of Authorized Agent Signature Receipt Date 03/23/18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 2942 Charles St.
Woodbine, MD, 21797 Fallston MD 21047
Phone No. 732 254 6429 Phone No. 732 254 6429

Approval Number 55-1697

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

ID 747 GROSS 37.05 T TARE 13.08 TARE RECALLED NET 23.95 NET LOG 20 03/23/2018 03:23PM TONNAGE

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.

Generator Authorized Agent Name Made Harris Signature [Signature] Shipment Date 3-23-18

TRANSPORTER

Transporter Name TAT - VI TRUCKING LLC Driver Name (Print) JAN TSOI
Address MIDDLE TOWN Vehicle License No. / State / EPA No. CL 119087 DE
Truck Number V.I. 0

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.

Driver Signature [Signature] Shipment Date [Signature] 3-23-18 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.

Name of Authorized Agent J. Garcia Signature Receipt Date 03/23/18

Small text at the bottom of the page: Yellow, Generator, Pink, Baker, Goldenrod, Contractor, Blue, Trucking Co.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air station
Address 929 Hoods Mill Road Address 2942 Charles Street
Woodbine, MD 21797 Fallston, MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55-1697

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

ID 254 GROSS 33.55 T TARE 12.77 RECALLED NET 20.78 LOG 2 03/26/2018 09:42AM TONNAGE

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.

Chris Johnson Generator Authorized Agent Name Signature Shipment Date 3-26-18

TRANSPORTER

Transporter Name ST Bear Driver Name (Print) RD Address Bear Vehicle License No. / State / EPA No. CL11054 Truck Number 254

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.

RD 3 26 18 Driver Signature Shipment Date RD 3 26 18 Driver Signature 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 Signature 3 26 18 Receipt Date

Last load  
22 Ton Min

CS

SOIL SAFE, INC.

Log Number

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air Station  
Address 929 Hoods Mill Road Address 2942 Charles Street  
Woodbine, MD 21797 Fallston, MD 21047  
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number  
55-  
1697

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

ID 254  
GROSS 42.34  
TARE 12.77  
RECALLED TARE  
NET 29.57  
LOG 18 NET  
03/26/2018  
01:29PM TONNAGE

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.

Chris Johnson [Signature] 3-26-18  
Generator Authorized Agent Name Signature Shipment Date

TRANSPORTER

Transporter Name ST Driver Name (Print) RD  
Address Bear Vehicle License No. / State / EPA No. CL11054  
Truck Number 254

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.

RD 3 26 18 RD 3 26 18  
Driver Signature Shipment Date Driver Signature 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 3 26 18  
Name of Authorized Agent Signature Receipt Date

3064

Log Number

# SOIL SAFE, INC.

## NON-HAZARDOUS MATERIAL MANIFEST

### GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Bel Air Station  
 Address 929 Hoods Mill Road Address 2942 Charles Street  
Woodbine, MD 21797 Fallston, MD 21047  
 Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number  
55-1697

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

ID .0207  
 GROSS 33.50 GROSS  
 RECALLED  
 TARE 16.86 TARE  
 NET 16.70 T  
 LOG 7 NET  
 03/29/2018  
 12:57PM TONNAGE

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.

Chris Johnson Signature [Signature] Shipment Date 3-29-18  
 Generator Authorized Agent Name

### TRANSPORTER

Transporter Name AZZ TRANSPORT Driver Name (Print) [Signature]  
 Address 250 Kresson St Asbury Park NJ 07921 Vehicle License No. / State / EPA No. 358 E09  
03 24 2511 Truck Number 207

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.

[Signature] Shipment Date 3-29-18 Driver Signature [Signature] Delivery Date 3-29-18  
 Driver Signature

### 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.

Name of Authorized Agent [Signature] Signature Garcia Receipt Date 3-29-18

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Woodbine MD, 21797 Address 2942 Charles St. Fallston MD 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 254 GROSS 37.81 TARE 12.77 RECALLED NET 25.04 LOG 2 04/11/2018 09:30AM TONNAGE

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.

Generator Authorized Agent Name Mark Harold Signature [Signature] Shipment Date 4/11/18

TRANSPORTER

Transporter Name S T Driver Name (Print) RD
Address Bear Vehicle License No. / State / EPA No. CL11054
Truck Number 254

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.

Driver Signature [Signature] Shipment Date 4 11 18 Driver Signature [Signature] Delivery Date 4 11 18

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.

Name of Authorized Agent [Signature] Signature [Signature] Receipt Date 4 11 18

# NON-HAZARDOUS MATERIAL MANIFEST

## GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Belair Station  
 Address 929 Hoods Mill Rd Address 2942 Charles St.  
Woodbine Md 21797 Fabton, Md 21047  
 Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number  
 SS  
 1697

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

ID 455	
GROSS	36.00 T
TARE	13.50 T
RECALLED	
NET	22.50 T
LOG 5	
04/11/2018	
09:46AM	
	<b>TONNAGE</b>

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.

Generator Authorized Agent Name \_\_\_\_\_ Signature See attached 4-11-18 Shipment Date

## TRANSPORTER

Transporter Name SHT TRUCKING Driver Name (Print) ANNETTE SACHETA  
 Address BBAA DB Vehicle License No. / State / EPA No. 115704 DE  
 Truck Number 1170 TMC #79

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.

Driver Signature \_\_\_\_\_ Shipment Date 4-11-18 Driver Signature \_\_\_\_\_ Delivery Date 4-11-18

## 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.

Name of Authorized Agent \_\_\_\_\_ Signature J Garcia Receipt Date 4/11/18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Woodbine, Md 21797 Address 2942 Charles St Fallston Md. 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 667 GROSS 34.17 T TARE 14.19 GROSS RECALLED NET 19.98 TARE LOG 7 NET 04/11/2018 10:36AM NET TONNAGE

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.

Generator Authorized Agent Name Mark Harold Signature Shipment Date 4/11/18

TRANSPORTER

Transporter Name TAT / Gerald Trucking Driver Name (Print) DAVID PAUL
Address BEAD, DE Vehicle License No. / State / EPA No. CL117888DC
Truck Number 54 6

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.

Driver Signature Shipment Date 4/11/18 Driver Signature Delivery Date 4/11/18

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.

Name of Authorized Agent Garcia Signature Receipt Date 4/11/18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 2942 Charles St.
Woodbine, MD, 21797 Fallston MD, 21047
Phone No. 732-254-6424 Phone No. 732-254-6424

Approval Number 55 1697

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

ID 660 GROSS 33.90 T GROSS TARE 13.28 T RECALLED TARE NET 8 20.62 T LOG 8 NET 04/11/2018 10:39AM TONNAGE

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.

Generator Authorized Agent Name Mark Harold Signature [Signature] Shipment Date 4/11/18

TRANSPORTER

Transporter Name JAY GERARD Driver Name (Print) GERARD, J 18488
Address BEAR DE Vehicle License No. / State / EPA No. CL 88
Truck Number GS

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.

Driver Signature [Signature] Shipment Date Driver Signature [Signature] Delivery Date 4-11-18

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.

Name of Authorized Agent Signature [Signature] Receipt Date 4 11 18

SOIL SAFE, INC.

Log Number  
2

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Generator Site/Location Belair Station  
Address 929 Hoods Mill Rd. Address 3942 Charles St.  
Woodbine, Md 21797 Fallston, Md. 21047  
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number  
35  
1697

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

10 254  
GROSS 35.50 T  
TARE 12.77 GROSS  
RECALLED  
NET 22.73 TARE  
LOG 14  
04/11/2018 NET  
01:02PM  
TONNAGE

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.

Mark Harrod Signature 4/11/18 Shipment Date  
Generator Authorized Agent Name

TRANSPORTER

Transporter Name ST Driver Name (Print) RD  
Address Bear Vehicle License No. / State / EPA No. CL11054  
Truck Number 254

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.

