



8323 Terminal Drive, Bay B  
Lorton, VA 22079

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**POST-SITE CHARACTERIZATION MONITORING REPORT  
Sub-Phase #1**

**Coopers Cove Petroleum Release  
1640 Coopers Cove Road  
Hardy, Virginia 24101  
PC #2024-2089**

Prepared for:

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Salem, Virginia 24153

TEC Project # 4260177  
August 14, 2024

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## **1.0 INTRODUCTION AND SITE HISTORY**

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On November 2, 2023, Total Environmental Concepts, Inc. (TEC) received a call from the Virginia Department of Environmental Quality (DEQ) Blue Ridge Regional Office (BRRO) regarding a report of a petroleum odor in a residential supply well located at 1556 Coopers Cove Road in Hardy (Franklin County), Virginia. The homeowner initially contracted Culligan Water to install a water softener system due to odors and water staining in their residence. During preliminary testing, Culligan technicians noted a petroleum odor in the tap water. After Culligan confirmed the presence of petroleum on-site, DEQ was alerted, and Pollution Complaint (PC) Number 2024-2089 was opened under the State Lead Program.

### **1.1 HISTORICAL REPORTS**

#### **1.1.1 Release Investigation Report - February 2, 2024**

Mr. David Kirby, DEQ BRRO case manager, tasked TEC with conducting a Release Investigation (RI) to identify a potential source (or sources) of a petroleum release. During this phase of work, groundwater samples were obtained from 44 residential supply wells located within one mile radius of the suspected petroleum release. A total of 18 supply wells were confirmed to be impacted by methyl tert-butyl ether (MTBE) and/or other petroleum-related constituents. Carbon filtration units (CFUs) were installed on each impacted supply well in order to provide potable drinking water to each residence.

During the RI, TEC discovered three underground storage tanks (USTs) at 1640 Coopers Cove Road. These tanks are located approximately 200 feet north and topographically up-gradient from the impacted supply well at 1556 Coopers Cove Road.

Based on knowledge acquired from the homeowner at 1640 Coopers Cove Road, the tanks were previously used to store gasoline for a private plumbing business on-site. Direct Push Technology (DPT) was utilized to advance eight soil borings to depths of approximately 18 to 36 feet below ground surface (bgs) around the gasoline USTs on December 22, 2023. Detections of total petroleum hydrocarbon – gasoline range organics (TPH-GRO), benzene, toluene, ethylbenzene, total xylenes (BTEX), and naphthalene were reported in the samples collected from various soil boring locations surrounding the tanks. Samples collected from the southwestern side of the UST basin at a depth of ten feet were highest for TPH-GRO levels at 3,490 milligrams per kilogram (mg/kg), benzene at 969 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ), ethylbenzene (79,800  $\mu\text{g}/\text{kg}$ ), total xylenes (344,000  $\mu\text{g}/\text{kg}$ ), total BTEX (485,969  $\mu\text{g}/\text{kg}$ ), and naphthalene (71,900  $\mu\text{g}/\text{kg}$ ). Detections of toluene were highest in the samples collected from the boring advanced on the southeastern edge of the basin at a depth of 34 to 36 feet. During the DPT event, one additional boring was advanced adjacent to the out-of-use, 500-gallon heating oil UST located at 1556 Coopers Cove Road. A detection of total petroleum hydrocarbon – diesel range organics (TPH-DRO) above the DEQ soil saturation level of 13,000 mg/kg was reported. Detections of TPH-DRO were not reported in the soil sample collected near the out-of-use 500-gallon heating oil UST located at 1640 Coopers Cove Road.

The release from the gasoline USTs at 1640 Coopers Cove Road will remain under PC# 2024-2089, while the release that occurred from the heating oil UST at 1556 Coopers Cove Road was placed under PC# 2024-2133. In the RI Report submitted on February 2, 2024, TEC recommended removal of the three gasoline USTs under PC# 2024-2089. TEC also recommended



removal of the heating oil UST from 1556 Coopers Cove Road under PC# 2024-2133. In addition, TEC recommended the investigation of nearby gasoline USTs located at 1430 Coopers Cove Road. This Release Investigation will be documented under PC# 2024-2166. DEQ agreed with removal of the gasoline tanks at 1640 Coopers Cove Road and additional supply well sampling events under an Initial Abatement Measures Report (IAMR) phase of work.

### **1.1.2 Initial Abatement Measures Report – April 2, 2024**

On February 6, 2024, TEC mobilized to the site in order to begin removal of the three gasoline USTs located at 1640 Coopers Cove Road. The concrete pad was dismantled and the clean soil above the tanks was removed and set aside. Each tank was exposed at approximately 36 inches bgs.

Two fill pipes were originally located during previous Release Investigation activities. It was determined that these fill pipes were connected to UST-1 and UST-2. Per owner knowledge, the third tank was expected to be manifolded into one of the other two tanks. However, a third fill pipe was located under the gravel driveway adjacent to the concrete pad, and less than two inches of gasoline were present in the tank. TEC proceeded to cut one of the vent pipes below grade and the piping was removed from the ground. The second vent pipe was left in place as it was utilized for a satellite dish. It was determined that it was the vent pipe for UST-3 that was manifolded into UST-2 and not the fill pipe.

TEC returned to the site on February 7, 2024, and exposed the three tanks on all sides. A vacuum truck, provided by W.E.L., was used to recover any remaining liquids through the fill pipes located on each tank. The tanks were then removed and set on the ground outside of the UST basin. Each tank was measured to be approximately 11 feet in length with a four-foot diameter. A pressure washer was used to clean the inside of the tanks while the vacuum hose recovered all petroleum-impacted wash water, as well as gasoline vapors. The inside of each tank was washed and vacuumed of any remaining fuel and/or sludge. A total of 160 gallons of gasoline and petroleum-impacted water were recovered and properly disposed of off-site by W.E.L. The three USTs were transported off-site for disposal.

Soil samples were obtained from below each tank prior to the excavation of impacted soils, as well as post-excavation. In addition, samples were obtained from the maximum extent of the excavation of approximately 18 feet bgs and at an additional depth of 25 feet bgs. Analytical results indicate that the majority of residual-phase hydrocarbons do not appear to attenuate with depth.

A total of 157.49 tons of petroleum-impacted soil were removed from the site and properly disposed. Groundwater was not encountered at the maximum excavation depth of 18 feet bgs or in the hand auger borings that were advanced to 25 feet bgs. An injection well system was installed in the former UST basin in order to facilitate bioremediation in situ during future site activities.

One additional DEQ public meeting was held with members of the Coopers Cove community. TEC collected groundwater samples from four supply wells located within one mile of the release. There were no petroleum-related detections reported.

TEC recommended a Post-Site Characterization Monitoring (PSCM) phase to include collection of follow-up groundwater samples for all supply wells previously sampled during the RI and IAM phases of work and continue to collect groundwater samples from supply wells located



within one mile of the release as authorized by DEQ. TEC would also continue to aid DEQ in investigating the feasibility of extending the municipal water supply that is currently owned by Lakeshore Terrace.

## **1.2 LOCATION AND DESCRIPTION**

The area of Franklin County, Virginia, where the petroleum release was originally reported, is primarily residential and of agricultural use. According to the United States Geological Survey (USGS) 1963 Hardy, Virginia 7.5 Minute Quadrangle Map, the approximate land surface elevation is 1,100 feet above mean sea level (amsl) (Figure 1). The topography of the surrounding area is relatively mountainous with a gentle slope from the north towards the south. Prater Creek is located approximately 1,000 feet southeast of the gasoline tank basin and runs from the southwest to the northeast, where it empties into the Roanoke River.

## **1.3 SITE GEOLOGY**

According to the United States Geological Survey (USGS), the most prominent formation in the immediate area is the Ashe Formation, which is described as containing medium- to light-gray, massive, conglomeratic biotite schist and gneiss, with feldspar, quartz, and granitic clasts; grading upwards into medium- to fine-grained, salt-and-pepper-textured two-mica plagioclase gneiss with very-light-gray mica schist interbeds.

During DPT activities performed during the Release Investigation, a weathered saprolite layer was typically encountered between 10 to 15 feet bgs near the gasoline UST basin. A consistent transition from clay to silt was noted after this depth. During UST removal activities, a transition from clay to primarily silt was observed from approximately 12 feet to the maximum excavation depth of 18 feet bgs and weathered saprolite was noted in the soil sample obtained via hand auger at a depth of 25 feet bgs.

## **2.0 POST-SITE CHARACTERIZATION MONITORING ACTIVITIES**

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During the Post-Site Characterization Monitoring Sub-Phase #1, TEC collected groundwater samples from 34 supply wells located within one mile of the release. The majority of the groundwater samples collected during this phase of work were quarterly follow-up samples. In addition, TEC began moving forward with preliminary investigation of the feasibility of installing a community well system in the nearby area. Table 1 displays all current and historical supply well sampling data. An updated aerial site map is available as Figure 2.

### **2.1 GROUNDWATER SAMPLING (3/23/2024)**

On March 23, 2024, TEC personnel met with the property owner of the Terrace Water Corporation in order to collect groundwater samples from the community well system. The DEQ and Western Virginia Water Authority (WVWA) were originally in discussion with the owner of Terrace Water Corporation to potentially extend and connect the water line to the impacted residences of the Coopers Cove Community. TEC obtained the raw groundwater sample in laboratory-provided sample container and placed the samples on ice. During the same visit, TEC also collected a sample from 5222 Palmetto Bluff Road, after the owners expressed interest in having their supply well sampled. Each supply well was allowed to purge for approximately ten minutes prior to sample collection. The sampler donned new nitrile gloves and collected the samples in laboratory-provided containers. The samples were placed on ice and transported to Enthalpy Analytical (Enthalpy) in Richmond, Virginia.

#### **2.1.1 Groundwater Sampling Results (3/23/2024)**

The groundwater samples collected from the Terrace Water Corporation were analyzed for volatile organic compounds (VOCs) via Environmental Protection Agency (EPA) Method 8260D, semi-volatile organic compounds (SVOCs) via EPA Method 8270E, and 1,2-Dibromoethane (EDB) via EPA Method 8011. EDB is a ubiquitous component of lead-based antiknock additive mixtures, which were used from the 1920s through the late 1980s to increase gasoline octane ratings. There were no reported detections in the groundwater samples collected from the Terrace Water Corporation community well system.

The groundwater samples collected from the property located at 5222 Palmetto Bluff Road were analyzed for VOCs via 8260 and EDB via 8011. There were no reported detections in the supply well samples. The analytical report and chain of custody documentation are available in Attachment A.

### **2.2 GROUNDWATER SAMPLING (4/1/2024)**

On April 1, 2024, TEC personnel visited 13 properties to collect quarterly follow-up groundwater samples from the supply wells located at:

- 76 Patsel Court
- 1987 Coopers Cove Road
- 5444 Windermere Way
- 1356 Coopers Cove Road (Walter's Greenhouse)
- 17 Valley View Road
- 1326 Coopers Cove Road

- 55 Valley View Road
- 350 Ridgecrest Road
- 411 Coopers Cove Road (Community Well)
- 46 Ridgecrest Road
- 1515 Coopers Cove Road
- 1451 Coopers Cove Road
- 1555 Coopers Cove Road

Each supply well was allowed to purge for approximately ten minutes prior to sample collection. The sampler donned new nitrile gloves and collected the samples in laboratory-provided containers. The samples were placed on ice and transported to Enthalpy for analysis of VOCs 8260 and EDB 8011.

### **2.2.1 Groundwater Sampling Results (4/1/2024)**

Detections of MTBE were reported in the groundwater samples collected from 76 Patsel Court (1.86 µg/L) and 5444 Windermere Way (6.03 µg/L). The property owners were notified, and the impacted supply wells were connected to CFUs in order to provide potable water to the residences.

There were no other reported detections in any of the other supply wells that were sampled on April 1, 2024. The analytical report and chain of custody documentation are available in Attachment B.

### **2.3 GROUNDWATER SAMPLING (4/2/2024)**

On April 2, 2024, TEC personnel visited five properties to collect quarterly follow-up groundwater samples from the supply wells located at:

- 17 Ridgecrest Road
- 1601 Coopers Cove Road
- 2234 Coopers Cove Road
- 5290 Pitzer Road
- 5281 Pitzer Road

Each supply well was allowed to purge for approximately ten minutes prior to sample collection. The sampler donned new nitrile gloves and collected the samples in laboratory-provided containers. The samples were placed on ice and transported to Enthalpy, for analysis of VOCs 8260 and EDB 8011.

### **2.3.1 Groundwater Sampling Results (4/2/2024)**

There were no reported detections in the five groundwater samples that were collected on April 2, 2024. The analytical report and chain of custody documentation are available in Attachment C.



## **2.4 GROUNDWATER SAMPLING (4/4/2024)**

On April 4, 2024, TEC collected groundwater samples from three properties, including 1430 Coopers Cove Road, 5274 Palmetto Bluff Road, and 5390 Palmetto Bluff Road. Each supply well was allowed to purge for approximately ten minutes prior to sample collection. The sampler donned new nitrile gloves and collected the samples in laboratory-provided containers. The samples were placed on ice and transported to Enthalpy Analytical, for analysis of VOCs 8260 and EDB 8011.

### **2.4.1 Groundwater Sampling Results (4/4/2024)**

There were no reported detections in the three groundwater samples that were collected on April 4, 2024. The analytical report and chain of custody documentation are available in Attachment D.

## **2.5 GROUNDWATER SAMPLING (4/10/2024)**

On April 10, 2024, TEC collected groundwater samples from four properties, including 2250 Coopers Cove Road, 1609 Coopers Cove Road, 1850 Coopers Cove Road, and 2237 Coopers Cove Road. Each supply well was allowed to purge for approximately ten minutes prior to sample collection. The sampler donned new nitrile gloves and collected the samples in laboratory-provided containers. The samples were placed on ice and transported to Enthalpy Analytical, for analysis of VOCs 8260 and EDB 8011.

### **2.5.1 Groundwater Sampling Results (4/10/2024)**

A detection of acetone (15.9 µg/L) was reported in the supply well samples collected from 1850 Coopers Cove Road. Per limited research, the presence of acetone without any other breakdown chemicals reported is likely attributed to either field or laboratory contamination and is not thought to be related to the petroleum release. There were no reported detections in the four groundwater samples that were collected on April 10, 2024. The analytical report and chain of custody documentation are available in Attachment E.

## **2.6 GROUNDWATER SAMPLING (6/11/2024)**

On June 11, 2024, TEC collected groundwater samples from three properties, including 920 Buckeye Lane, 5370 Palmetto Bluff Road, and 4567 Windy Gap Drive. Each supply well was allowed to purge for approximately ten minutes prior to sample collection. The sampler donned new nitrile gloves and collected the samples in laboratory-provided containers. The samples were placed on ice and transported to Enthalpy, for analysis of VOCs 8260 and EDB 8011.