RD 4 11 18 RD 4 11 18  
Driver Signature Shipment Date Driver Signature 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 4 11 18  
Name of Authorized Agent Signature Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Woodbine Md. 21797 Address 2942 Charles St Fallston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 435 GROSS 35.48 T TARE 13.50 T RECALLED TARE NET 21.98 T LOG 15 NET 04/11/2018 01:19PM TONNAGE

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.

Generator Authorized Agent Name [Signature] Signature [Signature] Shipment Date 4/11/18

TRANSPORTER

Transporter Name S H T TRUCKING Driver Name (Print) A NORTON SACHS
Address BEAN DB Vehicle License No. / State / EPA No. 115704 DB
Truck Number 1170 TRK # 79

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.

Driver Signature [Signature] Shipment Date 4-11-18 Driver Signature [Signature] Delivery Date 4-11-18

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.

Name of Authorized Agent [Signature] Signature Garcia Receipt Date 4 11 18

SOIL SAFE, INC.

Log Number

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonja Pipeline Generator Site/Location Belair Station
Address 929 Hoods Mill Rd. Address 2942 Charles St.
Woodbine, Md 21797 Fallston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 667 GROSS 35.70 TARE 14.19 NET 21.51 LOG 18 04/11/2018 02:57PM TONNAGE

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.

Mark Harold Signature 4/11/18 Shipment Date

TRANSPORTER

Transporter Name TAT / Gerald Trucking Driver Name (Print) DAVID PAUL
Address BEAD, DE Vehicle License No. / State / EPA No. GIL 117882DE
DAVID PAUL Truck Number 94 667

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.

Driver Signature 4/11/18 Shipment Date Driver Signature 4/11/18 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 Signature 4/11/18 Receipt Date

SOIL SAFE, INC.

Log Number

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 3942 Charles St.
Woodbine, Md. 21797 Fallston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 53 1697

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

ID 660 GROSS 33.19 T TARE 13.28 T RECALLED NET 19.90 T LOG 19 NET 04/11/2018 02:59PM TONNAGE

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.

Generator Authorized Agent Name Mark Horrod Signature [Signature] Shipment Date 4/11/18

TRANSPORTER

Transporter Name TAT / GERALD Driver Name (Print) GERALD
Address BEAR DE Vehicle License No. / State / EPA No. CUI104K
Truck Number 35

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.

Driver Signature [Signature] Shipment Date [Date] Driver Signature [Signature] Delivery Date 4/11/18

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.

Name of Authorized Agent J. Garcia Signature [Signature] Receipt Date 4/11/18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 2442 Charles ST
Woodbine, Md, 21797 Fallston, Md
Phone No. 732-259-6429 Phone No. 732-259-6429 dc.

Approval Number 53 1697

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

Table with columns: Description, Value, Unit. Rows include GROSS (35.22 T), TARE (13.50), RECALLED (13.50), NET (21.72), LOG (4), DATE (04/25/2018), TIME (09:14AM), and NET TONNAGE.

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 4/25/18

TRANSPORTER

Transporter Name SET TRUCKING Driver Name (Print) ANASTAS SACHOTA
Address BEAR DB Vehicle License No. / State / EPA No. 115704 DE
Truck Number #79

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.

Driver Signature Shipment Date 4-25-18 Driver Signature Delivery Date 4-25-18

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.

Name of Authorized Agent Signature Garcia Receipt Date 4-25-18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Generator Site/Location Belair Station
Address 929 Hoeds Mill Rd Woodbine Md. 21797 Address 2947 Charles ST Falls ton, Md. 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 254 GROSS 39.95 T TARE 12.77 T RECALLED NET 4 S 27.22 T LOG 4 S 04/25/2018 09:18AM NET TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 4/25/18

TRANSPORTER

Transporter Name ST Driver Name (Print) RD Address Bear Vehicle License No. / State / EPA No. CL11054 Truck Number 254

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.

RD 4 25 18 Driver Signature Shipment Date RD 4 25 18 Driver Signature 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 Signature Receipt Date 4 25 18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 2942 Charles St.
Woodbine, Md 21797 Fallston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 242 GROSS 37.95 T TARE 13.65 GROSS RECALLED NET 24.28 TARE LOG 6 NET 04/25/2018 NET 09:27AM TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 4/25/18

TRANSPORTER

Transporter Name TAT Trucking Driver Name (Print) Patti Dille
Address Bear, DE Vehicle License No. / State / EPA No. CH15739 DE
Truck Number 242

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.

Driver Signature Shipment Date 4-25-18 Driver Signature Delivery Date 4-25-18

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.

Name of Authorized Agent Signature Receipt Date 4 25 18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 2942 Charles St.
Woodbine, Md 21797 Fallston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1097

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

ID 1013 GROSS 37.11 TARE 13.71 RECALLED NET 23.40 LOG 7 04/25/2018 09:38AM TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 4/25/18

TRANSPORTER

Transporter Name S&T TRUCKING Driver Name (Print) DALL HITCHCOCK
Address BEAR, DE Vehicle License No. / State / EPA No. CL115299DE
Truck Number 1013

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.

Driver Signature Shipment Date 4/25/18 Driver Signature Delivery Date 4/25/18

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 Signature 4/25/18 Receipt Date

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 2942 Charles ST
Woodbine Md. 21797 Fallston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

GROSS 37.54 T TARE 13.50 GROSS RECALLED NET 24.04 TARE LOG 24 04/25/2018 NET 12:25PM TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Signature Shipment Date 4/25/18

TRANSPORTER

Transporter Name SFT Transport Driver Name (Print) J J BRY SACHS JR
Address BEAL DR Vehicle License No. / State / EPA No. 115704DB
Truck Number 1170 #79

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.

Driver Signature Shipment Date 4-25-18 Driver Signature Delivery Date 4-25-18

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.

Name of Authorized Agent Signature Garcia Receipt Date 4 25 18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline
Address 929 Hoods Mill Rd
Woodbine, Md 21797
Phone No. 732-259-6429

Generator Site/Location Belair Station
Address 2942 Charles St.
Fallston, Md, 21047
Phone No. 732-259-6429

Approval Number 35 1097

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

Table with 2 columns: Description, Value. Rows include GROSS (38.44 T), TARE (12.77), RECALLED, NET LOG 25 (25.67 TARE), 04/25/2018 12:39PM, NET TONNAGE.

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.

Richard Davis Generator Authorized Agent Name
Signature Signature
Shipment Date 4/25/18

TRANSPORTER

Transporter Name ST Driver Name (Print) RD
Address Bear Vehicle License No. / State / EPA No. CL11054
Truck Number 254

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.

RD 4 25 18 Driver Signature Shipment Date
RD 4 25 18 Driver Signature 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
Signature Signature
Receipt Date 4 25 18

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline, Generator Site/Location Belair Station
Address 929 Hoods Mill Rd, Woodbine, Md. 21797, Address 2942 Charles St., Fallston, Md 21047
Phone No. 732-259-6429, Phone No. 732-259-6429

Approval Number 35 1697

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

Table with 2 columns: Description and Tonnage. Rows include ID 242, GROSS 38.48, TARE 13.65, RECALLED, NET 24.83, LOG 26, DATE 04/25/2018, TIME 12:55PM, and TONNAGE.

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.

Richard Davis, Signature, 4/25/18, Shipment Date

TRANSPORTER

Transporter Name TAT Trucking, Driver Name (Print) Patti Diller, Address Bear, DE, Vehicle License No. / State / EPA No. CL15739 DE, Truck Number 242

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.

Driver Signature, Shipment Date 4-25-18, Driver Signature, Delivery Date 4-25-18

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.

Name of Authorized Agent, Signature Garcia, Receipt Date 4 25 18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 2942 Charles ST
Woodbine, Md, 21797 Fallston, Md, 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 53 1697

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

ID 1013 GROSS 37.12 GROSS TARE 13.71 T RECALLED NET 27 23.41 T LOG 04/25/2018 01:09PM NET TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 4/25/18

TRANSPORTER

Transporter Name SFF Trucking Driver Name (Print) DALE HITCHCOCK
Address BEAR, DE Vehicle License No. / State / EPA No. CE115292 DE
Truck Number 1013

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.