### **2.6.1 Groundwater Sampling Results (6/11/2024)**

Detections of acetone were reported in the samples collected from each supply well. This includes 16.5 µg/L acetone reported in the samples collected from 920 Buckeye Lane, 10.3 µg/L acetone reported in the samples collected from 5370 Palmetto Bluff Road, and 12.1 µg/L acetone reported in the samples collected from 4567 Windy Gap Drive. TEC communicated the results of the sampling event to DEQ, and it was concluded that a full resampling event of the three wells would occur. The analytical report and chain of custody documentation for the June 11, 2024, sampling event are available in Attachment F.

## **2.7 GROUNDWATER SAMPLING (6/27/2024)**

On June 27, 2024, TEC returned to the three properties to collect additional groundwater samples due to the previous acetone detections. Each supply well was allowed to purge for approximately ten minutes prior to sample collection. The sampler donned new nitrile gloves and collected the samples in laboratory-provided containers. The samples were placed on ice and transported to Enthalpy, for analysis of VOCs 8260 only.

### **2.7.1 Groundwater Sampling Results (6/27/2024)**

There were no reported detections of acetone in any of the additional samples that were collected. TEC discussed the results of the resampling event with the laboratory director of Enthalpy Analytical and multiple tests are currently being conducted in order to determine where the acetone detections are likely to originate from.

The analytical report and chain of custody documentation for the June 11, 2024, sampling event are available in Attachment G.

## **2.8 GROUNDWATER SAMPLING (6/13/2024)**

On June 13, 2024, TEC collected groundwater samples from the property located at 5409 Windermere Way. The supply well was allowed to purge for approximately ten minutes prior to sample collection. The sampler donned new nitrile gloves and collected the samples in laboratory-provided containers. The samples were placed on ice and transported to Enthalpy Analytical, for analysis of VOCs 8260 and EDB 8011.

### **2.8.1 Groundwater Sampling Results (6/13/2024)**

A detection of chloroform (0.73 µg/L) was reported in the groundwater samples collected from the supply well at 5409 Windermere Way. This property is currently being renovated and the chloroform detection is likely related to the routine chlorination of private supply wells. The detection reported during the June 13, 2024, sampling event has also decreased (1.53 µg/L to 0.73 µg/L) since the last sampling event conducted on March 7, 2024.

There were no other reported detections in the groundwater samples collected from the supply well at 5409 Windermere Way. The analytical report and chain of custody documentation are available in Attachment H.

## **2.9 COMMUNITY WELL INVESTIGATION**

With 21 confirmed supply wells impacted with dissolved-phase hydrocarbons (DPH), a permanent, potable water source is required. Initial interest was in the possibility of connecting and extending a waterline from the Terrace Water Association, which utilizes two community supply wells and two 16,200-gallon aboveground water tanks to supply drinking water to multiple residences in the Lakeshore Terrace community. TEC collected groundwater samples from this water supply during this phase of work and no detections of VOCs or EDB were reported. After multiple negotiations between the private operator of the community well system, Western Virginia Water Authority (WVWA), and DEQ, it appears that this connection will likely not occur.

TEC and DEQ recently discussed installation of a new community well system near the affected area of the Coopers Cove community. TEC contracted HydroGeo, of Charlottesville, Virginia, on August 5, 2024, to provide initial data collection on nearby parcels that could potentially provide the necessary water supply to provide potable water to multiple residences. This initial data collection includes obtaining air photos, light detection and ranging (LiDAR) maps, fracture trace analysis, and geographic information systems (GIS) evaluation of localized geology and soils.

## **3.0 CONCLUSIONS AND RECOMMENDATIONS**

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### **3.1 CONCLUSIONS**

During PSCM #1 activities, groundwater samples were collected from a total of 34 supply wells and analyzed for VOCs and EDB. Detections of MTBE were reported in two additional supply wells, bringing the total number of wells impacted by DPH to 21.

Acetone was detected in multiple supply wells during this quarter's sampling event. Per limited research, the presence of acetone without any other breakdown chemicals reported is likely attributed to either field or laboratory contamination and is not thought to be related to the petroleum release. TEC collected follow-up sampling as a precaution for three of the supply wells and no detections of acetone were reported in the secondary set of samples. TEC is working closely with the director of Enthalpy Analytical to determine any possible sources of acetone detections to reduce any possible contamination moving forward.

After possible connection to the Terrace Water Association community well system was terminated, TEC contracted HydroGeo to conduct initial investigation to determine the best possible location for a community well system in the nearby area. Once this initial information is obtained and analyzed, TEC and DEQ will reach out to the owner(s) of the parcels that have been deemed potential options for a successful community water supply. If the owner(s) are interested in providing an easement, TEC will continue working with HydroGeo to perform subsurface geophysics mapping via Electromagnetic (EM) Surveys and Electrical Resistivity (ER) Surveys on the chosen parcel(s).

### **3.2 RECOMMENDATIONS**

TEC recommends conducting additional site work under PC# 2024-2089 during a Post-Site Characterization Monitoring Sub-Phase #2 (PSCM #2), which is to include the following activities:

- Continue to collect groundwater samples from supply wells located within one mile of the release as requested by homeowners and authorized by DEQ.
  - Residences with carbon filtration systems are currently on a separate sampling schedule with Stoner Water Quality (Culligan).
- Obtain initial photo-ionization detector (PID) readings from the injection wells installed at the former UST basin.
- Injection of Spillaway® bioremediation product into the existing injection well system along with post-injection PID readings.



- Work alongside HydroGeo to choose potential locations for potable community well system in the nearby area via initial groundwater prospecting data collection and follow-up Electromagnetic (EM) and Electrical Resistivity (ER) surveys of selected parcels.
- Begin obtaining necessary easement documentation to begin drilling replacement supply well(s) on selected parcels.

#### **4.0 LIMITATIONS**

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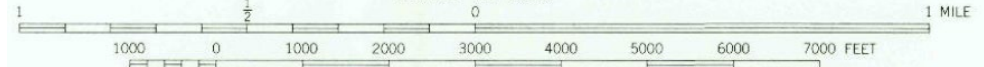
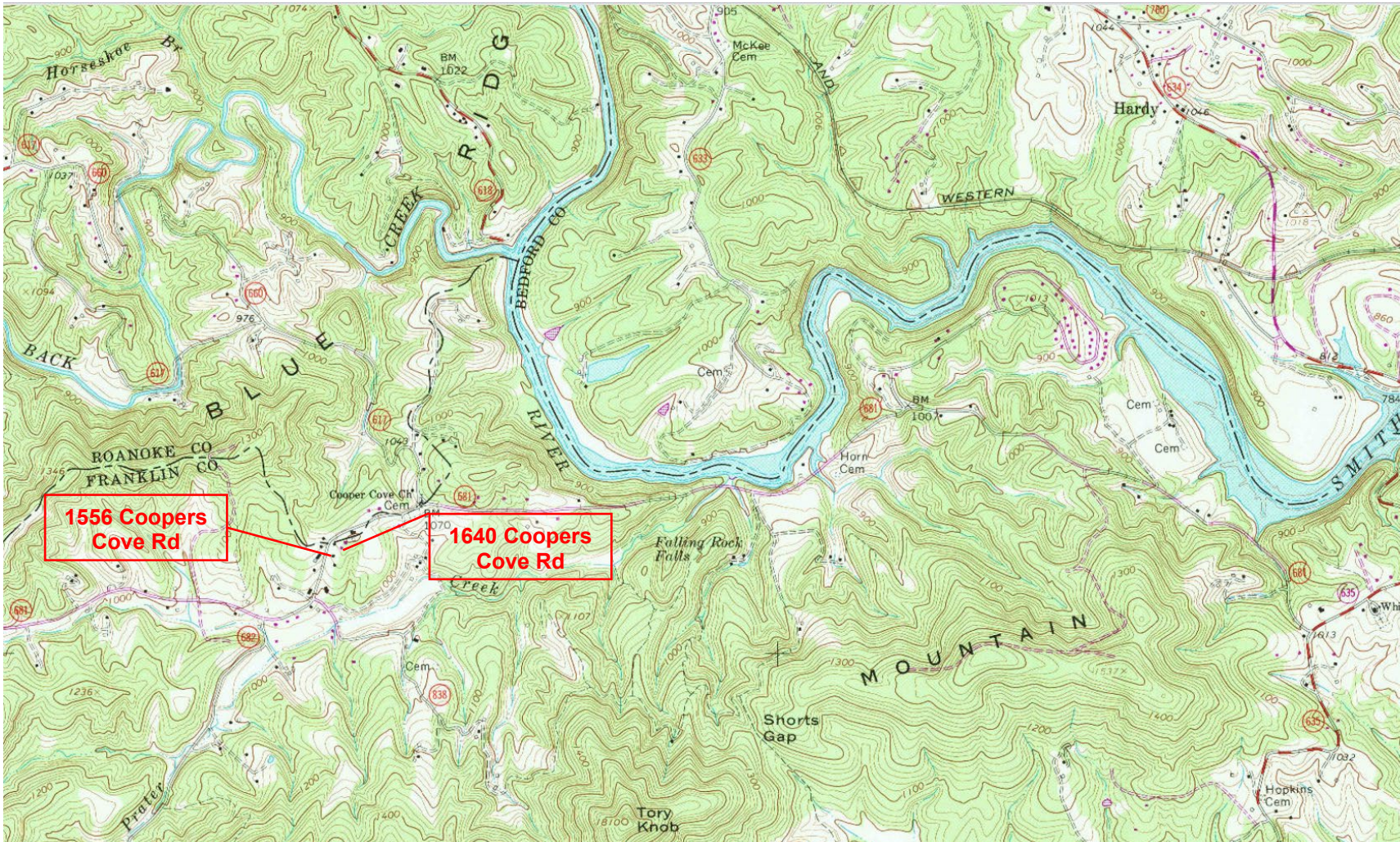
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TEC's professional services have been performed, findings obtained, and recommendations prepared in accordance with customary principles and practices in the fields of geology and environmental science. TEC is not responsible for the independent conclusions, opinions, or recommendations made by others based on the field exploration and laboratory test data presented in this report.

The work performed in conjunction with this report and the data developed are intended to describe available information at the dates and locations given. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.



## FIGURES



8382 Terminal Road  
 Suite B  
 Lorton, VA 22079  
 Office: 703-567-4346

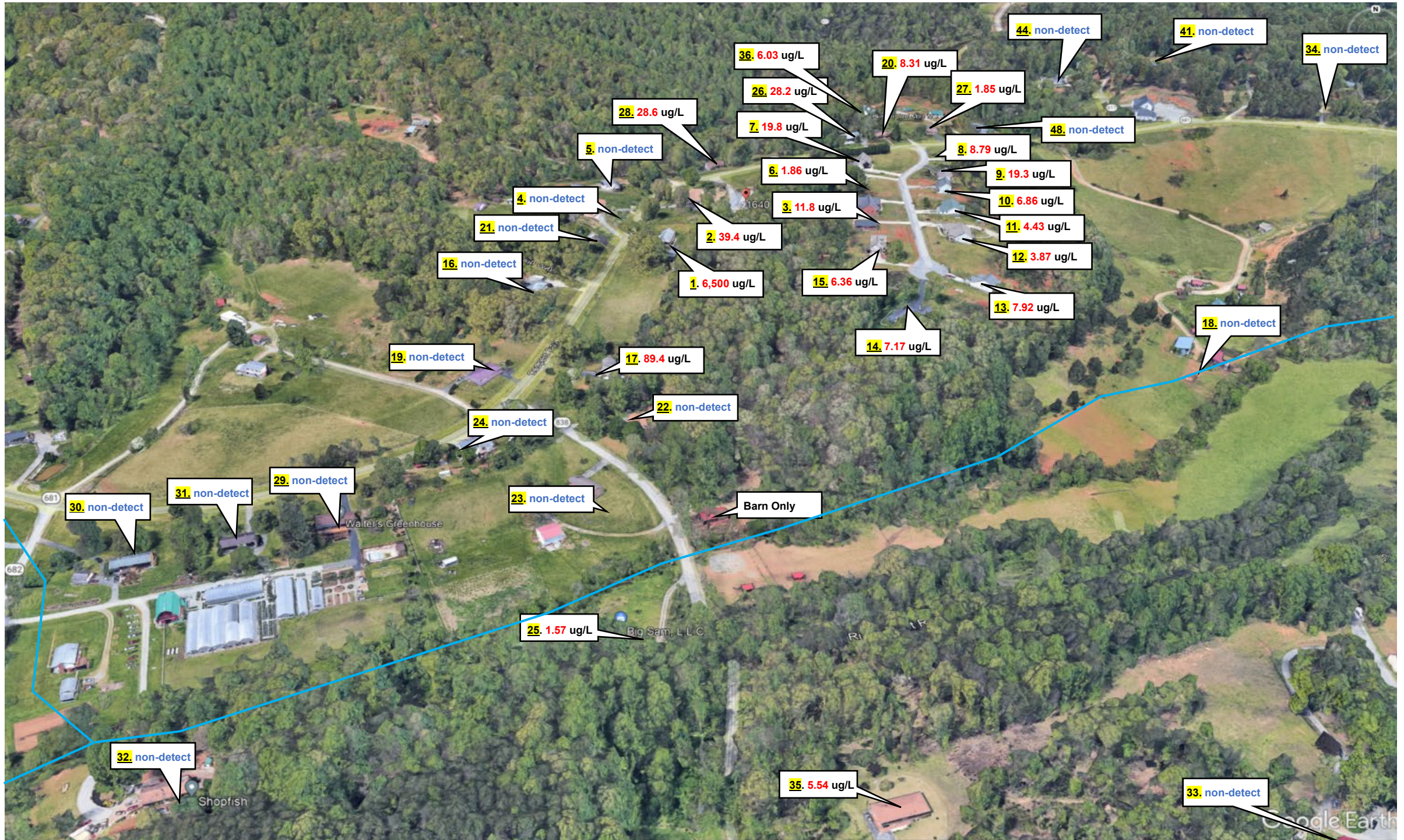
Image obtained from: TopoView 1/9/2024  
 1963 Hardy, VA Quadrangle

## TOPOGRAPHIC MAP

# 1556 and 1640 Coopers Cove Road

## Hardy, Virginia 24101

Figure  
 No.  
**1**



\*\*Not pictured due to distance but all registering non-detect #37, #38, #39, #40, #42, #43, #45, #46, #47, #49, #50





## TABLES





**Attachment A**

**Laboratory Analytical Report (3/23/2024)**



1941 Reymet Road • Richmond, Virginia 23237 • Tel: (804)-358-8295 Fax: (804)-358-8297

## Certificate of Analysis

*Final Report*

Laboratory Order ID 24C1309

Client Name: Total Environmental Concepts-Lorton  
8382 Terminal Rd, Bay B

Date Received: March 26, 2024 10:18

Date Issued: March 28, 2024 14:35

Lorton, VA 22079

Project Number: 4260155-001

Submitted To: Shanna Hryvniak

Purchase Order: 4260155-001

Client Site I.D.: Coopers Cove Rd, Hardy VA

Enclosed are the results of analyses for samples received by the laboratory on 03/26/2024 10:18. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads 'Ted Soyars'.

Ted Soyars  
Technical Director

### End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

This report shall not be reproduced except in full without the expressed and written approval of an authorized representative of Enthalpy Analytical.



TNI Accredited  
VELAP ID 460021



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### Certificate of Analysis

*Final Report*

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

#### ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 24C1309

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Terrace Water Corp	24C1309-01	Ground Water	03/23/2024 11:25	03/26/2024 10:18
5222 Palmetto Bluff Rd.	24C1309-02	Ground Water	03/23/2024 12:30	03/26/2024 10:18
Trip Blank	24C1309-03	Non-Potable Water	12/08/2023 12:10	03/26/2024 10:18



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

Laboratory Order ID: 24C1309

#### Analytical Results

Sample I.D. Terrace Water Corp	Laboratory Sample ID: 24C1309-01
Grab Date/Time: 03/23/2024 11:25	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	03/26/24 16:59	03/26/24 16:59	RJB
1,1,1-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,1,2,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	03/26/24 16:59	03/26/24 16:59	RJB
1,1,2-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,1-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,1-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,1-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,2,3-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,2,3-Trichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,2,4-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,2,4-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,2-Dibromoethane (EDB)	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,2-Dichlorobenzene	01	SW8260D	<0.50 ug/L		0.50	1	03/26/24 16:59	03/26/24 16:59	RJB
1,2-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,2-Dichloropropane	01	SW8260D	<0.50 ug/L		0.50	1	03/26/24 16:59	03/26/24 16:59	RJB
1,3,5-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,3-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,3-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
1,4-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
2,2-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
2-Butanone (MEK)	01	SW8260D	<10.0 ug/L		10.0	1	03/26/24 16:59	03/26/24 16:59	RJB
2-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
2-Hexanone (MBK)	01	SW8260D	<5.00 ug/L		5.00	1	03/26/24 16:59	03/26/24 16:59	RJB
4-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: March 28, 2024 14:35  
 Project Number: 4260155-001  
 Purchase Order: 4260155-001

Laboratory Order ID: 24C1309

### Analytical Results

Sample I.D. Terrace Water Corp Laboratory Sample ID: 24C1309-01  
 Grab Date/Time: 03/23/2024 11:25  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
4-Methyl-2-pentanone (MIBK)	01	SW8260D	<5.00 ug/L		5.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Acetone	01	SW8260D	<10.0 ug/L		10.0	1	03/26/24 16:59	03/26/24 16:59	RJB
Benzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Bromobenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Bromochloromethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Bromodichloromethane	01	SW8260D	<0.50 ug/L		0.50	1	03/26/24 16:59	03/26/24 16:59	RJB
Bromoform	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Bromomethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Carbon disulfide	01	SW8260D	<10.0 ug/L		10.0	1	03/26/24 16:59	03/26/24 16:59	RJB
Carbon tetrachloride	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Chlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Chloroethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Chloroform	01	SW8260D	<0.50 ug/L		0.50	1	03/26/24 16:59	03/26/24 16:59	RJB
Chloromethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
cis-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
cis-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Dibromochloromethane	01	SW8260D	<0.50 ug/L		0.50	1	03/26/24 16:59	03/26/24 16:59	RJB
Dibromomethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Dichlorodifluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Di-isopropyl ether (DIPE)	01	SW8260D	<5.00 ug/L		5.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Ethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Hexachlorobutadiene	01	SW8260D	<0.80 ug/L		0.80	1	03/26/24 16:59	03/26/24 16:59	RJB
Iodomethane	01	SW8260D	<10.0 ug/L		10.0	1	03/26/24 16:59	03/26/24 16:59	RJB
Isopropylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
m+p-Xylenes	01	SW8260D	<2.00 ug/L		2.00	1	03/26/24 16:59	03/26/24 16:59	RJB

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

**Laboratory Order ID: 24C1309**

**Analytical Results**

Sample I.D. Terrace Water Corp	Laboratory Sample ID: 24C1309-01
Grab Date/Time: 03/23/2024 11:25	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	01	SW8260D	<4.00 ug/L		4.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Methyl-t-butyl ether (MTBE)	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Naphthalene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
n-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
n-Propylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
o-Xylene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
sec-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Styrene	01	SW8260D	<1.00 ug/L	C	1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
tert-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Tetrachloroethylene (PCE)	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Toluene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
trans-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
trans-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Trichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Trichlorofluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Vinyl acetate	01	SW8260D	<10.0 ug/L		10.0	1	03/26/24 16:59	03/26/24 16:59	RJB
Vinyl chloride	01	SW8260D	<0.50 ug/L		0.50	1	03/26/24 16:59	03/26/24 16:59	RJB
Xylenes, Total	01	SW8260D	<3.00 ug/L		3.00	1	03/26/24 16:59	03/26/24 16:59	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	01	SW8260D	106 %		70-120		03/26/24 16:59	03/26/24 16:59	RJB
Surr: 4-Bromofluorobenzene (Surr)	01	SW8260D	94.8 %		75-120		03/26/24 16:59	03/26/24 16:59	RJB
Surr: Dibromofluoromethane (Surr)	01	SW8260D	91.9 %		70-130		03/26/24 16:59	03/26/24 16:59	RJB
Surr: Toluene-d8 (Surr)	01	SW8260D	98.4 %		70-130		03/26/24 16:59	03/26/24 16:59	RJB

**Semivolatile Organic Compounds by GCMS**





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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: March 28, 2024 14:35  
 Project Number: 4260155-001  
 Purchase Order: 4260155-001

Laboratory Order ID: 24C1309

#### Analytical Results

Sample I.D. Terrace Water Corp Laboratory Sample ID: 24C1309-01  
 Grab Date/Time: 03/23/2024 11:25  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Semivolatile Organic Compounds by GCMS</b>									
1,2,4,5-Tetrachlorobenzene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
1,2,4-Trichlorobenzene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
1,2-Dichlorobenzene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
1,2-Diphenylhydrazine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
1,3-Dichlorobenzene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
1,3-Dinitrobenzene	01	SW8270E	<2.50 ug/L		2.50	1	03/27/24 09:30	03/27/24 20:46	BMS
1,4-Dichlorobenzene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
1-Naphthylamine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2,3,4,6-Tetrachlorophenol	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2,4,5-Trichlorophenol	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2,4,6-Trichlorophenol	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2,4-Dichlorophenol	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2,4-Dimethylphenol	01	SW8270E	<5.00 ug/L		5.00	1	03/27/24 09:30	03/27/24 20:46	BMS
2,4-Dinitrophenol	01	SW8270E	<50.0 ug/L		50.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2,4-Dinitrotoluene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2,6-Dichlorophenol	01	SW8270E	<10.0 ug/L	C	10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2,6-Dinitrotoluene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2-Chloronaphthalene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2-Chlorophenol	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2-Methylnaphthalene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2-Naphthylamine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2-Nitroaniline	01	SW8270E	<20.0 ug/L		20.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2-Nitrophenol	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
3,3'-Dichlorobenzidine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
3-Methylcholanthrene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
3-Nitroaniline	01	SW8270E	<20.0 ug/L		20.0	1	03/27/24 09:30	03/27/24 20:46	BMS



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

Laboratory Order ID: 24C1309

#### Analytical Results

Sample I.D. Terrace Water Corp	Laboratory Sample ID: 24C1309-01
Grab Date/Time: 03/23/2024 11:25	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Semivolatile Organic Compounds by GCMS</b>									
4,6-Dinitro-2-methylphenol	01	SW8270E	<50.0 ug/L		50.0	1	03/27/24 09:30	03/27/24 20:46	BMS
4-Aminobiphenyl	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
4-Bromophenyl phenyl ether	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
4-Chloroaniline	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
4-Chlorophenyl phenyl ether	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
4-Nitroaniline	01	SW8270E	<20.0 ug/L		20.0	1	03/27/24 09:30	03/27/24 20:46	BMS
4-Nitrophenol	01	SW8270E	<50.0 ug/L		50.0	1	03/27/24 09:30	03/27/24 20:46	BMS
7,12-Dimethylbenz (a) anthracene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Acenaphthene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Acenaphthylene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Acetophenone	01	SW8270E	<20.0 ug/L		20.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Aniline	01	SW8270E	<50.0 ug/L		50.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Anthracene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Benzidine	01	SW8270E	<50.0 ug/L		50.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Benzo (a) anthracene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Benzo (a) pyrene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Benzo (b) fluoranthene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Benzo (g,h,i) perylene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Benzo (k) fluoranthene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Benzoic acid	01	SW8270E	<50.0 ug/L		50.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Benzyl alcohol	01	SW8270E	<20.0 ug/L		20.0	1	03/27/24 09:30	03/27/24 20:46	BMS
bis (2-Chloroethoxy) methane	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
bis (2-Chloroethyl) ether	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
2,2'-Oxybis (1-chloropropane)	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
bis (2-Ethylhexyl) phthalate	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: March 28, 2024 14:35  
 Project Number: 4260155-001  
 Purchase Order: 4260155-001

Laboratory Order ID: 24C1309

#### Analytical Results

Sample I.D. Terrace Water Corp Laboratory Sample ID: 24C1309-01  
 Grab Date/Time: 03/23/2024 11:25  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Semivolatile Organic Compounds by GCMS</b>									
Butyl benzyl phthalate	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Chrysene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Dibenz (a,h) anthracene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Dibenz (a,j) acridine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Dibenzofuran	01	SW8270E	<5.00 ug/L		5.00	1	03/27/24 09:30	03/27/24 20:46	BMS
Diethyl phthalate	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Dimethyl phthalate	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Di-n-butyl phthalate	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Di-n-octyl phthalate	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Diphenylamine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Ethyl methanesulfonate	01	SW8270E	<20.0 ug/L		20.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Fluoranthene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Fluorene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Hexachlorobenzene	01	SW8270E	<1.00 ug/L		1.00	1	03/27/24 09:30	03/27/24 20:46	BMS
Hexachlorobutadiene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Hexachlorocyclopentadiene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Hexachloroethane	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Indeno (1,2,3-cd) pyrene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Isophorone	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
m+p-Cresols	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Methyl methanesulfonate	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Naphthalene	01	SW8270E	<5.00 ug/L		5.00	1	03/27/24 09:30	03/27/24 20:46	BMS
Nitrobenzene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
n-Nitrosodimethylamine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
n-Nitrosodi-n-butylamine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
n-Nitrosodi-n-propylamine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Laboratory Order ID: 24C1309

#### Analytical Results

Sample I.D. Terrace Water Corp	Laboratory Sample ID: 24C1309-01
Grab Date/Time: 03/23/2024 11:25	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Semivolatile Organic Compounds by GCMS</b>									
n-Nitrosodiphenylamine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
n-Nitrosopiperidine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
o+m+p-Cresols	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
o-Cresol	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
p-(Dimethylamino) azobenzene	01	SW8270E	<2.50 ug/L		2.50	1	03/27/24 09:30	03/27/24 20:46	BMS
p-Chloro-m-cresol	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Pentachloronitrobenzene (quintozene)	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Pentachlorophenol	01	SW8270E	<20.0 ug/L		20.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Phenacetin	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Phenanthrene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Phenol	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Pronamide	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Pyrene	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Pyridine	01	SW8270E	<10.0 ug/L		10.0	1	03/27/24 09:30	03/27/24 20:46	BMS
Surr: 2,4,6-Tribromophenol (Surr)	01	SW8270E	61.0 %		5-136		03/27/24 09:30	03/27/24 20:46	BMS
Surr: 2-Fluorobiphenyl (Surr)	01	SW8270E	62.9 %		9-117		03/27/24 09:30	03/27/24 20:46	BMS
Surr: 2-Fluorophenol (Surr)	01	SW8270E	31.6 %		5-60		03/27/24 09:30	03/27/24 20:46	BMS
Surr: Nitrobenzene-d5 (Surr)	01	SW8270E	61.0 %		5-151		03/27/24 09:30	03/27/24 20:46	BMS
Surr: Phenol-d5 (Surr)	01	SW8270E	21.5 %		5-60		03/27/24 09:30	03/27/24 20:46	BMS
Surr: p-Terphenyl-d14 (Surr)	01	SW8270E	72.8 %		5-141		03/27/24 09:30	03/27/24 20:46	BMS
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	01	SW8011	<0.010 ug/L		0.010	1	03/27/24 11:20	03/28/24 01:27	ATG
1,2,3-Trichloropropane	01	SW8011	<0.010 ug/L		0.010	1	03/27/24 11:20	03/28/24 01:27	ATG



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: March 28, 2024 14:35  
 Project Number: 4260155-001  
 Purchase Order: 4260155-001

Laboratory Order ID: 24C1309

### Analytical Results

Sample I.D. Terrace Water Corp Laboratory Sample ID: 24C1309-01  
 Grab Date/Time: 03/23/2024 11:25  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8011	<0.010 ug/L		0.010	1	03/27/24 11:20	03/28/24 01:27	ATG



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: March 28, 2024 14:35  
 8382 Terminal Rd, Bay B Project Number: 4260155-001  
 Lorton VA, 22079 Purchase Order: 4260155-001  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Laboratory Order ID: 24C1309

#### Analytical Results

Sample I.D. E.5222 Palmetto Bluff Rd Laboratory Sample ID: 24C1309-02  
 Grab Date/Time: 03/23/2024 12:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	03/26/24 17:25	03/26/24 17:25	RJB
1,1,1-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,1,2,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	03/26/24 17:25	03/26/24 17:25	RJB
1,1,2-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,1-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,1-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,1-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,2,3-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,2,3-Trichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,2,4-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,2,4-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,2-Dibromoethane (EDB)	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,2-Dichlorobenzene	02	SW8260D	<0.50 ug/L		0.50	1	03/26/24 17:25	03/26/24 17:25	RJB
1,2-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,2-Dichloropropane	02	SW8260D	<0.50 ug/L		0.50	1	03/26/24 17:25	03/26/24 17:25	RJB
1,3,5-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,3-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,3-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
1,4-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
2,2-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
2-Butanone (MEK)	02	SW8260D	<10.0 ug/L		10.0	1	03/26/24 17:25	03/26/24 17:25	RJB
2-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
2-Hexanone (MBK)	02	SW8260D	<5.00 ug/L		5.00	1	03/26/24 17:25	03/26/24 17:25	RJB
4-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: March 28, 2024 14:35  
 Project Number: 4260155-001  
 Purchase Order: 4260155-001