Driver Signature Shipment Date 4/25/18 Driver Signature Delivery Date 4/25/18

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.

J. Garcia Name of Authorized Agent Signature Receipt Date 4/25/18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co. Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Woodbine, Md 21797 Address 2942 Charles St. Fallston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 242 GROSS 34.9 GROSS TARE 13.65 T RECALLED TARE NET 21.32 T LOG 1 NET 05/03/2018 09:42AM TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 5/3/18

TRANSPORTER

Transporter Name TAT Trucking Driver Name (Print) Patti Dille Address Bear, De Vehicle License No. / State / EPA No. CL115739 DE Truck Number 242

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.

Driver Signature Shipment Date 5-3-18 Driver Signature Delivery Date 5-3-18

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.

Name of Authorized Agent Signature Receipt Date 5.3.18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 2942 Charles St.
Woodbine, Md 21797 Fallston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 254 GROSS 36.58 T TARE 12.77 GROSS RECALLED NET 23.81 TARE NET LOG 2 05/03/2018 09:47AM NET TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 5/3/18

TRANSPORTER

Transporter Name JT Driver Name (Print) RD
Address Bear Vehicle License No. / State / EPA No. CL11054
Truck Number 254

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.

RD 5 3 18 Driver Signature Shipment Date RD 5 3 18 Driver Signature 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 Signature 5 3 18 Receipt Date

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Woodbine, Md, 21797 Address 2942 Charles ST Fallston, Md 21047
Phone No. 732-259-6429 Phone No.

Approval Number 55 1697

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

ID 667 GROSS 32.76 T TARE 14.19 T RECALLED NET 7 18.57 T LOG 05/03/2018 10:51AM NET TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 5/3/18

TRANSPORTER

Transporter Name TAT / Gerald Trading Driver Name (Print) DAVID PAUL
Address BEAR, DE Vehicle License No. / State / EPA No. CL117888DE
Truck Number 54 667

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.

Driver Signature Shipment Date 5/3/18 Driver Signature Delivery Date 5/3/18

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.

Name of Authorized Agent Signature Receipt Date 5.3.18

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 2942 Charles St.
Woodbine, Md 21797 Fallsston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 53 1697

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

ID 597 GROSS 37.73 GROSS TARE 12.72 T RECALLED TARE NET 8 25.01 T LOG 05/03/2018 10:55AM NET TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 5/3/18

TRANSPORTER

Transporter Name Andrews Trucking Driver Name (Print) Andrew DeSilva
Address Bear De Vehicle License No. / State / EPA No. 118760
Truck Number A1

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.

Driver Signature Shipment Date 5-3-18 Driver Signature Delivery Date 5-3-18

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.

Name of Authorized Agent Signature Receipt Date 5-3-18

Log Number

# SOIL SAFE, INC.

## NON-HAZARDOUS MATERIAL MANIFEST

### GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Belair Station  
 Address 929 Hoods Mill Rd Address 2942 Charles ST  
Woodbine, Md 21797 Fallston Md, 21047  
 Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number  
53  
1097

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

ID	.079	
GROSS	35.53	GROSS
RECALLED		
TARE	13.06	TARE
NET	22.47	NET
LOG	10	
	05/03/2018	
	11:03AM	
		TONNAGE

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.

Richard Davis [Signature] 5/3/18  
 Generator Authorized Agent Name Signature Shipment Date

### TRANSPORTER

Transporter Name TAT/Carry's Trucking Driver Name (Print) Gregory 7501  
 Address 13 USA 124 Vehicle License No. / State / EPA No. CL19220  
 Truck Number 6579

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.

[Signature] 5.3.18 [Signature] 5.3.18  
 Driver Signature Shipment Date Driver Signature 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 5.3.18  
 Name of Authorized Agent Signature Receipt Date

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co. Generator Site/Location Belair Station
Address 929 Hood's Mill Rd Woodbine, Md. 21797 Address 2942 Charles ST Fallston, Md. 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 53 1697

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

ID 242 GROSS 38.77 TARE 13.65 RECALLED NET 25.12 LOG 1 05/16/2018 09:15AM TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 5/16/18

TRANSPORTER

Transporter Name TAT Trucking Driver Name (Print) Patti Dille Address Bear DE Vehicle License No. / State / EPA No. CL115739 DE Truck Number 242

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.

Driver Signature Shipment Date 5-16-18 Driver Signature Delivery Date 5-16-18

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.

Name of Authorized Agent Signature d Garcia Receipt Date 5 16 18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co. Generator Site/Location Belair Station
Address 929 Hoods Mill Rd. Address 2942 Charles St.
Woodbine, Md. 21797 Fallston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 435 GROSS 40.22 GROSS TARE 13.50 T RECALLED TARE NET 26.72 T LOG 2 NET 05/16/2018 09:34AM TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 5/16/18

TRANSPORTER

Transporter Name S & T TRUCKING Driver Name (Print) ANNETTO SACHETAN
Address BEAN DR Vehicle License No. / State / EPA No. 115704 1170
Truck Number #79

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.

Driver Signature Shipment Date 5-16-18 Driver Signature Delivery Date 5-16-18

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.

Name of Authorized Agent Signature Receipt Date Garcia 5/16/18

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Belair Station
Address 929 Hoods Mill Rd. Address 2942 Charles ST.
Woodbine, Md. 21797 Fallston, Md 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 254 GROSS 36.4 GROSS TARE 12.77 T RECALLED TARE NET 23.63 T LOG 3 NET 05/16/2018 09:55AM TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 5/16/18

TRANSPORTER

Transporter Name ST Driver Name (Print) RD
Address Bear Vehicle License No. / State / EPA No. CL11054
Truck Number 254

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.

RD Driver Signature 5/16/18 Shipment Date RD Driver Signature 5/16/18 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.

Name of Authorized Agent Signature Receipt Date 5-16-18

SOIL SAFE, INC.

Log Number

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Address 2942 Charles St.
Woodbine, Md, 21797 Fallston, Md. 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 55 1697

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

ID 242 GROSS 35.62 GROSS TARE 13.65 T RECALLED TARE NET 8 21.97 T LOG 05/16/2018 12:48PM NET TONNAGE

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.

Generator Authorized Agent Name Richard Davis Signature 5/16/18 Shipment Date

TRANSPORTER

Transporter Name TAT Trucking Driver Name (Print) Patti Dille
Address Bear, DE Vehicle License No. / State / EPA No. CL115739 DE
Truck Number 242

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.

Driver Signature 5-16-18 Shipment Date Driver Signature 5-16-18 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.

Name of Authorized Agent Signature Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

SOIL SAFE, INC.

Log Number

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Colonial Pipeline Co. Generator Site/Location Belair Station
Address 929 Hoods Mill Rd Woodbine, Md 21797 Address 2942 Charles St. Fallston, Md. 21047
Phone No. 732-259-6429 Phone No. 732-259-6429

Approval Number 35 1697

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

ID 435 GROSS 39.24 T TARE 13.50 GROSS RECALLED NET 25.74 TARE LOG 12 NET 05/16/2018 NET 01:11PM TONNAGE

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.

Richard Davis Generator Authorized Agent Name Signature Shipment Date 5/16/18

TRANSPORTER

Transporter Name SUT TRUCKING Driver Name (Print) ANASTAS SACHETA Address BEAR DR Vehicle License No. / State / EPA No. 115704 170 Truck Number 1179

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.