Laboratory Order ID: 24C1309

### Analytical Results

Sample I.D. E.5222 Palmetto Bluff Rd Laboratory Sample ID: 24C1309-02  
 Grab Date/Time: 03/23/2024 12:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
4-Methyl-2-pentanone (MIBK)	02	SW8260D	<5.00 ug/L		5.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Acetone	02	SW8260D	<10.0 ug/L		10.0	1	03/26/24 17:25	03/26/24 17:25	RJB
Benzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Bromobenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Bromochloromethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Bromodichloromethane	02	SW8260D	<0.50 ug/L		0.50	1	03/26/24 17:25	03/26/24 17:25	RJB
Bromoform	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Bromomethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Carbon disulfide	02	SW8260D	<10.0 ug/L		10.0	1	03/26/24 17:25	03/26/24 17:25	RJB
Carbon tetrachloride	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Chlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Chloroethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Chloroform	02	SW8260D	<0.50 ug/L		0.50	1	03/26/24 17:25	03/26/24 17:25	RJB
Chloromethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
cis-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
cis-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Dibromochloromethane	02	SW8260D	<0.50 ug/L		0.50	1	03/26/24 17:25	03/26/24 17:25	RJB
Dibromomethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Dichlorodifluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Di-isopropyl ether (DIPE)	02	SW8260D	<5.00 ug/L		5.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Ethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Hexachlorobutadiene	02	SW8260D	<0.80 ug/L		0.80	1	03/26/24 17:25	03/26/24 17:25	RJB
Iodomethane	02	SW8260D	<10.0 ug/L		10.0	1	03/26/24 17:25	03/26/24 17:25	RJB
Isopropylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
m+p-Xylenes	02	SW8260D	<2.00 ug/L		2.00	1	03/26/24 17:25	03/26/24 17:25	RJB



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

Laboratory Order ID: 24C1309

#### Analytical Results

Sample I.D. E.5222 Palmetto Bluff Rd	Laboratory Sample ID: 24C1309-02
Grab Date/Time: 03/23/2024 12:30	
Field Residual CI:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	02	SW8260D	<4.00 ug/L		4.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Methyl-t-butyl ether (MTBE)	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Naphthalene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
n-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
n-Propylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
o-Xylene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
sec-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Styrene	02	SW8260D	<1.00 ug/L	C	1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
tert-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Tetrachloroethylene (PCE)	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Toluene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
trans-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
trans-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Trichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Trichlorofluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Vinyl acetate	02	SW8260D	<10.0 ug/L		10.0	1	03/26/24 17:25	03/26/24 17:25	RJB
Vinyl chloride	02	SW8260D	<0.50 ug/L		0.50	1	03/26/24 17:25	03/26/24 17:25	RJB
Xylenes, Total	02	SW8260D	<3.00 ug/L		3.00	1	03/26/24 17:25	03/26/24 17:25	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	02	SW8260D	108 %		70-120		03/26/24 17:25	03/26/24 17:25	RJB
Surr: 4-Bromofluorobenzene (Surr)	02	SW8260D	93.8 %		75-120		03/26/24 17:25	03/26/24 17:25	RJB
Surr: Dibromofluoromethane (Surr)	02	SW8260D	90.0 %		70-130		03/26/24 17:25	03/26/24 17:25	RJB
Surr: Toluene-d8 (Surr)	02	SW8260D	103 %		70-130		03/26/24 17:25	03/26/24 17:25	RJB

#### Micro-extractables by GC/ECD





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

Laboratory Order ID: 24C1309

### Analytical Results

Sample I.D.	E,5222 Palmetto Bluff Rd	Laboratory Sample ID:	24C1309-02
Grab Date/Time:	03/23/2024 12:30	Field pH:	
Field Residual Cl:			

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	02	SW8011	<0.010 ug/L		0.010	1	03/27/24 11:20	03/28/24 01:49	ATG
1,2,3-Trichloropropane	02	SW8011	<0.010 ug/L		0.010	1	03/27/24 11:20	03/28/24 01:49	ATG
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8011	<0.010 ug/L		0.010	1	03/27/24 11:20	03/28/24 01:49	ATG



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: March 28, 2024 14:35  
 Project Number: 4260155-001  
 Purchase Order: 4260155-001

Laboratory Order ID: 24C1309

#### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24C1309-03  
 Grab Date/Time: 12/08/2023 12:10  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	03/26/24 15:43	03/26/24 15:43	RJB
1,1,1-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,1,2,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	03/26/24 15:43	03/26/24 15:43	RJB
1,1,2-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,1-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,1-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,1-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,2,3-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,2,3-Trichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,2,4-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,2,4-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,2-Dibromoethane (EDB)	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,2-Dichlorobenzene	03	SW8260D	<0.50 ug/L		0.50	1	03/26/24 15:43	03/26/24 15:43	RJB
1,2-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,2-Dichloropropane	03	SW8260D	<0.50 ug/L		0.50	1	03/26/24 15:43	03/26/24 15:43	RJB
1,3,5-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,3-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,3-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
1,4-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
2,2-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
2-Butanone (MEK)	03	SW8260D	<10.0 ug/L		10.0	1	03/26/24 15:43	03/26/24 15:43	RJB
2-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
2-Hexanone (MBK)	03	SW8260D	<5.00 ug/L		5.00	1	03/26/24 15:43	03/26/24 15:43	RJB
4-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

Laboratory Order ID: 24C1309

#### Analytical Results

Sample I.D. Trip Blank	Laboratory Sample ID: 24C1309-03
Grab Date/Time: 12/08/2023 12:10	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
4-Methyl-2-pentanone (MIBK)	03	SW8260D	<5.00 ug/L		5.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Acetone	03	SW8260D	<10.0 ug/L		10.0	1	03/26/24 15:43	03/26/24 15:43	RJB
Benzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Bromobenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Bromochloromethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Bromodichloromethane	03	SW8260D	<0.50 ug/L		0.50	1	03/26/24 15:43	03/26/24 15:43	RJB
Bromoform	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Bromomethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Carbon disulfide	03	SW8260D	<10.0 ug/L		10.0	1	03/26/24 15:43	03/26/24 15:43	RJB
Carbon tetrachloride	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Chlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Chloroethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Chloroform	03	SW8260D	<0.50 ug/L		0.50	1	03/26/24 15:43	03/26/24 15:43	RJB
Chloromethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
cis-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
cis-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Dibromochloromethane	03	SW8260D	<0.50 ug/L		0.50	1	03/26/24 15:43	03/26/24 15:43	RJB
Dibromomethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Dichlorodifluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Di-isopropyl ether (DIPE)	03	SW8260D	<5.00 ug/L		5.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Ethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Hexachlorobutadiene	03	SW8260D	<0.80 ug/L		0.80	1	03/26/24 15:43	03/26/24 15:43	RJB
Iodomethane	03	SW8260D	<10.0 ug/L		10.0	1	03/26/24 15:43	03/26/24 15:43	RJB
Isopropylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
m+p-Xylenes	03	SW8260D	<2.00 ug/L		2.00	1	03/26/24 15:43	03/26/24 15:43	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: March 28, 2024 14:35  
 Project Number: 4260155-001  
 Purchase Order: 4260155-001

Laboratory Order ID: 24C1309

### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24C1309-03  
 Grab Date/Time: 12/08/2023 12:10  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	03	SW8260D	<4.00 ug/L		4.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Methyl-t-butyl ether (MTBE)	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Naphthalene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
n-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
n-Propylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
o-Xylene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
sec-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Styrene	03	SW8260D	<1.00 ug/L	C	1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
tert-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Tetrachloroethylene (PCE)	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Toluene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
trans-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
trans-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Trichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Trichlorofluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Vinyl acetate	03	SW8260D	<10.0 ug/L		10.0	1	03/26/24 15:43	03/26/24 15:43	RJB
Vinyl chloride	03	SW8260D	<0.50 ug/L		0.50	1	03/26/24 15:43	03/26/24 15:43	RJB
Xylenes, Total	03	SW8260D	<3.00 ug/L		3.00	1	03/26/24 15:43	03/26/24 15:43	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	03	SW8260D	108 %		70-120		03/26/24 15:43	03/26/24 15:43	RJB
Surr: 4-Bromofluorobenzene (Surr)	03	SW8260D	94.7 %		75-120		03/26/24 15:43	03/26/24 15:43	RJB
Surr: Dibromofluoromethane (Surr)	03	SW8260D	91.7 %		70-130		03/26/24 15:43	03/26/24 15:43	RJB
Surr: Toluene-d8 (Surr)	03	SW8260D	100 %		70-130		03/26/24 15:43	03/26/24 15:43	RJB

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Analytical Summary

**Administrative**

**Preparation Method:**

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
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<b>Semivolatile Organic Compounds by GCMS</b>		<b>Preparation Method:</b>		<b>SW3510C/EPA600-MS</b>	
24C1309-01	1070 mL / 1.00 mL	SW8270E	BHC0977	SHC0989	AC40286

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
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<b>Volatile Organic Compounds by GCMS</b>		<b>Preparation Method:</b>		<b>SW5030B-MS</b>	
24C1309-01	5.00 mL / 5.00 mL	SW8260D	BHC0979	SHC0945	AC40288
24C1309-02	5.00 mL / 5.00 mL	SW8260D	BHC0979	SHC0945	AC40288
24C1309-03	5.00 mL / 5.00 mL	SW8260D	BHC0979	SHC0945	AC40288

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
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<b>Micro-extractables by GC/ECD</b>		<b>Preparation Method:</b>		<b>SW8011</b>	
24C1309-01	60.0 mL / 2.00 mL	SW8011	BHC1022	SHC1003	AB40295
24C1309-02	60.0 mL / 2.00 mL	SW8011	BHC1022	SHC1003	AB40295

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Semivolatile Organic Compounds by GCMS</b>			<b>Preparation Method:</b>		<b>SW3510C/EPA600-MS</b>
BHC0977-BLK1	1000 mL / 1.00 mL	SW8270E	BHC0977	SHC0989	AC40286
BHC0977-BS1	1000 mL / 1.00 mL	SW8270E	BHC0977	SHC0989	AC40286

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>			<b>Preparation Method:</b>		<b>SW5030B-MS</b>
BHC0979-BLK1	5.00 mL / 5.00 mL	SW8260D	BHC0979	SHC0945	AC40288
BHC0979-BLK2	5.00 mL / 5.00 mL	SW8260D	BHC0979	SHC0945	AC40288
BHC0979-BS1	5.00 mL / 5.00 mL	SW8260D	BHC0979	SHC0945	AC40288
BHC0979-BS2	5.00 mL / 5.00 mL	SW8260D	BHC0979	SHC0945	AC40288
BHC0979-DUP1	0.250 mL / 5.00 mL	SW8260D	BHC0979	SHC0945	AC40288
BHC0979-MS1	0.250 mL / 5.00 mL	SW8260D	BHC0979	SHC0945	AC40288

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Micro-extractables by GC/ECD</b>			<b>Preparation Method:</b>		<b>SW8011</b>
BHC1022-BLK1	60.0 mL / 2.00 mL	SW8011	BHC1022	SHC1003	AB40295
BHC1022-BS1	60.0 mL / 2.00 mL	SW8011	BHC1022	SHC1003	AB40295
BHC1022-MS1	60.0 mL / 2.00 mL	SW8011	BHC1022	SHC1003	AB40295
BHC1022-MSD1	60.0 mL / 2.00 mL	SW8011	BHC1022	SHC1003	AB40295



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

#### Blank (BHC0979-BLK1)

Prepared & Analyzed: 03/26/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,4-Dioxane	<80.0 ug/L	80.0	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chloroethyl vinyl ether	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Acetonitrile	<10.0 ug/L	10.0	ug/L							



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

##### Blank (BHC0979-BLK1)

Prepared & Analyzed: 03/26/2024

Acrolein	<10.0 ug/L	10.0	ug/L							
Acrylonitrile	<5.00 ug/L	5.00	ug/L							
Allyl chloride	<1.00 ug/L	1.00	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							
Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							
Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	<0.50 ug/L	0.50	ug/L							
Chloromethane	<1.00 ug/L	1.00	ug/L							
Chloroprene	<5.00 ug/L	5.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Cyclohexane	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethanol	<80.0 ug/L	80.0	ug/L							
Ethyl methacrylate	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Ethyl-t-butyl ether (ETBE)	<25.0 ug/L	25.0	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							
Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

##### Blank (BHC0979-BLK1)

Prepared & Analyzed: 03/26/2024

Methacrylonitrile	<1.50 ug/L	1.50	ug/L							
Methyl acetate	<4.00 ug/L	4.00	ug/L							
Methyl cyclohexane	<1.00 ug/L	1.00	ug/L							
Methyl methacrylate	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
Pentachloroethane	<10.0 ug/L	10.0	ug/L							
Propionitrile	<40.0 ug/L	40.0	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
TAAE	<5.00 ug/L	5.00	ug/L							
TAME	<5.00 ug/L	5.00	ug/L							
TBA	<100 ug/L	100	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
trans-1,4-Dichloro-2-butene	<4.00 ug/L	4.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							
Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
Diethyl ether	<5.00 ug/L	5.00	ug/L							
<hr/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	53.0		ug/L	50.0		106	70-120			
Surr: 4-Bromofluorobenzene (Surr)	47.4		ug/L	50.0		94.8	75-120			



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

##### Blank (BHC0979-BLK1)

Prepared & Analyzed: 03/26/2024

Surr: Dibromofluoromethane (Surr)	54.4		ug/L	50.0		109	70-130			
Surr: Toluene-d8 (Surr)	49.2		ug/L	50.0		98.4	70-130			

##### LCS (BHC0979-BS1)

Prepared & Analyzed: 03/26/2024

1,1,1,2-Tetrachloroethane	58.2 ug/L	0.4	ug/L	50.0	ug/L	116	80-130			
1,1,1-Trichloroethane	64.0 ug/L	1	ug/L	50.0	ug/L	128	65-130			
1,1,2,2-Tetrachloroethane	55.7 ug/L	0.4	ug/L	50.0	ug/L	111	65-130			
1,1,2-Trichloroethane	56.3 ug/L	1	ug/L	50.0	ug/L	113	75-125			
1,1-Dichloroethane	58.3 ug/L	1	ug/L	50.0	ug/L	117	70-135			
1,1-Dichloroethylene	57.2 ug/L	1	ug/L	50.0	ug/L	114	70-130			
1,1-Dichloropropene	61.2 ug/L	1	ug/L	50.0	ug/L	122	75-135			
1,2,3-Trichlorobenzene	56.5 ug/L	1	ug/L	50.0	ug/L	113	55-140			
1,2,3-Trichloropropane	55.3 ug/L	1	ug/L	50.0	ug/L	111	75-125			
1,2,4-Trichlorobenzene	55.0 ug/L	1	ug/L	50.0	ug/L	110	65-135			
1,2,4-Trimethylbenzene	63.6 ug/L	1	ug/L	50.0	ug/L	127	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	58.6 ug/L	1	ug/L	50.0	ug/L	117	50-130			
1,2-Dibromoethane (EDB)	58.0 ug/L	1	ug/L	50.0	ug/L	116	80-120			
1,2-Dichlorobenzene	57.8 ug/L	0.5	ug/L	50.0	ug/L	116	70-120			
1,2-Dichloroethane	51.2 ug/L	1	ug/L	50.0	ug/L	102	70-130			
1,2-Dichloropropane	60.5 ug/L	0.5	ug/L	50.0	ug/L	121	75-125			
1,3,5-Trimethylbenzene	59.9 ug/L	1	ug/L	50.0	ug/L	120	75-125			
1,3-Dichlorobenzene	58.1 ug/L	1	ug/L	50.0	ug/L	116	75-125			
1,3-Dichloropropane	52.6 ug/L	1	ug/L	50.0	ug/L	105	75-125			
1,4-Dichlorobenzene	55.3 ug/L	1	ug/L	50.0	ug/L	111	75-125			
2,2-Dichloropropane	59.0 ug/L	1	ug/L	50.0	ug/L	118	70-135			
2-Butanone (MEK)	48.3 ug/L	10	ug/L	50.0	ug/L	96.6	30-150			
2-Chlorotoluene	58.9 ug/L	1	ug/L	50.0	ug/L	118	75-125			
2-Hexanone (MBK)	51.2 ug/L	5	ug/L	50.0	ug/L	102	55-130			
4-Chlorotoluene	60.2 ug/L	1	ug/L	50.0	ug/L	120	75-130			
4-Isopropyltoluene	64.5 ug/L	1	ug/L	50.0	ug/L	129	75-130			
4-Methyl-2-pentanone (MIBK)	50.0 ug/L	5	ug/L	50.0	ug/L	100	60-135			
Acetone	44.3 ug/L	10	ug/L	50.0	ug/L	88.5	40-140			



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## Certificate of Analysis

### Final Report

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Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

#### LCS (BHC0979-BS1)

Prepared & Analyzed: 03/26/2024

Benzene	57.4 ug/L	1	ug/L	50.0	ug/L	115	80-120			
Bromobenzene	58.3 ug/L	1	ug/L	50.0	ug/L	117	75-125			
Bromochloromethane	51.6 ug/L	1	ug/L	50.0	ug/L	103	65-130			
Bromodichloromethane	58.8 ug/L	0.5	ug/L	50.0	ug/L	118	75-120			
Bromoform	54.4 ug/L	1	ug/L	50.0	ug/L	109	70-130			
Bromomethane	48.9 ug/L	1	ug/L	50.0	ug/L	97.8	30-145			
Carbon disulfide	48.1 ug/L	10	ug/L	50.0	ug/L	96.3	35-160			
Carbon tetrachloride	62.3 ug/L	1	ug/L	50.0	ug/L	125	65-140			
Chlorobenzene	59.2 ug/L	1	ug/L	50.0	ug/L	118	80-120			
Chloroethane	58.9 ug/L	1	ug/L	50.0	ug/L	118	60-135			
Chloroform	52.9 ug/L	0.5	ug/L	50.0	ug/L	106	65-135			
Chloromethane	61.3 ug/L	1	ug/L	50.0	ug/L	123	40-125			
cis-1,2-Dichloroethylene	52.8 ug/L	1	ug/L	50.0	ug/L	106	70-125			
cis-1,3-Dichloropropene	59.5 ug/L	1	ug/L	50.0	ug/L	119	70-130			
Dibromochloromethane	54.8 ug/L	0.5	ug/L	50.0	ug/L	110	60-135			
Dibromomethane	57.6 ug/L	1	ug/L	50.0	ug/L	115	75-125			
Dichlorodifluoromethane	74.9 ug/L	1	ug/L	50.0	ug/L	150	30-155			
Ethylbenzene	61.0 ug/L	1	ug/L	50.0	ug/L	122	75-125			
Hexachlorobutadiene	57.5 ug/L	0.8	ug/L	50.0	ug/L	115	50-140			
Isopropylbenzene	57.7 ug/L	1	ug/L	50.0	ug/L	115	75-125			
m+p-Xylenes	123 ug/L	2	ug/L	100	ug/L	123	75-130			
Methylene chloride	52.5 ug/L	4	ug/L	50.0	ug/L	105	55-140			
Methyl-t-butyl ether (MTBE)	49.6 ug/L	1	ug/L	50.0	ug/L	99.3	65-125			
Naphthalene	55.4 ug/L	1	ug/L	50.0	ug/L	111	55-140			
n-Butylbenzene	66.5 ug/L	1	ug/L	50.0	ug/L	133	70-135			
n-Propylbenzene	61.8 ug/L	1	ug/L	50.0	ug/L	124	70-130			
o-Xylene	59.3 ug/L	1	ug/L	50.0	ug/L	119	80-120			
sec-Butylbenzene	68.7 ug/L	1	ug/L	50.0	ug/L	137	70-125			L
Styrene	47.2 ug/L	1	ug/L	50.0	ug/L	94.3	65-135			
tert-Butylbenzene	63.2 ug/L	1	ug/L	50.0	ug/L	126	70-130			
Tetrachloroethylene (PCE)	65.4 ug/L	1	ug/L	50.0	ug/L	131	45-150			



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## Certificate of Analysis

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Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

##### LCS (BHC0979-BS1)

Prepared & Analyzed: 03/26/2024

Toluene	56.8 ug/L	1	ug/L	50.0	ug/L	114	75-120			
trans-1,2-Dichloroethylene	56.6 ug/L	1	ug/L	50.0	ug/L	113	60-140			
trans-1,3-Dichloropropene	63.4 ug/L	1	ug/L	50.0	ug/L	127	55-140			
Trichloroethylene	58.7 ug/L	1	ug/L	50.0	ug/L	117	70-125			
Trichlorofluoromethane	64.2 ug/L	1	ug/L	50.0	ug/L	128	60-145			
Vinyl chloride	60.6 ug/L	0.5	ug/L	50.0	ug/L	121	50-145			
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Surr: 1,2-Dichloroethane-d4 (Surr)	51.3		ug/L	50.0	ug/L	103	70-120			
Surr: 4-Bromofluorobenzene (Surr)	49.7		ug/L	50.0	ug/L	99.3	75-120			
Surr: Dibromofluoromethane (Surr)	50.7		ug/L	50.0	ug/L	101	70-130			
Surr: Toluene-d8 (Surr)	48.5		ug/L	50.0	ug/L	97.0	70-130			

##### Duplicate (BHC0979-DUP1)

Source: 24C1252-01

Prepared & Analyzed: 03/26/2024

1,1,1,2-Tetrachloroethane	<8.00 ug/L	8.00	ug/L	<8.00	ug/L			NA	30	
1,1,1-Trichloroethane	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,1,1,2,2-Tetrachloroethane	<8.00 ug/L	8.00	ug/L	<8.00	ug/L			NA	30	
1,1,2-Trichloroethane	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,1-Dichloroethane	20.4 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,1-Dichloroethylene	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,1-Dichloropropene	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,2,3-Trichlorobenzene	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,2,3-Trichloropropane	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,2,4-Trichlorobenzene	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,2,4-Trimethylbenzene	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,2-Dibromo-3-chloropropane (DBCP)	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,2-Dibromoethane (EDB)	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,2-Dichlorobenzene	<10.0 ug/L	10.0	ug/L	<10.0	ug/L			NA	30	
1,2-Dichloroethane	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,2-Dichloropropane	<10.0 ug/L	10.0	ug/L	<10.0	ug/L			NA	30	
1,3,5-Trimethylbenzene	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,3-Dichlorobenzene	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,3-Dichloropropane	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	
1,4-Dichlorobenzene	<20.0 ug/L	20.0	ug/L	<20.0	ug/L			NA	30	



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## Certificate of Analysis

### Final Report

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Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

##### Duplicate (BHC0979-DUP1)

Source: 24C1252-01

Prepared & Analyzed: 03/26/2024

1,4-Dioxane	<1600 ug/L	1600	ug/L	<1600 ug/L				NA	30	
2,2-Dichloropropane	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
2-Butanone (MEK)	<200 ug/L	200	ug/L	<200 ug/L				NA	30	
2-Chloroethyl vinyl ether	<200 ug/L	200	ug/L	<200 ug/L				NA	30	
2-Chlorotoluene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
2-Hexanone (MBK)	<100 ug/L	100	ug/L	<100 ug/L				NA	30	
4-Chlorotoluene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
4-Isopropyltoluene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
4-Methyl-2-pentanone (MIBK)	<100 ug/L	100	ug/L	<100 ug/L				NA	30	
Acetone	<200 ug/L	200	ug/L	<200 ug/L				NA	30	
Acetonitrile	<200 ug/L	200	ug/L	<200 ug/L				NA	30	
Acrolein	<200 ug/L	200	ug/L	<200 ug/L				NA	30	
Acrylonitrile	<100 ug/L	100	ug/L	<100 ug/L				NA	30	
Allyl chloride	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Benzene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Bromobenzene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Bromochloromethane	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Bromodichloromethane	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Bromoform	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Bromomethane	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Carbon disulfide	<200 ug/L	200	ug/L	<200 ug/L				NA	30	
Carbon tetrachloride	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Chlorobenzene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Chloroethane	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Chloroform	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Chloromethane	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Chloroprene	<100 ug/L	100	ug/L	<100 ug/L				NA	30	
cis-1,2-Dichloroethylene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
cis-1,3-Dichloropropene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Cyclohexane	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Dibromochloromethane	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	



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## Certificate of Analysis

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Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

Duplicate (BHC0979-DUP1)	Source: 24C1252-01			Prepared & Analyzed: 03/26/2024						
Dibromomethane	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Dichlorodifluoromethane	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Di-isopropyl ether (DIPE)	<100 ug/L	100	ug/L	<100 ug/L				NA	30	
Ethanol	<1600 ug/L	1600	ug/L	<1600 ug/L				NA	30	
Ethyl methacrylate	<100 ug/L	100	ug/L	<100 ug/L				NA	30	
Ethylbenzene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Ethyl-t-butyl ether (ETBE)	<500 ug/L	500	ug/L	<500 ug/L				NA	30	
Hexachlorobutadiene	<16.0 ug/L	16.0	ug/L	<16.0 ug/L				NA	30	
Iodomethane	<200 ug/L	200	ug/L	<200 ug/L				NA	30	
Isopropylbenzene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
m+p-Xylenes	<40.0 ug/L	40.0	ug/L	<40.0 ug/L				NA	30	
Methacrylonitrile	<30.0 ug/L	30.0	ug/L	<30.0 ug/L				NA	30	
Methyl acetate	<80.0 ug/L	80.0	ug/L	<80.0 ug/L				NA	30	
Methyl cyclohexane	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Methyl methacrylate	<40.0 ug/L	40.0	ug/L	<40.0 ug/L				NA	30	
Methylene chloride	<80.0 ug/L	80.0	ug/L	<80.0 ug/L				NA	30	
Methyl-t-butyl ether (MTBE)	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Naphthalene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
n-Butylbenzene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
n-Propylbenzene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
o-Xylene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Pentachloroethane	<200 ug/L	200	ug/L	<200 ug/L				NA	30	
Propionitrile	<800 ug/L	800	ug/L	<800 ug/L				NA	30	
sec-Butylbenzene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Styrene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
TAAE	<100 ug/L	100	ug/L	<100 ug/L				NA	30	
TAME	<100 ug/L	100	ug/L	<100 ug/L				NA	30	
TBA	<2000 ug/L	2000	ug/L	<2000 ug/L				NA	30	
tert-Butylbenzene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Tetrachloroethylene (PCE)	<20.0 ug/L	20.0	ug/L	<20.0 ug/L				NA	30	
Toluene	481 ug/L	20.0	ug/L	489 ug/L				1.65	30	

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Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

##### Duplicate (BHC0979-DUP1)

Source: 24C1252-01

Prepared &amp; Analyzed: 03/26/2024

trans-1,2-Dichloroethylene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L			NA	30	
trans-1,3-Dichloropropene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L			NA	30	
trans-1,4-Dichloro-2-butene	<80.0 ug/L	80.0	ug/L	<80.0 ug/L			NA	30	
Trichloroethylene	<20.0 ug/L	20.0	ug/L	<20.0 ug/L			NA	30	
Trichlorofluoromethane	<20.0 ug/L	20.0	ug/L	<20.0 ug/L			NA	30	
Vinyl acetate	<200 ug/L	200	ug/L	<200 ug/L			NA	30	
Vinyl chloride	<10.0 ug/L	10.0	ug/L	<10.0 ug/L			NA	30	
Xylenes, Total	<60.0 ug/L	60.0	ug/L	<60.0 ug/L			NA	30	
Tetrahydrofuran	<200 ug/L	200	ug/L	<200 ug/L			NA	30	
Diethyl ether	<100 ug/L	100	ug/L	<100 ug/L			NA	30	
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Surr: 1,2-Dichloroethane-d4 (Surr)	53.3		ug/L	50.0 ug/L	107	70-120			
Surr: 4-Bromofluorobenzene (Surr)	46.6		ug/L	50.0 ug/L	93.2	75-120			
Surr: Dibromofluoromethane (Surr)	51.2		ug/L	50.0 ug/L	102	70-130			
Surr: Toluene-d8 (Surr)	49.9		ug/L	50.0 ug/L	99.9	70-130			

##### Matrix Spike (BHC0979-MS1)

Source: 24C1252-01

Prepared &amp; Analyzed: 03/26/2024

1,1,1,2-Tetrachloroethane	57.0 ug/L	0.4	ug/L	50.0	<0.4 ug/L	114	80-130		
1,1,1-Trichloroethane	57.6 ug/L	1	ug/L	50.0	<1 ug/L	115	65-130		
1,1,2,2-Tetrachloroethane	54.8 ug/L	0.4	ug/L	50.0	<0.4 ug/L	110	65-130		
1,1,2-Trichloroethane	55.4 ug/L	1	ug/L	50.0	<1 ug/L	111	75-125		
1,1-Dichloroethane	54.4 ug/L	1	ug/L	50.0	<1 ug/L	107	70-135		
1,1-Dichloroethylene	54.6 ug/L	1	ug/L	50.0	<1 ug/L	109	50-145		
1,1-Dichloropropene	56.2 ug/L	1	ug/L	50.0	<1 ug/L	112	75-135		
1,2,3-Trichlorobenzene	57.2 ug/L	1	ug/L	50.0	<1 ug/L	114	55-140		
1,2,3-Trichloropropane	55.2 ug/L	1	ug/L	50.0	<1 ug/L	110	75-125		
1,2,4-Trichlorobenzene	56.0 ug/L	1	ug/L	50.0	<1 ug/L	112	65-135		
1,2,4-Trimethylbenzene	63.0 ug/L	1	ug/L	50.0	<1 ug/L	126	75-130		
1,2-Dibromo-3-chloropropane (DBCP)	60.6 ug/L	1	ug/L	50.0	<1 ug/L	121	50-130		
1,2-Dibromoethane (EDB)	56.8 ug/L	1	ug/L	50.0	<1 ug/L	114	80-120		
1,2-Dichlorobenzene	58.9 ug/L	0.5	ug/L	50.0	<0.5 ug/L	118	70-120		
1,2-Dichloroethane	49.5 ug/L	1	ug/L	50.0	<1 ug/L	99.0	70-130		
1,2-Dichloropropane	57.3 ug/L	0.5	ug/L	50.0	<0.5 ug/L	115	75-125		