Driver Signature Shipment Date 5-16-18 Driver Signature Delivery Date 5-16-18

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 Signature Receipt Date 5-16-18

# NON-HAZARDOUS MATERIAL MANIFEST

## GENERATOR

Generator Name Colonial Pipeline Co. Generator Site/Location Belair Station  
 Address 929 Hoods Mill Rd Address 2942 Charles ST.  
Woodbine, Md 21797 Fallston, Md 21047  
 Phone No. 732-259-6429 Phone No. 732-259-6429

Approval  
Number  
53  
1697

**Description of Material**

Non-Regulated Petroleum  
Contaminated Soil  
  
Non DOT/RCRA Regulated

ID	254	
GROSS	38.42	GROSS
TARE	12.77	
RECALLED		
NET	25.65	TARE
LOG	IS	NET
	05/16/2018	
	01:36PM	TONNAGE

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.

Richard Davis Generator Authorized Agent Name      [Signature] Signature      5/16/18 Shipment Date

## TRANSPORTER

Transporter Name ST Driver Name (Print) RD  
 Address Bear Vehicle License No. / State / EPA No. CL11054  
 Truck Number 254

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.

RD Driver Signature      5 16 18 Shipment Date      RD Driver Signature      5 16 18 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      [Signature] Signature      5 16 18 Receipt Date

# Tonnages for S5-1697 by Date, Log Number

From 1/1/2018

To 5/17/2018

Date	Log #	Truck Number	Truck Company	City	Batch#	Net
<b>S5-1697</b>						
<b>3/23/2018</b>						
3/23/2018	5	242	TAT		9000	24.29
3/23/2018	6	1013	TAT		9000	24.77
3/23/2018	7	254	TAT		9000	27.09
3/23/2018	8	660	TAT		9000	19.47
3/23/2018	9	747	TAT		9000	17.67
3/23/2018	14	1013	TAT		9000	25.31
3/23/2018	15	242	TAT		9000	22.95
3/23/2018	16	254	TAT		9000	29.63
3/23/2018	19	660	TAT		9000	24.36
3/23/2018	20	747	TAT		9000	23.95
Total volume for Date = 3/23/2018 (10 detail records)		239.49	Average Weight:		23.949	
<b>3/26/2018</b>						
3/26/2018	2	254	TAT		9000	20.78
3/26/2018	18	254	TAT		9000	29.57
Total volume for Date = 3/26/2018 (2 detail records)		50.35	Average Weight:		25.175	
<b>3/29/2018</b>						
3/29/2018	7	207	A2Z		9000	16.70
Total volume for Date = 3/29/2018 (1 detail record)		16.7	Average Weight:		16.7	
<b>4/11/2018</b>						
4/11/2018	2	254	TAT		2514	25.04
4/11/2018	5	435	TAT		2514	22.50
4/11/2018	7	667	TAT		2514	19.98
4/11/2018	8	660	TAT		2514	20.62
4/11/2018	14	254	TAT		2514	22.73
4/11/2018	15	435	TAT		2514	21.98
4/11/2018	18	667	TAT		2514	21.51
4/11/2018	19	660	TAT		2514	19.90
Total volume for Date = 4/11/2018 (8 detail records)		174.26	Average Weight:		21.7825	
<b>4/25/2018</b>						
4/25/2018	4	435	TAT		2516	21.72
4/25/2018	5	254	TAT		2516	27.22
4/25/2018	6	242	TAT		2516	24.28
4/25/2018	7	1013	TAT		2516	23.40
4/25/2018	24	435	TAT		2516	24.04
4/25/2018	25	254	TAT		2516	25.67
4/25/2018	26	242	TAT		2516	24.83
4/25/2018	27	1013	TAT		2516	23.41
Total volume for Date = 4/25/2018 (8 detail records)		194.57	Average Weight:		24.32125	
<b>5/3/2018</b>						

Date	Log #	Truck Number	Truck Company	City	Batch#	Net
5/3/2018	1	242	TAT		2516	21.32
5/3/2018	2	254	TAT		2516	23.81
5/3/2018	7	667	TAT		2517	18.57
5/3/2018	8	597	TAT		2517	25.01
5/3/2018	10	79	TAT		2517	22.47
Total volume for Date = 5/3/2018 (5 detail records)				111.18	Average Weight:	22.236

5/16/2018

5/16/2018	1	242	TAT		2519	25.12
5/16/2018	2	435	TAT		2519	26.72
5/16/2018	3	254	TAT		2519	23.63
5/16/2018	8	242	TAT		2519	21.97
5/16/2018	12	435	TAT		2519	25.74
5/16/2018	15	254	TAT		2519	25.65
Total volume for Date = 5/16/2018 (6 detail records)				148.83	Average Weight:	24.805

Total Volume for Approval Number' = S5-1697 (40 detail records)

935.38

Total Trucks: 40

Grand Total

935.38
--------

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: **N/A**  
 2. Page 1 of: **1**  
 3. Emergency Response Phone: **(800) 966-9282**  
 4. Waste Tracking Number: **NHWM124445**

5. Generator's Name and Mailing Address: **Colonial Pipeline Company, 929 Hoods Mill Road, Woodbine, MD 21797**  
 Generator's Site Address (if different than mailing address): **Falston, MD - Bel Air Station, 2942 Charles Street, Fallston, MD 21047**

6. Transporter 1 Company Name: **MILLER ENVIRONMENTAL**  
 7. Transporter 2 Company Name: **MILLER ENVIRONMENTAL**  
 U.S. EPA ID Number: **NYD986908085**

8. Designated Facility Name and Site Address: **Triumvirate Environmental - Baltimore, LLC, 1500 Carbon Avenue, Baltimore, MD 21226**  
 Facility's Phone: **(410) 535-3700**  
 U.S. EPA ID Number: **MD D 0 0 3 0 0 2 3 8 4**

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit Wt./Vol.
	No.	Type		
1. <b>UN1203 Gasoline Mixture 3, II (Gasoline, Diesel, Water) 13802-22070A</b>	<b>1</b>	<b>TT</b>	<b>133</b>	<b>G</b>
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information:  
 1 - ( X Tanker ) 13802-22070A    2 -    3 -    4 -

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: **Chris Johnson**  
 Signature: *[Signature]*  
 Month: **3** Day: **16** Year: **18**

15. International Shipments:  Import to U.S.  Export from U.S.  
 Transporter Signature (for exports only): \_\_\_\_\_ Port of entry/exit: \_\_\_\_\_  
 Date leaving U.S.: \_\_\_\_\_

16. Transporter Acknowledgment of Receipt of Materials  
 Transporter 1 Printed/Typed Name: **Harry Reynolds**  
 Signature: *[Signature]*  
 Transporter 2 Printed/Typed Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Month: **03** Day: **16** Year: **18**

17. Discrepancy  
 17a. Discrepancy Indication Space:  Quantity  Type  Residue  Partial Rejection  Full Rejection

17b. Alternate Facility (or Generator): \_\_\_\_\_ Manifest Reference Number: \_\_\_\_\_ U.S. EPA ID Number: \_\_\_\_\_  
 Facility's Phone: \_\_\_\_\_  
 17c. Signature of Alternate Facility (or Generator): \_\_\_\_\_  
 Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a  
 Printed/Typed Name: **M. Aubrey**  
 Signature: *[Signature]*  
 Month: **03** Day: **16** Year: **18**

**PRIVATE**  
**NON-HAZARDOUS**  
**DOCUMENT OF CARGO**

116457

\*\*\*\*\*

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # B18-0059

#1 Truck License Number 2794 R

#2 MEG ID # \_\_\_\_\_

#2 Truck License Number \_\_\_\_\_

\*\*\*\*\*

**IDENTIFICATION**

\*\*\*\*\*

Company name, mailing address and telephone number

Generator: Colonial Pipeline  
Forest Hill, NY 11950

Transporter: **Miller Environmental Group, Inc.**  
 538 Edwards Avenue  
 Calverton, New York 11933

TSDF Treatment Storage or Disposal Facility: Miller Env. Group  
Wardens Lake Road  
Wardens, NY 11958

**WASTE INFORMATION**

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers		Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
	No.	Type			
<u>Non-Hazardous Residual</u>	<u>1</u>	<u>TT</u>	<u>5048</u> <u>gals.</u>		
<u>Impacted water</u>					

\*\*\*\*\*

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

[Signature]  
 Generator's Signature

4-4-18  
 Date

[Signature]  
 Transporter's Signature #1

4-4-18  
 Date

\_\_\_\_\_  
 Transporter's Signature #2

\_\_\_\_\_  
 Date

[Signature]  
 TSDF Signature

04/04/18  
 Date

PRIVATE  
NON-HAZARDOUS  
DOCUMENT OF CARGO

116502

B/B-0059

\*\*\*\*\*

N.Y. State 364 Permit No. 1A-041

#1 MEG ID # 4256/1023

#1 Truck License Number 29597R

#2 MEG ID # \_\_\_\_\_

#2 Truck License Number \_\_\_\_\_

\*\*\*\*\*

IDENTIFICATION

\*\*\*\*\*

Company name, mailing address and telephone number

Generator: Colonial  
324 W Barrett Hwy Rd  
Forest Hill MD 21050

Transporter: **Miller Environmental Group, Inc.**  
538 Edwards Avenue  
Calverton, New York 11933

TSDF Treatment Storage or Disposal Facility: Miller Environmental Services  
1022 LaBelle Rd  
Woodstown, NJ 08098

WASTE INFORMATION

NON-HAZARDOUS WASTE SHIPPING DESCRIPTION	Containers		Total Quantity Gals./Lbs./Yds./Bgs.	NYSDEC Code	TSDF Code
	No.	Type			
<u>Waste from RCRA regulated waste tanks (Municipal contact water)</u>	<u>1</u>	<u>TT</u>	<u>53006 gals</u>		

\*\*\*\*\*

I hereby certify that the above waste description is complete and accurate, and that no component exist in the wastes which render it hazardous as defined by 6 NY CRR Section 371 and 372.

Generator's Signature

Date

4-4-18

Transporter's Signature #1

Date

4/4/18

Transporter's Signature #2

Date

TSDF Signature

Date

04/04/18

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone Y0 651-9183	4. Waste Tracking Number 818-0060
5. Generator's Name and Mailing Address Colonial Pipeline Company 806 W Jarrettsville Rd 21050					
Generator's Phone: 758-259-6421					
6. Transporter 1 Company Name Miller Env Group				U.S. EPA ID Number NYD986908085	
7. Transporter 2 Company Name				U.S. EPA ID Number	
8. Designated Facility Name and Site Address MONARCH ENV SVCS 108 East Lake Road WOODSTOWN NJ 08098				U.S. EPA ID Number NJ0011881174	
Facility's Phone: 800-220-2178					
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
1. NON DCL RCRA Reported Contaminated petroleum/water		No.	Type	3703	
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information					
14. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this assignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's Operator Printed/Typed Name Bob Rip Davis		Signature <i>Bob Rip Davis</i>		Month	Day
				4	12
15. International Shipments		<input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:	
16. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name Joseph Parkan		Signature <i>Joseph Parkan</i>		Month	Day
				07	15
Transporter 2 Printed/Typed Name		Signature		Month	Day
17. Discrepancy					
17a. Discrepancy Indication Space					
<input type="checkbox"/> Quantity		<input type="checkbox"/> Type		<input type="checkbox"/> Residue	
				<input type="checkbox"/> Partial Rejection	
				<input type="checkbox"/> Full Rejection	
17b. Alternate Facility (or Generator)				U.S. EPA ID Number	
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator)				Month	Day
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a					
Printed/Typed Name Robert Ketch		Signature <i>Robert Ketch</i>		Month	Day
				10	15

X

51"

LOAD 1

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BCL335873A

TRANSPORTER:  
1 Environmental Recovery Corporation  
2

US EPA ID Number:  
PAD987286749

Phone:  
(717)393-2627

GENERATOR:  
Colonial Pipeline Company  
2942 Charles Street  
Fallston, MD 21047

US EPA ID Number:  
N/A

Phone:  
(732) 306-2070

FACILITY:  
Triumvirate Environmental - Baltimore, LLC  
1500 Carbon Avenue  
Baltimore, MD 21226

US EPA ID Number:  
MDD083002384

Phone:  
(410) 840-3700

Received:

*Craig Chikmes* *[Signature]* 4-17-18  
(Print Name) (Signature) (Date)

Containers Unit

HM	Description of Articles or Proper Shipping Name	No.	Size	Type	Weight	Wt/Vol.
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker TT	5192	G

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

GENERATOR:

Colonial Pipeline Company

Print Name

Mark Harrod

Signature

*[Signature]*

Date

4-17-18

TRANSPORTER:

1 Environmental Recovery Corporation

Timothy Conner

*[Signature]*

4-17-18

ER #: (800) 966-9282

ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

X

49 Load 2

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873B

<b>TRANSPORTER:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
1 Environmental Recovery Corporation	PAD987268749	(717)393-2627
2		

<b>GENERATOR:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Colonial Pipeline Company 2842 Charles Street Fallston, MD 21047	N/A	(732) 308-2070

<b>FACILITY:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21226	MDD093002394	(410) 678-7700
	Received: <u>Craig Childers</u> <small>(Print Name)</small>	<u>[Signature]</u> <small>(Signature)</small>
		<u>4-17-18</u> <small>(Date)</small>

HM	Description of Articles or Proper Shipping Name	Containers			Weight	Unit
		No.	Size	Type		
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker TT 5024		G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b>	<b>Print Name</b>	<b>Signature</b>	<b>Date</b>
Colonial Pipeline Company	Rip Davis	[Signature]	4/17/18
<b>TRANSPORTER:</b>			
1 Environmental Recovery Corporation	Timothy Green	[Signature]	4/17/18
2			

<b>ER #:</b> (800) 966-9282	<b>Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)</b>
<b>ERIP:</b> Triumvirate Environmental	

X

49" Load 3

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873C

<b>TRANSPORTER:</b> 1 Environmental Recovery Corporation 2	<b>US EPA ID Number:</b> PAD987268749	<b>Phone:</b> (717)393-2627
<b>GENERATOR:</b> Colonial Pipeline Company 2942 Charles Street Fallston, MD 21047	<b>US EPA ID Number:</b> N/A	<b>Phone:</b> (732) 306-2070
<b>FACILITY:</b> Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21228	<b>US EPA ID Number:</b> MDD093002384	<b>Phone:</b> (410) 638-3700
<b>Received:</b> CRAIG CHILDRES <small>(Print Name)</small>		 <small>(Signature)</small>
		4-18-18 <small>(Date)</small>

HM	Description of Articles or Proper Shipping Name	Containers No.	Size	Type	Weight	Unit
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker	5024	G

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b> Colonial Pipeline Company	<b>Print Name</b> Rip Davis	<b>Signature</b> 	<b>Date</b> 4-18-18
<b>TRANSPORTER:</b> 1 Environmental Recovery Corporation 2	<b>Print Name</b> Timothy Green	<b>Signature</b> 	<b>Date</b> 4/18/18

ER #: (800) 966-9282  
 ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

X

50" Load 4

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873D

TRANSPORTER:  
1 Environmental Recovery Corporation  
2

US EPA ID Number:  
PAD987266749

Phone:  
(717) 393-2627

GENERATOR:  
Colonial Pipeline Company  
2942 Charles Street  
Fallston, MD 21047

US EPA ID Number:  
N/A

Phone:  
(732) 306-2070

FACILITY:  
Triumvirate Environmental - Baltimore, LLC  
1500 Carbon Avenue  
Baltimore, MD 21226

US EPA ID Number:  
MDD093002384

Phone:  
(410) 536-3700

Received: CRAIG CHONES [Signature] 4/19/18  
(Print Name) (Signature) (Date)

HM	Description of Articles or Proper Shipping Name	Containers			Unit	
		No.	Size	Type	Weight	Wt/Vol.
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker TT	5110	G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

GENERATOR: Colonial Pipeline Company  
 Print Name: Rip Davis Signature: [Signature] Date: 4/19/18