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

##### Matrix Spike (BHC0979-MS1)

Source: 24C1252-01

Prepared &amp; Analyzed: 03/26/2024

1,3,5-Trimethylbenzene	59.8 ug/L	1	ug/L	50.0	<1 ug/L	120	75-124		
1,3-Dichlorobenzene	58.1 ug/L	1	ug/L	50.0	<1 ug/L	116	75-125		
1,3-Dichloropropane	51.6 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125		
1,4-Dichlorobenzene	56.0 ug/L	1	ug/L	50.0	<1 ug/L	112	75-125		
2,2-Dichloropropane	53.5 ug/L	1	ug/L	50.0	<1 ug/L	107	70-135		
2-Butanone (MEK)	46.9 ug/L	10	ug/L	50.0	<10 ug/L	93.9	30-150		
2-Chlorotoluene	59.1 ug/L	1	ug/L	50.0	<1 ug/L	118	75-125		
2-Hexanone (MBK)	55.7 ug/L	5	ug/L	50.0	<5 ug/L	111	55-130		
4-Chlorotoluene	59.7 ug/L	1	ug/L	50.0	<1 ug/L	119	75-130		
4-Isopropyltoluene	65.3 ug/L	1	ug/L	50.0	<1 ug/L	131	75-130		M
4-Methyl-2-pentanone (MIBK)	52.1 ug/L	5	ug/L	50.0	<5 ug/L	104	60-135		
Acetone	50.5 ug/L	10	ug/L	50.0	<10 ug/L	82.2	40-140		
Benzene	55.3 ug/L	1	ug/L	50.0	<1 ug/L	111	80-120		
Bromobenzene	56.8 ug/L	1	ug/L	50.0	<1 ug/L	114	75-125		
Bromochloromethane	47.9 ug/L	1	ug/L	50.0	<1 ug/L	95.8	65-130		
Bromodichloromethane	56.3 ug/L	0.5	ug/L	50.0	<0.5 ug/L	113	75-136		
Bromoform	53.6 ug/L	1	ug/L	50.0	<1 ug/L	107	70-130		
Bromomethane	51.4 ug/L	1	ug/L	50.0	<1 ug/L	103	30-145		
Carbon disulfide	58.8 ug/L	10	ug/L	50.0	<10 ug/L	118	35-160		
Carbon tetrachloride	56.5 ug/L	1	ug/L	50.0	<1 ug/L	113	65-140		
Chlorobenzene	57.4 ug/L	1	ug/L	50.0	<1 ug/L	115	80-120		
Chloroethane	52.8 ug/L	1	ug/L	50.0	<1 ug/L	106	60-135		
Chloroform	48.9 ug/L	0.5	ug/L	50.0	<0.5 ug/L	97.7	65-135		
Chloromethane	65.8 ug/L	1	ug/L	50.0	<1 ug/L	132	40-125		M
cis-1,2-Dichloroethylene	50.5 ug/L	1	ug/L	50.0	<1 ug/L	101	70-125		
cis-1,3-Dichloropropene	58.6 ug/L	1	ug/L	50.0	<1 ug/L	117	47-136		
Dibromochloromethane	55.5 ug/L	0.5	ug/L	50.0	<0.5 ug/L	111	60-135		
Dibromomethane	55.2 ug/L	1	ug/L	50.0	<1 ug/L	110	75-125		
Dichlorodifluoromethane	69.7 ug/L	1	ug/L	50.0	<1 ug/L	139	30-155		
Ethylbenzene	60.5 ug/L	1	ug/L	50.0	<1 ug/L	121	75-125		
Hexachlorobutadiene	57.7 ug/L	0.8	ug/L	50.0	<0.8 ug/L	115	50-140		





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0979 - SW5030B-MS

Matrix Spike (BHC0979-MS1)	Source: 24C1252-01			Prepared & Analyzed: 03/26/2024						
Isopropylbenzene	56.5 ug/L	1	ug/L	50.0	<1 ug/L	113	75-125			
m+p-Xylenes	117 ug/L	2	ug/L	100	<2 ug/L	117	75-130			
Methylene chloride	52.2 ug/L	4	ug/L	50.0	<4 ug/L	103	55-140			
Methyl-t-butyl ether (MTBE)	47.0 ug/L	1	ug/L	50.0	<1 ug/L	94.1	65-125			
Naphthalene	56.4 ug/L	1	ug/L	50.0	<1 ug/L	113	55-140			
n-Butylbenzene	65.1 ug/L	1	ug/L	50.0	<1 ug/L	130	70-135			
n-Propylbenzene	60.8 ug/L	1	ug/L	50.0	<1 ug/L	122	70-130			
o-Xylene	60.6 ug/L	1	ug/L	50.0	<1 ug/L	121	80-120			M
sec-Butylbenzene	67.1 ug/L	1	ug/L	50.0	<1 ug/L	134	70-125			M
Styrene	46.4 ug/L	1	ug/L	50.0	<1 ug/L	92.9	65-135			
tert-Butylbenzene	62.2 ug/L	1	ug/L	50.0	<1 ug/L	124	70-130			
Tetrachloroethylene (PCE)	62.0 ug/L	1	ug/L	50.0	<1 ug/L	124	51-231			
Toluene	79.8 ug/L	1	ug/L	50.0	24.4 ug/L	111	75-120			
trans-1,2-Dichloroethylene	50.6 ug/L	1	ug/L	50.0	<1 ug/L	101	60-140			
trans-1,3-Dichloropropene	62.4 ug/L	1	ug/L	50.0	<1 ug/L	125	55-140			
Trichloroethylene	55.7 ug/L	1	ug/L	50.0	<1 ug/L	111	70-125			
Trichlorofluoromethane	60.7 ug/L	1	ug/L	50.0	<1 ug/L	121	60-145			
Vinyl chloride	55.2 ug/L	0.5	ug/L	50.0	<0.5 ug/L	110	50-145			
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Surr: 1,2-Dichloroethane-d4 (Surr)	50.3		ug/L	50.0	ug/L	101	70-120			
Surr: 4-Bromofluorobenzene (Surr)	49.7		ug/L	50.0	ug/L	99.4	75-120			
Surr: Dibromofluoromethane (Surr)	49.8		ug/L	50.0	ug/L	99.7	70-130			
Surr: Toluene-d8 (Surr)	49.6		ug/L	50.0	ug/L	99.2	70-130			



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Semivolatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0977 - SW3510C/EPA600-MS

#### Blank (BHC0977-BLK1)

Prepared: 03/26/2024 Analyzed: 03/27/2024

1,2,4,5-Tetrachlorobenzene	<10.0 ug/L	10.0	ug/L							
1,2,4-Trichlorobenzene	<10.0 ug/L	10.0	ug/L							
1,2-Dichlorobenzene	<10.0 ug/L	10.0	ug/L							
1,2-Diphenylhydrazine	<10.0 ug/L	10.0	ug/L							
1,3-Dichlorobenzene	<10.0 ug/L	10.0	ug/L							
1,3-Dinitrobenzene	<2.50 ug/L	2.50	ug/L							
1,4-Dichlorobenzene	<10.0 ug/L	10.0	ug/L							
1-Naphthylamine	<10.0 ug/L	10.0	ug/L							
2,3,4,6-Tetrachlorophenol	<10.0 ug/L	10.0	ug/L							
2,4,5-Trichlorophenol	<10.0 ug/L	10.0	ug/L							
2,4,6-Trichlorophenol	<10.0 ug/L	10.0	ug/L							
2,4-Dichlorophenol	<10.0 ug/L	10.0	ug/L							
2,4-Dimethylphenol	<5.00 ug/L	5.00	ug/L							
2,4-Dinitrophenol	<50.0 ug/L	50.0	ug/L							
2,4-Dinitrotoluene	<10.0 ug/L	10.0	ug/L							
2,6-Dichlorophenol	<10.0 ug/L	10.0	ug/L							
2,6-Dinitrotoluene	<10.0 ug/L	10.0	ug/L							
2-Chloronaphthalene	<10.0 ug/L	10.0	ug/L							
2-Chlorophenol	<10.0 ug/L	10.0	ug/L							
2-Methylnaphthalene	<10.0 ug/L	10.0	ug/L							
2-Naphthylamine	<10.0 ug/L	10.0	ug/L							
2-Nitroaniline	<20.0 ug/L	20.0	ug/L							
2-Nitrophenol	<10.0 ug/L	10.0	ug/L							
3,3'-Dichlorobenzidine	<10.0 ug/L	10.0	ug/L							
3-Methylcholanthrene	<10.0 ug/L	10.0	ug/L							
3-Nitroaniline	<20.0 ug/L	20.0	ug/L							
4,6-Dinitro-2-methylphenol	<50.0 ug/L	50.0	ug/L							
4-Aminobiphenyl	<10.0 ug/L	10.0	ug/L							
4-Bromophenyl phenyl ether	<10.0 ug/L	10.0	ug/L							
4-Chloroaniline	<10.0 ug/L	10.0	ug/L							
4-Chlorophenyl phenyl ether	<10.0 ug/L	10.0	ug/L							



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## Certificate of Analysis

### Final Report

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 8382 Terminal Rd, Bay B Project Number: 4260155-001  
 Lorton VA, 22079 Purchase Order: 4260155-001  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

### Semivolatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0977 - SW3510C/EPA600-MS

##### Blank (BHC0977-BLK1)

Prepared: 03/26/2024 Analyzed: 03/27/2024

4-Nitroaniline	<20.0 ug/L	20.0	ug/L							
4-Nitrophenol	<50.0 ug/L	50.0	ug/L							
7,12-Dimethylbenz (a) anthracene	<10.0 ug/L	10.0	ug/L							
Acenaphthene	<10.0 ug/L	10.0	ug/L							
Acenaphthylene	<10.0 ug/L	10.0	ug/L							
Acetophenone	<20.0 ug/L	20.0	ug/L							
Aniline	<50.0 ug/L	50.0	ug/L							
Anthracene	<10.0 ug/L	10.0	ug/L							
Benzidine	<50.0 ug/L	50.0	ug/L							
Benzo (a) anthracene	<10.0 ug/L	10.0	ug/L							
Benzo (a) pyrene	<10.0 ug/L	10.0	ug/L							
Benzo (b) fluoranthene	<10.0 ug/L	10.0	ug/L							
Benzo (g,h,i) perylene	<10.0 ug/L	10.0	ug/L							
Benzo (k) fluoranthene	<10.0 ug/L	10.0	ug/L							
Benzoic acid	<50.0 ug/L	50.0	ug/L							
Benzyl alcohol	<20.0 ug/L	20.0	ug/L							
bis (2-Chloroethoxy) methane	<10.0 ug/L	10.0	ug/L							
bis (2-Chloroethyl) ether	<10.0 ug/L	10.0	ug/L							
2,2'-Oxybis (1-chloropropane)	<10.0 ug/L	10.0	ug/L							
bis (2-Ethylhexyl) phthalate	<10.0 ug/L	10.0	ug/L							
Butyl benzyl phthalate	<10.0 ug/L	10.0	ug/L							
Chrysene	<10.0 ug/L	10.0	ug/L							
Dibenz (a,h) anthracene	<10.0 ug/L	10.0	ug/L							
Dibenz (a,j) acridine	<10.0 ug/L	10.0	ug/L							
Dibenzofuran	<5.00 ug/L	5.00	ug/L							
Diethyl phthalate	<10.0 ug/L	10.0	ug/L							
Dimethyl phthalate	<10.0 ug/L	10.0	ug/L							
Di-n-butyl phthalate	<10.0 ug/L	10.0	ug/L							
Di-n-octyl phthalate	<10.0 ug/L	10.0	ug/L							
Diphenylamine	<10.0 ug/L	10.0	ug/L							
Ethyl methanesulfonate	<20.0 ug/L	20.0	ug/L							



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Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Semivolatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0977 - SW3510C/EPA600-MS

#### Blank (BHC0977-BLK1)

Prepared: 03/26/2024 Analyzed: 03/27/2024

Fluoranthene	<10.0 ug/L	10.0	ug/L							
Fluorene	<10.0 ug/L	10.0	ug/L							
Hexachlorobenzene	<1.00 ug/L	1.00	ug/L							
Hexachlorobutadiene	<10.0 ug/L	10.0	ug/L							
Hexachlorocyclopentadiene	<10.0 ug/L	10.0	ug/L							
Hexachloroethane	<10.0 ug/L	10.0	ug/L							
Indeno (1,2,3-cd) pyrene	<10.0 ug/L	10.0	ug/L							
Isophorone	<10.0 ug/L	10.0	ug/L							
m+p-Cresols	<10.0 ug/L	10.0	ug/L							
Methyl methanesulfonate	<10.0 ug/L	10.0	ug/L							
Naphthalene	<5.00 ug/L	5.00	ug/L							
Nitrobenzene	<10.0 ug/L	10.0	ug/L							
n-Nitrosodimethylamine	<10.0 ug/L	10.0	ug/L							
n-Nitrosodi-n-butylamine	<10.0 ug/L	10.0	ug/L							
n-Nitrosodi-n-propylamine	<10.0 ug/L	10.0	ug/L							
n-Nitrosodiphenylamine	<10.0 ug/L	10.0	ug/L							
n-Nitrosopiperidine	<10.0 ug/L	10.0	ug/L							
o+m+p-Cresols	<10.0 ug/L	10.0	ug/L							
o-Cresol	<10.0 ug/L	10.0	ug/L							
p-(Dimethylamino) azobenzene	<2.50 ug/L	2.50	ug/L							
p-Chloro-m-cresol	<10.0 ug/L	10.0	ug/L							
Pentachloronitrobenzene (quintozene)	<10.0 ug/L	10.0	ug/L							
Pentachlorophenol	<20.0 ug/L	20.0	ug/L							
Phenacetin	<10.0 ug/L	10.0	ug/L							
Phenanthrene	<10.0 ug/L	10.0	ug/L							
Phenol	<10.0 ug/L	10.0	ug/L							
Pronamide	<10.0 ug/L	10.0	ug/L							
Pyrene	<10.0 ug/L	10.0	ug/L							
Pyridine	<10.0 ug/L	10.0	ug/L							
Surr: 2,4,6-Tribromophenol (Surr)	71.7		ug/L	100		71.7	5-136			
Surr: 2-Fluorobiphenyl (Surr)	41.5		ug/L	50.0		83.0	9-117			



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## Certificate of Analysis

### Final Report

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 8382 Terminal Rd, Bay B Project Number: 4260155-001  
 Lorton VA, 22079 Purchase Order: 4260155-001  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

### Semivolatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0977 - SW3510C/EPA600-MS

##### Blank (BHC0977-BLK1)

Prepared: 03/26/2024 Analyzed: 03/27/2024

Surr: 2-Fluorophenol (Surr)	43.6		ug/L	100		43.6	5-60			
Surr: Nitrobenzene-d5 (Surr)	36.9		ug/L	50.0		73.9	5-151			
Surr: Phenol-d5 (Surr)	30.5		ug/L	100		30.5	5-60			
Surr: p-Terphenyl-d14 (Surr)	52.8		ug/L	50.0		106	5-141			

##### LCS (BHC0977-BS1)

Prepared: 03/26/2024 Analyzed: 03/27/2024

1,2,4-Trichlorobenzene	29.2 ug/L	10.0	ug/L	50.0	ug/L	58.3	57-130			
1,2-Dichlorobenzene	26.7 ug/L	10.0	ug/L	50.0	ug/L	53.5	22-115			
1,3-Dichlorobenzene	25.2 ug/L	10.0	ug/L	50.0	ug/L	50.5	22-112			
1,4-Dichlorobenzene	28.3 ug/L	10.0	ug/L	50.0	ug/L	56.6	13-112			
2,4,6-Trichlorophenol	35.4 ug/L	10.0	ug/L	50.0	ug/L	70.8	52-129			
2,4-Dichlorophenol	32.2 ug/L	10.0	ug/L	50.0	ug/L	64.5	53-122			
2,4-Dimethylphenol	42.4 ug/L	5.00	ug/L	50.0	ug/L	84.7	42-120			
2,4-Dinitrophenol	<50.0 ug/L	50.0	ug/L	50.0	ug/L	64.8	48-127			
2,4-Dinitrotoluene	40.0 ug/L	10.0	ug/L	50.0	ug/L	80.0	10-173			
2,6-Dinitrotoluene	36.1 ug/L	10.0	ug/L	50.0	ug/L	72.1	68-137			
2-Chloronaphthalene	35.7 ug/L	10.0	ug/L	50.0	ug/L	71.3	65-120			
2-Chlorophenol	31.7 ug/L	10.0	ug/L	50.0	ug/L	63.4	36-120			
2-Nitrophenol	33.2 ug/L	10.0	ug/L	50.0	ug/L	66.4	45-167			
3,3'-Dichlorobenzidine	20.5 ug/L	10.0	ug/L	50.0	ug/L	41.0	10-213			
4,6-Dinitro-2-methylphenol	<50.0 ug/L	50.0	ug/L	50.0	ug/L	76.1	53-130			
4-Bromophenyl phenyl ether	36.8 ug/L	10.0	ug/L	50.0	ug/L	73.6	65-120			
4-Chlorophenyl phenyl ether	37.6 ug/L	10.0	ug/L	50.0	ug/L	75.2	38-145			
4-Nitrophenol	<50.0 ug/L	50.0	ug/L	50.0	ug/L	33.5	13-129			
Acenaphthene	41.0 ug/L	10.0	ug/L	50.0	ug/L	82.0	60-132			
Acenaphthylene	43.5 ug/L	10.0	ug/L	50.0	ug/L	87.0	54-126			
Acetophenone	33.3 ug/L	20.0	ug/L	50.0	ug/L	66.5	0-200			
Anthracene	51.2 ug/L	10.0	ug/L	50.0	ug/L	102	43-120			
Benzo (a) anthracene	39.6 ug/L	10.0	ug/L	50.0	ug/L	79.2	42-133			
Benzo (a) pyrene	41.6 ug/L	10.0	ug/L	50.0	ug/L	83.1	32-148			
Benzo (b) fluoranthene	41.6 ug/L	10.0	ug/L	50.0	ug/L	83.2	42-140			
Benzo (g,h,i) perylene	39.1 ug/L	10.0	ug/L	50.0	ug/L	78.2	10-195			



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: March 28, 2024 14:35  
 8382 Terminal Rd, Bay B Project Number: 4260155-001  
 Lorton VA, 22079 Purchase Order: 4260155-001  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

### Semivolatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0977 - SW3510C/EPA600-MS

##### LCS (BHC0977-BS1)

Prepared: 03/26/2024 Analyzed: 03/27/2024

Benzo (k) fluoranthene	50.1 ug/L	10.0	ug/L	50.0	ug/L	100	25-146			
bis (2-Chloroethoxy) methane	40.6 ug/L	10.0	ug/L	50.0	ug/L	81.1	49-165			
bis (2-Chloroethyl) ether	34.9 ug/L	10.0	ug/L	50.0	ug/L	69.7	43-126			
2,2'-Oxybis (1-chloropropane)	32.2 ug/L	10.0	ug/L	50.0	ug/L	64.5	63-139			
bis (2-Ethylhexyl) phthalate	45.0 ug/L	10.0	ug/L	50.0	ug/L	89.9	29-137			
Butyl benzyl phthalate	39.0 ug/L	10.0	ug/L	50.0	ug/L	78.1	10-140			
Chrysene	48.0 ug/L	10.0	ug/L	50.0	ug/L	96.0	44-140			
Dibenz (a,h) anthracene	39.9 ug/L	10.0	ug/L	50.0	ug/L	79.8	10-200			
Diethyl phthalate	39.8 ug/L	10.0	ug/L	50.0	ug/L	79.7	10-120			
Dimethyl phthalate	36.6 ug/L	10.0	ug/L	50.0	ug/L	73.1	10-120			
Di-n-butyl phthalate	62.7 ug/L	10.0	ug/L	50.0	ug/L	125	10-120			L
Di-n-octyl phthalate	62.6 ug/L	10.0	ug/L	50.0	ug/L	125	19-132			
Fluoranthene	54.6 ug/L	10.0	ug/L	50.0	ug/L	109	43-121			
Fluorene	42.6 ug/L	10.0	ug/L	50.0	ug/L	85.3	70-120			
Hexachlorobenzene	39.3 ug/L	1.00	ug/L	50.0	ug/L	78.5	10-142			
Hexachlorobutadiene	27.4 ug/L	10.0	ug/L	50.0	ug/L	54.7	38-120			
Hexachlorocyclopentadiene	19.5 ug/L	10.0	ug/L	50.0	ug/L	39.0	10-76			
Hexachloroethane	27.2 ug/L	10.0	ug/L	50.0	ug/L	54.3	55-120			L
Indeno (1,2,3-cd) pyrene	37.4 ug/L	10.0	ug/L	50.0	ug/L	74.8	10-151			
Isophorone	25.7 ug/L	10.0	ug/L	50.0	ug/L	51.5	47-180			
Naphthalene	38.0 ug/L	5.00	ug/L	50.0	ug/L	76.0	36-120			
Nitrobenzene	31.5 ug/L	10.0	ug/L	50.0	ug/L	63.0	54-158			
n-Nitrosodimethylamine	16.0 ug/L	10.0	ug/L	50.0	ug/L	32.0	10-85			
n-Nitrosodi-n-propylamine	35.4 ug/L	10.0	ug/L	50.0	ug/L	70.7	14-198			
n-Nitrosodiphenylamine	30.6 ug/L	10.0	ug/L	50.0	ug/L	61.3	12-97			
p-Chloro-m-cresol	36.4 ug/L	10.0	ug/L	50.0	ug/L	72.8	10-142			
Pentachlorophenol	39.3 ug/L	20.0	ug/L	50.0	ug/L	78.6	38-152			
Phenanthrene	57.7 ug/L	10.0	ug/L	50.0	ug/L	115	65-120			
Phenol	16.4 ug/L	10.0	ug/L	50.5	ug/L	32.4	17-120			
Pyrene	56.1 ug/L	10.0	ug/L	50.0	ug/L	112	70-120			
Pyridine	24.0 ug/L	10.0	ug/L	50.0	ug/L	48.0	10-103			



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## Certificate of Analysis

### Final Report

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Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Semivolatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC0977 - SW3510C/EPA600-MS

#### LCS (BHC0977-BS1)

Prepared: 03/26/2024 Analyzed: 03/27/2024

Surr: 2,4,6-Tribromophenol (Surr)	72.6		ug/L	100	ug/L	72.6	5-136			
Surr: 2-Fluorobiphenyl (Surr)	41.5		ug/L	50.0	ug/L	83.0	9-117			
Surr: 2-Fluorophenol (Surr)	29.7		ug/L	100	ug/L	29.7	5-60			
Surr: Nitrobenzene-d5 (Surr)	34.5		ug/L	50.0	ug/L	69.0	5-151			
Surr: Phenol-d5 (Surr)	30.4		ug/L	100	ug/L	30.4	5-60			
Surr: p-Terphenyl-d14 (Surr)	51.6		ug/L	50.0	ug/L	103	5-141			



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Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Micro-extractables by GC/ECD - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHC1022 - SW8011

##### Blank (BHC1022-BLK1)

Prepared & Analyzed: 03/27/2024

1,2-Dibromoethane (EDB)	<0.010 ug/L	0.010	ug/L							
1,2,3-Trichloropropane	<0.010 ug/L	0.010	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<0.010 ug/L	0.010	ug/L							

##### LCS (BHC1022-BS1)

Prepared & Analyzed: 03/27/2024

1,2-Dibromoethane (EDB)	0.311 ug/L	0.010	ug/L	0.250 ug/L	124	65-135				
1,2,3-Trichloropropane	0.287 ug/L	0.010	ug/L	0.250 ug/L	115	65-135				
1,2-Dibromo-3-chloropropane (DBCP)	0.299 ug/L	0.010	ug/L	0.250 ug/L	120	65-135				

##### Matrix Spike (BHC1022-MS1)

Source: 24C1167-01

Prepared & Analyzed: 03/27/2024

1,2-Dibromoethane (EDB)	0.286 ug/L	0.010	ug/L	0.250 <0.010 ug/L	114	65-135				
1,2,3-Trichloropropane	0.249 ug/L	0.010	ug/L	0.250 <0.010 ug/L	99.5	65-135				
1,2-Dibromo-3-chloropropane (DBCP)	0.285 ug/L	0.010	ug/L	0.250 <0.010 ug/L	114	65-135				

##### Matrix Spike Dup (BHC1022-MSD1)

Source: 24C1167-01

Prepared & Analyzed: 03/27/2024

1,2-Dibromoethane (EDB)	0.270 ug/L	0.010	ug/L	0.250 <0.010 ug/L	108	65-135	5.75	20		
1,2,3-Trichloropropane	0.255 ug/L	0.010	ug/L	0.250 <0.010 ug/L	102	65-135	2.60	20		
1,2-Dibromo-3-chloropropane (DBCP)	0.270 ug/L	0.010	ug/L	0.250 <0.010 ug/L	108	65-135	5.22	20		



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Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Certified Analyses included in this Report

Analyte	Certifications
<b>SW8011 in Non-Potable Water</b>	
1,2-Dibromoethane (EDB)	VELAP,NCDEQ
1,2,3-Trichloropropane	VELAP,NCDEQ
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ
<b>SW8260D in Non-Potable Water</b>	
1,1,1,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,1-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromoethane (EDB)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,3,5-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,4-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
2,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
2-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
2-Hexanone (MBK)	VELAP,NCDEQ,PADEP,WVDEP
4-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Isopropyltoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Methyl-2-pentanone (MIBK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Bromobenzene	VELAP,NCDEQ,PADEP,WVDEP
Bromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromodichloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromoform	VELAP,NCDEQ,PADEP,WVDEP

## Certificate of Analysis

### Final Report

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Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Certified Analyses included in this Report

Analyte	Certifications
Bromomethane	VELAP,NCDEQ,PADEP,WVDEP
Carbon disulfide	VELAP,NCDEQ,PADEP,WVDEP
Carbon tetrachloride	VELAP,NCDEQ,PADEP,WVDEP
Chlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
Chloroethane	VELAP,NCDEQ,PADEP,WVDEP
Chloroform	VELAP,NCDEQ,PADEP,WVDEP
Chloromethane	VELAP,NCDEQ,PADEP,WVDEP
cis-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
cis-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Dibromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Dibromomethane	VELAP,NCDEQ,PADEP,WVDEP
Dichlorodifluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Di-isopropyl ether (DIPE)	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Hexachlorobutadiene	VELAP,NCDEQ,PADEP,WVDEP
Iodomethane	VELAP,NCDEQ,PADEP,WVDEP
Isopropylbenzene	VELAP,NCDEQ,PADEP,WVDEP
m+p-Xylenes	VELAP,NCDEQ,PADEP,WVDEP
Methylene chloride	VELAP,NCDEQ,PADEP,WVDEP
Methyl-t-butyl ether (MTBE)	VELAP,NCDEQ,PADEP,WVDEP
Naphthalene	VELAP,NCDEQ,PADEP,WVDEP
n-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
n-Propylbenzene	VELAP,NCDEQ,PADEP,WVDEP
o-Xylene	VELAP,NCDEQ,PADEP,WVDEP
sec-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Styrene	VELAP,NCDEQ,PADEP,WVDEP
tert-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Tetrachloroethylene (PCE)	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Trichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
Trichlorofluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Vinyl acetate	VELAP,NCDEQ,PADEP,WVDEP
Vinyl chloride	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP
<b>SW8270E in Non-Potable Water</b>	
1,2,4,5-Tetrachlorobenzene	NCDEQ,WVDEP,VELAP,PADEP

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Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Certified Analyses included in this Report

Analyte	Certifications
1,2,4-Trichlorobenzene	NCDEQ,WVDEP,VELAP,PADEP
1,2-Dichlorobenzene	NCDEQ,WVDEP,VELAP,PADEP
1,2-Diphenylhydrazine	NCDEQ,WVDEP,VELAP,PADEP
1,3-Dichlorobenzene	NCDEQ,WVDEP,VELAP,PADEP
1,3-Dinitrobenzene	NCDEQ,WVDEP,VELAP,PADEP
1,4-Dichlorobenzene	NCDEQ,WVDEP,VELAP,PADEP
1-Naphthylamine	NCDEQ,WVDEP,VELAP,PADEP
2,3,4,6-Tetrachlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2,4,5-Trichlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2,4,6-Trichlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2,4-Dichlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2,4-Dimethylphenol	NCDEQ,WVDEP,VELAP,PADEP
2,4-Dinitrophenol	NCDEQ,WVDEP,VELAP,PADEP
2,4-Dinitrotoluene	NCDEQ,WVDEP,VELAP,PADEP
2,6-Dichlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2,6-Dinitrotoluene	NCDEQ,WVDEP,VELAP,PADEP
2-Chloronaphthalene	NCDEQ,WVDEP,VELAP,PADEP
2-Chlorophenol	NCDEQ,WVDEP,VELAP,PADEP
2-Methylnaphthalene	NCDEQ,WVDEP,VELAP,PADEP
2-Naphthylamine	NCDEQ,WVDEP,VELAP,PADEP
2-Nitroaniline	NCDEQ,WVDEP,VELAP,PADEP
2-Nitrophenol	NCDEQ,WVDEP,VELAP,PADEP
3,3'-Dichlorobenzidine	NCDEQ,WVDEP,VELAP,PADEP
3-Methylcholanthrene	NCDEQ,WVDEP,VELAP,PADEP
3-Nitroaniline	NCDEQ,WVDEP,VELAP,PADEP
4,6-Dinitro-2-methylphenol	NCDEQ,WVDEP,VELAP,PADEP
4-Aminobiphenyl	NCDEQ,WVDEP,VELAP,PADEP
4-Bromophenyl phenyl ether	NCDEQ,WVDEP,VELAP,PADEP
4-Chloroaniline	NCDEQ,WVDEP,VELAP,PADEP
4-Chlorophenyl phenyl ether	NCDEQ,WVDEP,VELAP,PADEP
4-Nitroaniline	NCDEQ,WVDEP,VELAP,PADEP
4-Nitrophenol	NCDEQ,WVDEP,VELAP,PADEP
7,12-Dimethylbenz (a) anthracene	NCDEQ,WVDEP,VELAP,PADEP
Acenaphthene	NCDEQ,WVDEP,VELAP,PADEP
Acenaphthylene	NCDEQ,WVDEP,VELAP,PADEP
Acetophenone	NCDEQ,WVDEP,VELAP,PADEP
Aniline	NCDEQ,WVDEP,VELAP,PADEP
Anthracene	NCDEQ,WVDEP,VELAP,PADEP