TRANSPORTER: Environmental Recovery Corporation  
 Print Name: Timothy Green Signature: [Signature] Date: 4/19/18

ER #: (800) 966-9282  
ERIP: Triumvirate Environmental  
Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.60 f)

91" Load 5

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873E

<b>TRANSPORTER:</b> 1 <u>Triumvirate Environmental</u> 2 <u>PWD</u>		<b>US EPA ID Number:</b> MAC300016672	<b>Phone:</b> 410.636.3700
<b>GENERATOR:</b> Colonis Pipeline Company 2942 Charles Street Fallston, MD 21047		<b>US EPA ID Number:</b> N/A	<b>Phone:</b> (732) 306-2070
<b>FACILITY:</b> <u>Triumvirate Environmental</u> 1500 Carbon Ave Baltimore, MD 21226 <u>PWD</u>		<b>US EPA ID Number:</b> MDD093002384	<b>Phone:</b> 410.636.3700
		<b>Received:</b> <u>CRAIG CHILONES</u> <small>(Print Name)</small>	<b>Date:</b> <u>4-19-18</u> <small>(Date)</small>

HM	Description of Articles or Proper Shipping Name	Containers			Unit	
		No.	Size	Type	Weight	Wt/Vol.
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker	TT	300g G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b> Colonis Pipeline Company	<b>Print Name</b> <u>Rep Davis</u>	<b>Signature</b> <u>[Signature]</u>	<b>Date</b> <u>4/19/18</u>
<b>TRANSPORTER:</b> 1 <u>Triumvirate Environmental</u> 2 <u>PWD</u>	<b>Print Name</b> <u>Timothy Green</u>	<b>Signature</b> <u>[Signature]</u>	<b>Date</b> <u>4/19/18</u>

ER #: (800) 966-9282  
 ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873G

TRANSPORTER: US EPA ID Number: Phone:  
1 Triumvirate Environmental, Inc. - Baltimore MDD0985397124 (410) 636-3700  
2

GENERATOR: US EPA ID Number: Phone:  
Colonial Pipeline Company N/A (732) 308-2070  
2942 Charles Street  
Fallston, MD 21047

FACILITY: US EPA ID Number: Phone:  
Triumvirate Environmental - Baltimore, LLC MDD093002384 (410) 636-3700  
1500 Carbon Avenue  
Baltimore, MD 21226  
Received: [Signature] 4-26-18  
(Print Name) (Signature) (Date)

HM	Description of Articles or Proper Shipping Name	Containers			Unit	
		No.	Size	Type	Weight	Wt/Vol.
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A <i>SR 0" B 75" A T-6012</i>	001	x	Tanker	TT	4835 G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

GENERATOR: Colonial Pipeline Company  
TRANSPORTER: 1 Triumvirate Environmental, Inc. - Baltimore  
2  
Print Name: David N Turner Signature: [Signature] Date: 4/25/18  
R. Kawecki R. Kawecki 4/25/18

ER #: (800) 966-9282  
ERIP: Triumvirate Environmental  
Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

X

49"

LOAD 7

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873H

TRANSPORTER:	US EPA ID Number:	Phone:
1 Environmental Recovery Corporation	PAD987288749	(717)393-2627
2		

GENERATOR:	US EPA ID Number:	Phone:
Colonial Pipeline Company 2942 Charles Street Fallston, MD 21047	N/A	(732) 306-2070

FACILITY:	US EPA ID Number:	Phone:
Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21226	MDD093002384	(410) 638-3700
Received: <u>Robert Duffy</u> (Print Name)		<u>[Signature]</u> (Signature)
		<u>4/27/2018</u> (Date)

HM	Description of Articles or Proper Shipping Name	Containers No.	Size	Type	Weight	Unit
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker	5024	G

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

GENERATOR:	Print Name	Signature	Date
Colonial Pipeline Company	<u>David N. Torn...</u>	<u>[Signature]</u>	<u>4/27/18</u>
TRANSPORTER:			
1 Environmental Recovery Corporation	<u>Tim Green</u>	<u>[Signature]</u>	<u>4/27/18</u>
2			

ER #: (800) 966-9282  
ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

LOAD 7 P0294371

**STRAIGHT BILL OF LADING**  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL3358731.

<b>TRANSPORTER:</b>		<b>US EPA ID Number:</b>	<b>Phone:</b>
1 Triumvirate Environmental, Inc. - Baltimore	MDD985397124	(410) 838-3700	
2			
<b>GENERATOR:</b>		<b>US EPA ID Number:</b>	<b>Phone:</b>
Colonial Pipeline Company	N/A	(732) 306-2070	
2942 Charles Street			
Fallston, MD 21047			
<b>FACILITY:</b>		<b>US EPA ID Number:</b>	<b>Phone:</b>
Triumvirate Environmental - Baltimore, LLC	MDD083002384	(410) 838-3700	
1500 Carbon Avenue			
Baltimore, MD 21226			
<b>Received:</b>		<b>(Print Name)</b>	<b>(Signature)</b>
		M. Astry	
			5-16-18

HM	Description of Articles or Proper Shipping Name	Containers			Unit	
		No.	Size	Type	Weight	Wt/Vol.
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker	TT 5024	G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b>	<b>Print Name</b>	<b>Signature</b>	<b>Date</b>
Colonial Pipeline Company	Rip Davis		5-16-18
<b>TRANSPORTER:</b>			
1 Triumvirate Environmental, Inc. - Baltimore	T. GREEN		5-16-18
2			

ER #: (800) 966-9282  
ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

X

LOAD 9

294371

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873J

<b>TRANSPORTER:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
1 Triumvirate Environmental, Inc. - Baltimore	MDD985397124	(410) 836-3700
2		

<b>GENERATOR:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Colonial Pipeline Company 2942 Charles Street Fallston, MD 21047	N/A	(732) 306-2070

<b>FACILITY:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21226	MDD093002384	(410) 836-3700
	Received: <u>C. CHILWLES</u> <small>(Print Name)</small>	<u>[Signature]</u> <small>(Signature)</small>
		<u>5-16-18</u> <small>(Date)</small>

HM	Description of Articles or Proper Shipping Name	Containers			Weight	Unit
		No.	Size	Type		
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker TT	5110	G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b>	<b>Print Name</b>	<b>Signature</b>	<b>Date</b>
Colonial Pipeline Company	<u>R. Davis</u>	<u>[Signature]</u>	<u>5-16-18</u>
<b>TRANSPORTER:</b>			
1 Triumvirate Environmental, Inc. - Baltimore	<u>T. GREEN</u>	<u>[Signature]</u>	<u>5/16/18</u>
2			<u>3-15-18</u>

ER #: (800) 966-9282  
ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

X

LOAD 90 294371

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873K.

<b>TRANSPORTER:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
1 Triumvirate Environmental, Inc. - Baltimore	MDD085397124	(410) 838-3700
2		

<b>GENERATOR:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Colonial Pipeline Company 2942 Charles Street Fallston, MD 21047	N/A	(732) 306-2070

<b>FACILITY:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21226	MDD083002384	(410) 636-3700
	Received: <u>C. CHILTONS</u> <small>(Print Name)</small>	<u>[Signature]</u> 410-636-3700 <small>(Signature)</small>
		5-17-18 <small>(Date)</small>

HM	Description of Articles or Proper Shipping Name	Containers			Unit	
		No.	Size	Type	Weight	Wt/Vol.
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker	TT	5110 G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b>	<b>Print Name</b>	<b>Signature</b>	<b>Date</b>
Colonial Pipeline Company	<u>Rip Davis</u>	<u>[Signature]</u>	5/17/18
<b>TRANSPORTER:</b>			
1 Triumvirate Environmental, Inc. - Baltimore	<u>T. GREEN</u>	<u>[Signature]</u>	5/17/18
2			

ER #: (800) 966-9282

ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

X

LOAD 11

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873L

<b>TRANSPORTER:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
1 Triumvirate Environmental, Inc. - Baltimore	MDD985397124	(410) 636-3700
2		

<b>GENERATOR:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Colonial Pipeline Company 2942 Charles Street Fallston, MD 21047	N/A	(732) 306-2070

<b>FACILITY:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21226	MDD093002384	(410) 636-3700
	Received: <u>C. CHILMES</u> <small>(Print Name)</small>	<u>[Signature]</u> <small>(Signature)</small>
		<u>5-17-18</u> <small>(Date)</small>

HM	Description of Articles or Proper Shipping Name	Containers			Weight	Unit
		No.	Size	Type		
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker TT	5024	G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b>	<b>Print Name</b>	<b>Signature</b>	<b>Date</b>
Colonial Pipeline Company	<u>Mark Vasel</u>	<u>[Signature]</u>	<u>5-17-18</u>
<b>TRANSPORTER:</b>			
1 Triumvirate Environmental, Inc. - Baltimore	<u>T. GREEN</u>	<u>[Signature]</u>	<u>5-17-18</u>
2	<u>[Signature]</u>		

<b>ER #:</b> (800) 966-9282	<b>Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)</b>
<b>ERIP:</b> Triumvirate Environmental	

X

LOAD 12

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING

BOL Document Number: BOL335873M.

ORIGINAL - NOT NEGOTIABLE

TRANSPORTER:

1 Triumvirate Environmental, Inc. - Baltimore  
2

US EPA ID Number:

MDD985397124

Phone:

(410) 636-3700

GENERATOR:

Colonial Pipeline Company  
2942 Charles Street  
Fallston, MD 21047

US EPA ID Number:

N/A

Phone:

(732) 306-2070

FACILITY:

Triumvirate Environmental - Baltimore, LLC  
1500 Carbon Avenue  
Baltimore, MD 21226

US EPA ID Number:

MDD083002384

Phone:

(410) 636-3700

Received:

M. Aubry  
*(Print Name)*

*(Signature)*

5-18-18  
*(Date)*

HM	Description of Articles or Proper Shipping Name	Containers			Unit	
		No.	Size	Type	Weight	Wt/Vol.
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker	TT	5071 G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

GENERATOR:

Colonial Pipeline Company

Print Name

Rip Davis

Signature

*(Signature)*

Date

5-18-18

TRANSPORTER:

1 Triumvirate Environmental, Inc. - Baltimore

T. GREEN

*(Signature)*

5-18-18

ER #: (800) 966-9282

ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)



LOAD 13

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873N.

<b>TRANSPORTER:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
1 Triumvirate Environmental, Inc. - Baltimore	MDD985397124	(410) 636-3700
2		

<b>GENERATOR:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Colonial Pipeline Company 2942 Charles Street Fallston, MD 21047	N/A	(732) 306-2070

<b>FACILITY:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21226	MDD093002384	(410) 636-3700
	Received: <u>M. Arby</u> <small>(Print Name)</small>	<u>[Signature]</u> <small>(Signature)</small>
		<u>5-18-18</u> <small>(Date)</small>

HM	Description of Articles or Proper Shipping Name	Containers			Weight	Unit
		No.	Size	Type		
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker TT	5051	G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b>	<b>Print Name</b>	<b>Signature</b>	<b>Date</b>
Colonial Pipeline Company	<u>Rip Davis</u>	<u>[Signature]</u>	<u>5/18/18</u>
<b>TRANSPORTER:</b>			
1 Triumvirate Environmental, Inc. - Baltimore	<u>T. GREEN</u>	<u>[Signature]</u>	<u>5-18-18</u>
2			

ER #: (800) 966-9282

ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

LOAD 14

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL3358730

<b>TRANSPORTER:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
1 Triumvirate Environmental, Inc.	MAC300016672	800-966-9282
2		

<b>GENERATOR:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Colonial Pipeline Company 2942 Charles Street Fallston, MD 21047	N/A	(732) 308-2070

<b>FACILITY:</b>	<b>US EPA ID Number:</b>	<b>Phone:</b>
Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21226	MDD093002384	(410) 836-3700
	Received: <u>Peter Duffy</u> <small>(Print Name)</small>	<u>[Signature]</u> <small>(Signature)</small> 5/18/2018 <small>(Date)</small>

HM	Description of Articles or Proper Shipping Name	Containers			Unit	
		No.	Size	Type	Weight	Wt/Vol.
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker	5054	G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b>	<b>Print Name</b>	<b>Signature</b>	<b>Date</b>
Colonial Pipeline Company	<u>Kevin Holmes</u>	<u>[Signature]</u>	5-18-18
<b>TRANSPORTER:</b>			
1 Triumvirate Environmental, Inc.	<u>H. Shallenbeger</u>	<u>[Signature]</u>	5-18-18
2			

<b>ER #:</b> (800) 966-9282	Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)
<b>ERIP:</b> Triumvirate Environmental	

X

LOAD 15

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING ORIGINAL - NOT NEGOTIABLE BOL Document Number: BOL335873P.

TRANSPORTER: 1 Triumvirate Environmental, Inc. 2 US EPA ID Number: MAC300018672 Phone: 800-966-9282

GENERATOR: Colonial Pipeline Company 2942 Charles Street Fallston, MD 21047 US EPA ID Number: N/A Phone: (732) 306-2070

FACILITY: Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21226 US EPA ID Number: MDD093002384 Phone: (410) 836-3700 Received: Peter Duffy (Print Name) [Signature] (Signature) 5/21/2018 (Date)

Table with columns: HM, Description of Articles or Proper Shipping Name, Containers No., Size, Type, Weight, Unit. Row 1: Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A, 001 x Tanker TT, 5025 G.

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

GENERATOR: Colonial Pipeline Company Print Name Rip Davis Signature [Signature] Date 5/21/18

TRANSPORTER: 1 Triumvirate Environmental, Inc. 2 T. GREEN [Signature] 5/21/18

ER #: (800) 966-9282 ERIP: Triumvirate Environmental Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

LOAD 16

**STRAIGHT BILL OF LADING**  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873Q.

<b>TRANSPORTER:</b> 1 Triumvirate Environmental, Inc. 2	<b>US EPA ID Number:</b> MAC300018872	<b>Phone:</b> 800-966-9282
<b>GENERATOR:</b> Colonial Pipeline Company 2842 Charles Street Fallston, MD 21047	<b>US EPA ID Number:</b> N/A	<b>Phone:</b> (732) 306-2070
<b>FACILITY:</b> Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21226	<b>US EPA ID Number:</b> MDD083002384	<b>Phone:</b> (410) 636-3700
Received: <u>Pete Doffy</u> <u>[Signature]</u> <u>5/21/2018</u>		<small>(Print Name) (Signature) (Date)</small>

HM	Description of Articles or Proper Shipping Name	Containers			Unit	
		No.	Size	Type	Weight	Wt/Vol.
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker	TT	5110 G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b> Colonial Pipeline Company	<u>Rip Davis</u>	<u>[Signature]</u>	<u>5-21-18</u>
<b>TRANSPORTER:</b> 1 Triumvirate Environmental, Inc. 2	<u>T. GREEN</u>	<u>[Signature]</u>	<u>5-21-18</u>

ER #: (800) 966-9282  
ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

STRAIGHT BILL OF LADING  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873R.

TRANSPORTER:

1 Triumvirate Environmental, Inc.  
2

US EPA ID Number:  
MAC300016672

Phone:  
800-966-9282

GENERATOR:

Colonial Pipeline Company  
2842 Charles Street  
Fallston, MD 21047

US EPA ID Number:  
N/A

Phone:  
(732) 306-2070

FACILITY:

Triumvirate Environmental - Baltimore, LLC  
1500 Carbon Avenue  
Baltimore, MD 21226

US EPA ID Number:  
MDD093002384

Phone:  
(410) 636-3700

Received: Peter Duffy [Signature] 5/21/2018  
(Print Name) (Signature) (Date)

HM	Description of Articles or Proper Shipping Name	Containers			Unit	
		No.	Size	Type	Weight	Wt/Vol.

Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A

0 0 1 x Tanker TT 5101 G

x

x

x

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

GENERATOR:

Colonial Pipeline Company

Print Name: JAMES GLOVER Signature: [Signature] Date: 5/21/18

TRANSPORTER:

1 Triumvirate Environmental, Inc.  
2

Print Name: Tim Green Signature: [Signature] Date: 5/21/18

ER #: (800) 966-9282  
ERIP: Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

Please print or type  
(Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS  
WASTE MANIFEST

1. Generator ID Number

n/a

2. Page 1 of

1

3. Emergency Response Phone

800.966.9282

4. Waste Tracking Number

NHWM 335873A.

5. Generator's Name and Mailing Address

Colonial Pipeline Company  
929 Hoods mill Road  
Woodbine, MD 21797

Generator's Site Address (if different than mailing address)

Colonial Pipeline - Bel Air Station  
2942 Charles Street  
Fallston, MD 21047

Generator's Phone:

6. Transporter 1 Company Name

Triumvirate Environmental

U.S. EPA ID Number

MAC300016672

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Triumvirate Environmental - Baltimore  
1500 Carbon Avenue  
Baltimore, MD 21226

U.S. EPA ID Number

Facility's Phone:

MDD093002384

9. Waste Shipping Name and Description

1. Non-RCRA, Non-DOT Regulated Materials - Liquids  
(Petroleum Impacted Water) 13802-20020A

10. Containers

No.

Type

001

TT

11. Total Quantity

6000

12. Unit Wt./Vol.

G

13. Special Handling Instructions and Additional Information

1 - (1x Tanker) 13802-20020A

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name

Mark Harold

Signature

*[Signature]*

Month Day Year

05 22 18

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

WREN'S WELSH

Signature

*[Signature]*

Month Day Year

05 22 18

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

17b. Alternate Facility (or Generator)

Manifest Reference Number:

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Peter Duffy

Signature

*[Signature]*

Month Day Year

05 22 18

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

**STRAIGHT BILL OF LADING**  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL335873U.

**TRANSPORTER:**  
1 Triumvirate Environmental, Inc.  
2

**US EPA ID Number:**  
MAC300016672

**Phone:**  
800-966-9282

**GENERATOR:**  
Colonial Pipeline Company  
2942 Charles Street  
Fallston, MD 21047

**US EPA ID Number:**  
N/A

**Phone:**  
(732) 306-2070

**FACILITY:**  
Triumvirate Environmental - Baltimore, LLC  
1500 Carbon Avenue  
Baltimore, MD 21226

**US EPA ID Number:**  
MDD093002384

**Phone:**  
(410) 636-3700

**Received:** \_\_\_\_\_  
(Print Name) (Signature) (Date)

HM	Description of Articles or Proper Shipping Name	Containers			Unit
		No.	Size	Type	
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A (7-6012 R) SR 0" 47" W	001	x	Tanker	TT 5054 G
			x		
			x		
			x		

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

**GENERATOR:**  
Colonial Pipeline Company

**TRANSPORTER:**  
1 Triumvirate Environmental, Inc.  
2

**Print Name:** x Rip Davis      **Signature:** *[Signature]*      **Date:** 5-23-18

**Print Name:** Ron Kawecki      **Signature:** *[Signature]*      **Date:** 5-23-18

**ER #:** (800) 966-9282  
**ERIP:** Triumvirate Environmental

Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)

TRIUMVIRATE ENVIRONMENTAL BILL OF LADING

**STRAIGHT BILL OF LADING**  
ORIGINAL - NOT NEGOTIABLE

BOL Document Number: BOL3358735

<b>TRANSPORTER:</b> 1 Triumvirate Environmental, Inc. 2	<b>US EPA ID Number:</b> MAC300018672	<b>Phone:</b> 800-966-9282
<b>GENERATOR:</b> Colonial Pipeline Company 2942 Charles Street Fallston, MD 21047	<b>US EPA ID Number:</b> N/A	<b>Phone:</b> (732) 306-2070
<b>FACILITY:</b> Triumvirate Environmental - Baltimore, LLC 1500 Carbon Avenue Baltimore, MD 21228	<b>US EPA ID Number:</b> MDD093002384	<b>Phone:</b> (410) 638-3700
<b>Received:</b> _____		
	<small>(Print Name)</small>	<small>(Signature)</small>
		<small>(Date)</small>

HM	Description of Articles or Proper Shipping Name	Containers			Weight	Unit
		No.	Size	Type		
	Non-RCRA, Non-DOT Regulated Materials - Liquids (Petroleum Impacted Water) 13802-20020A	001	x	Tanker TT	5084	G
			x			
			x			
			x			

This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation:

<b>GENERATOR:</b> Colonial Pipeline Company	<b>Print Name</b> Rip Davis	<b>Signature</b> <i>Rip Davis</i>	<b>Date</b> 05/23/2018
<b>TRANSPORTER:</b> 1 Triumvirate Environmental, Inc. 2	<b>Print Name</b> Tom Green	<b>Signature</b> <i>Tom Green</i>	<b>Date</b> 05/23/2018

**ER #:** (800) 966-9282  
**ERIP:** Triumvirate Environmental

**Monitored at all times the Hazardous Materials is in transportation including storage to transportation. (172.604)**

## Bel Air Petroleum Contact Water Tracker

Date	Transporter	Disposal Facility	Quantity (gal)
3/16/18	Miller	Triumvirate	133
4/4/18	Miller	Monarch	5,048
4/4/18	Miller	Monarch	5,306
4/12/18	Miller	Monarch	3,703
4/17/18	Triumvirate	Triumvirate	5,192
4/17/18	Triumvirate	Triumvirate	5,024
4/18/18	Triumvirate	Triumvirate	5,024
4/19/18	Triumvirate	Triumvirate	5,110
4/19/18	Triumvirate	Triumvirate	3,009
4/25/18	Triumvirate	Triumvirate	4,835
4/27/18	Triumvirate	Triumvirate	5,024
5/16/18	Triumvirate	Triumvirate	5,024
5/16/18	Triumvirate	Triumvirate	5,110
5/17/18	Triumvirate	Triumvirate	5,110
5/17/18	Triumvirate	Triumvirate	5,024
5/18/18	Triumvirate	Triumvirate	5,071
5/18/18	Triumvirate	Triumvirate	5,051
5/18/18	Triumvirate	Triumvirate	5,054
5/21/18	Triumvirate	Triumvirate	5,025
5/21/18	Triumvirate	Triumvirate	5,110
5/21/18	Triumvirate	Triumvirate	5,101
5/22/18	Triumvirate	Triumvirate	6,000
5/23/18	Triumvirate	Triumvirate	5,054
5/23/18	Triumvirate	Triumvirate	5,024

Total = 114,166

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

B15-0053

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

Colonial ER Pipeline Co  
2942 Charles St Falls Church MD 21033

Generator's Phone:

6. Transporter 1 Company Name

Weyer Environmental Group Inc

U.S. EPA ID Number: 302-633-7012

7. Transporter 2 Company Name

535 Edward Brooke Capital Way 11788

U.S. EPA ID Number

8. Designated Facility Name and Site Address

# 800-250-3978

U.S. EPA ID Number

Monarch RAU, SVCS  
108 East Lake Road

Facility's Phone:

Woodstone MD 08098

EPA 302-052000029467

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

No.

Type

1. New DOT non RCRA  
impaired solution contamination

1

RD

3.77 tons

profile 6327

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offero's Printed/Typed Name

Signature

Month Day Year

Chris Johnson

[Signature]

4 2 18

15. International Shipments:

Import to U.S.

Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Kevin Elmore

[Signature]

4 2 18

Transporter 2 Printed/Typed Name

Signature

Month Day Year

Kevin Elmore

[Signature]

4 2 18

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

U.S. EPA ID Number

17b. Alternate Facility (or Generator)

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Signature

Month Day Year

Keesha Schost

[Signature]

10 4 18