## Certificate of Analysis

### Final Report

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Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Certified Analyses included in this Report

Analyte	Certifications
Benzidine	NCDEQ,WVDEP,VELAP,PADEP
Benzo (a) anthracene	NCDEQ,WVDEP,VELAP,PADEP
Benzo (a) pyrene	NCDEQ,WVDEP,VELAP,PADEP
Benzo (b) fluoranthene	NCDEQ,WVDEP,VELAP,PADEP
Benzo (g,h,i) perylene	NCDEQ,WVDEP,VELAP,PADEP
Benzo (k) fluoranthene	NCDEQ,WVDEP,VELAP,PADEP
Benzoic acid	NCDEQ,WVDEP,VELAP,PADEP
Benzyl alcohol	NCDEQ,WVDEP,VELAP,PADEP
bis (2-Chloroethoxy) methane	NCDEQ,WVDEP,VELAP,PADEP
bis (2-Chloroethyl) ether	NCDEQ,WVDEP,VELAP,PADEP
2,2'-Oxybis (1-chloropropane)	NCDEQ,WVDEP,VELAP,PADEP
bis (2-Ethylhexyl) phthalate	NCDEQ,WVDEP,VELAP,PADEP
Butyl benzyl phthalate	NCDEQ,WVDEP,VELAP,PADEP
Chrysene	NCDEQ,WVDEP,VELAP,PADEP
Dibenz (a,h) anthracene	NCDEQ,WVDEP,VELAP,PADEP
Dibenz (a,j) acridine	NCDEQ,WVDEP,VELAP,PADEP
Dibenzofuran	NCDEQ,WVDEP,VELAP,PADEP
Diethyl phthalate	NCDEQ,WVDEP,VELAP,PADEP
Dimethyl phthalate	NCDEQ,WVDEP,VELAP,PADEP
Di-n-butyl phthalate	NCDEQ,WVDEP,VELAP,PADEP
Di-n-octyl phthalate	NCDEQ,WVDEP,VELAP,PADEP
Diphenylamine	NCDEQ,WVDEP,VELAP,PADEP
Ethyl methanesulfonate	NCDEQ,WVDEP,VELAP,PADEP
Fluoranthene	NCDEQ,WVDEP,VELAP,PADEP
Fluorene	NCDEQ,WVDEP,VELAP,PADEP
Hexachlorobenzene	NCDEQ,WVDEP,VELAP,PADEP
Hexachlorobutadiene	NCDEQ,WVDEP,VELAP,PADEP
Hexachlorocyclopentadiene	NCDEQ,WVDEP,VELAP,PADEP
Hexachloroethane	NCDEQ,WVDEP,VELAP,PADEP
Indeno (1,2,3-cd) pyrene	NCDEQ,WVDEP,VELAP,PADEP
Isophorone	NCDEQ,WVDEP,VELAP,PADEP
m+p-Cresols	NCDEQ,WVDEP,VELAP,PADEP
Methyl methanesulfonate	NCDEQ,WVDEP,VELAP,PADEP
Naphthalene	NCDEQ,WVDEP,VELAP,PADEP
Nitrobenzene	NCDEQ,WVDEP,VELAP,PADEP
n-Nitrosodimethylamine	NCDEQ,WVDEP,VELAP,PADEP
n-Nitrosodi-n-butylamine	NCDEQ,WVDEP,VELAP,PADEP
n-Nitrosodi-n-propylamine	NCDEQ,WVDEP,VELAP,PADEP



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Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Certified Analyses included in this Report

Analyte	Certifications
n-Nitrosodiphenylamine	NCDEQ,WVDEP,VELAP,PADEP
n-Nitrosopiperidine	NCDEQ,WVDEP,VELAP,PADEP
o+m+p-Cresols	NCDEQ,WVDEP,VELAP
o-Cresol	NCDEQ,WVDEP,VELAP,PADEP
p-(Dimethylamino) azobenzene	NCDEQ,WVDEP,VELAP,PADEP
p-Chloro-m-cresol	NCDEQ,WVDEP,VELAP,PADEP
Pentachloronitrobenzene (quintozene)	NCDEQ,WVDEP,VELAP,PADEP
Pentachlorophenol	NCDEQ,WVDEP,VELAP,PADEP
Phenacetin	NCDEQ,WVDEP,VELAP,PADEP
Phenanthrene	NCDEQ,WVDEP,VELAP,PADEP
Phenol	NCDEQ,WVDEP,VELAP,PADEP
Pronamide	NCDEQ,WVDEP,VELAP,PADEP
Pyrene	NCDEQ,WVDEP,VELAP,PADEP
Pyridine	NCDEQ,WVDEP,VELAP,PADEP

Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2024
NYDOH	New York DOH Drinking Water	12069	04/01/2024
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
SCDHEC	South Carolina Dept of Health and Environmental	93016	06/14/2024
TXCEQ	Texas Comm on Environmental Quality #T104704	T104704576	05/31/2024
VELAP	NELAP-Virginia Certificate #12759	460021	06/14/2024
WVDEP	West Virginia DEP	350	11/30/2024



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Summary of Data Qualifiers

C Continuing calibration verification response for this analyte is outside specifications.

L LCS recovery is outside of established acceptance limits

M Matrix spike recovery is outside established acceptance limits

RPD Relative Percent Difference

Qual Qualifiers

-RE Denotes sample was re-analyzed

D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

## CHAIN OF CUSTODY

PAGE 1 OF 1

COMPANY NAME: <u>Total Environmental Concepts</u> CONTACT: <u>Shenna Hrynnyak</u> ADDRESS: <u>8382 Terrina Rd, Lorton, VA</u> PHONE #: <u>804-389-7983</u> FAX #: <u>N/A</u> EMAIL: <u>shrynnyak@tecinc.com</u>		INVOICE TO: <u>same</u> INVOICE CONTACT: <u>Shenna Hrynnyak</u> INVOICE ADDRESS: <u>same</u> INVOICE PHONE #: <u>703-567-4346</u>		PROJECT NAME/Quote #: <u>Coopers Cove Release</u> SITE NAME: <u>Coopers Cove Rd, Hwy 17A</u> PROJECT NUMBER: <u>4260155-001</u> P.O. #: <u>same</u> Pretreatment Program: <u>No</u>									
Is sample for compliance reporting? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Regulatory State: <u>VA</u>		Is sample from a chlorinated supply? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> PWS I.D. #: <u>5 Days</u>		Turn Around Time: Circle 10 <u>5</u> Days <u>0</u> Day(s)									
SAMPLER NAME (PRINT): <u>Ronald C. Dudley</u> Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other		SAMPLER SIGNATURE: <u>[Signature]</u> Matrix Codes: <u>WP=Air Wipe OT=Other</u>		COMMENTS: <u>DEP lead notes state lead rates</u>									
CLIENT SAMPLE I.D.	Grab Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	QC Data Package	LAB USE ONLY	Therm ID	Interference Checks or Pump Rate (L/min)
1) Terrace Water Corp.	<input checked="" type="checkbox"/>				3-23-24 11:25	1:00p	6h	8260-10CS	6	<input checked="" type="checkbox"/>	271	2.0	2.0
2)								8278-50CS					
3) E. Bradshaw (5222 Palmetto Bluff Rd)	<input checked="" type="checkbox"/>				3-23-24 12:30	1:00p	6h		5	<input checked="" type="checkbox"/>			
4) Trip blank									2	<input checked="" type="checkbox"/>			
5)													
6)													
7)													
8)													
9)													
10)													
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME
<u>[Signature]</u>	3/26/24 9:30	<u>[Signature]</u>	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18
ACQUISITION:	DATE / TIME	RECEIVED:	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME
<u>[Signature]</u>	3/26/24 10:18	<u>[Signature]</u>	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18
ACQUISITION:	DATE / TIME	RECEIVED:	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME	DATE / TIME
<u>[Signature]</u>	3/26/24 10:18	<u>[Signature]</u>	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18	3/26/24 10:18

TEC-Springfield 24C1309  
 Coopers Cove - State Lead  
 Recd: 03/26/2024 Due: 04/02/2024

### Sample Preservation Log

Order ID: 24C1309

Date Performed: 3/26/24

Analyst Performing Check: MJ

Sample ID	Container ID	Metals		Cyanide		Sulfide		Ammonia		TKN		Phos, Tot		NO3+NO2		DRO		Pesticide (508/509/508) PCB DW only		SVOC (528/527/525)		CrVI ***		Pest/PCB (508) / SVOC (525)		Final pH				
		pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	pH as Received	Final pH	Other		
010																														

NaOH ID: \_\_\_\_\_ HNO3 ID: \_\_\_\_\_ Analyst Initials: \_\_\_\_\_  
 H2SO4 ID: \_\_\_\_\_ NazSO3 ID: \_\_\_\_\_  
 HCL ID: \_\_\_\_\_ NazSO3 ID: \_\_\_\_\_  
 CRVI preserved date/time: \_\_\_\_\_  
 \* pH must be adjusted between 9.3 - 9.7  
 Ammonia Buffer Sol'n ID: \_\_\_\_\_  
 5N NaOH ID: \_\_\_\_\_

\*\*We only certify DISS CrVI and not T CrVI as an approved analyte under 40CFR136 for waste water.





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### Certificate of Analysis

#### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	March 28, 2024 14:35
Submitted To:	Shanna Hryvniak	Project Number:	4260155-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260155-001

### Sample Conditions Checklist

Samples Received at:	2.00°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	Yes
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	Yes
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	No
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes

Trip blanks logged for collection information per the VOAs received . HEG 3/26/24 1551

Shanna Hryvniak notified via email trip blanks were not received for EDB-TCP-DBCP 8011 analysis. HEG 3/27/24 1134

Shanna Hryvniak approved to run samples for EDB-TCP-DBCP 8011 without trip blanks. HEG 3/27/24 1359



**Attachment B**

**Laboratory Analytical Report (4/1/2024)**



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## Certificate of Analysis

*Final Report*

Laboratory Order ID 24D0070

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton, VA 22079	Date Received:	April 2, 2024 10:00
		Date Issued:	April 9, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
		Purchase Order:	4260177-001
Client Site I.D.:	Coopers Cove - State Lead		

Enclosed are the results of analyses for samples received by the laboratory on 04/02/2024 10:00. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads 'Ted Soyars'.

Ted Soyars  
Technical Director

### End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

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VELAP ID 460021



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 24D0070

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
76 Patsel	24D0070-01	Ground Water	04/01/2024 10:35	04/02/2024 10:00
1987 Coopers Cove	24D0070-02	Ground Water	04/01/2024 10:50	04/02/2024 10:00
5444 Windermere	24D0070-03	Ground Water	04/01/2024 11:35	04/02/2024 10:00
Walter's Greenhouse	24D0070-04	Ground Water	04/01/2024 11:45	04/02/2024 10:00
17 Valley View	24D0070-05	Ground Water	04/01/2024 12:00	04/02/2024 10:00
1326 Coopers Cove	24D0070-06	Ground Water	04/01/2024 12:20	04/02/2024 10:00
55 Valley View	24D0070-07	Ground Water	04/01/2024 12:45	04/02/2024 10:00
350 Ridgecrest	24D0070-08	Ground Water	04/01/2024 13:15	04/02/2024 10:00
411 Coopers Cove	24D0070-09	Ground Water	04/01/2024 01:10	04/02/2024 10:00
46 Ridgecrest	24D0070-10	Ground Water	04/01/2024 12:15	04/02/2024 10:00
1515 Coopers Cove	24D0070-11	Ground Water	04/01/2024 11:05	04/02/2024 10:00
1451 Coopers Cove	24D0070-12	Ground Water	04/01/2024 12:45	04/02/2024 10:00
1555 Coopers Cove	24D0070-13	Ground Water	04/01/2024 11:33	04/02/2024 10:00



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 76 Patsel Laboratory Sample ID: 24D0070-01  
 Grab Date/Time: 04/01/2024 10:35  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	04/02/24 18:57	04/02/24 18:57	TLH
1,1,1-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,1,2,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	04/02/24 18:57	04/02/24 18:57	TLH
1,1,2-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,1-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,1-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,1-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,2,3-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,2,3-Trichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,2,4-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,2,4-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,2-Dibromoethane (EDB)	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,2-Dichlorobenzene	01	SW8260D	<0.50 ug/L		0.50	1	04/02/24 18:57	04/02/24 18:57	TLH
1,2-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,2-Dichloropropane	01	SW8260D	<0.50 ug/L		0.50	1	04/02/24 18:57	04/02/24 18:57	TLH
1,3,5-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,3-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,3-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
1,4-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
2,2-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
2-Butanone (MEK)	01	SW8260D	<10.0 ug/L		10.0	1	04/02/24 18:57	04/02/24 18:57	TLH
2-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
2-Hexanone (MBK)	01	SW8260D	<5.00 ug/L		5.00	1	04/02/24 18:57	04/02/24 18:57	TLH
4-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 76 Patsel Laboratory Sample ID: 24D0070-01  
 Grab Date/Time: 04/01/2024 10:35  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
4-Methyl-2-pentanone (MIBK)	01	SW8260D	<5.00 ug/L		5.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Acetone	01	SW8260D	<10.0 ug/L		10.0	1	04/02/24 18:57	04/02/24 18:57	TLH
Benzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Bromobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Bromochloromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Bromodichloromethane	01	SW8260D	<0.50 ug/L		0.50	1	04/02/24 18:57	04/02/24 18:57	TLH
Bromoform	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Bromomethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Carbon disulfide	01	SW8260D	<10.0 ug/L		10.0	1	04/02/24 18:57	04/02/24 18:57	TLH
Carbon tetrachloride	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Chlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Chloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Chloroform	01	SW8260D	<0.50 ug/L		0.50	1	04/02/24 18:57	04/02/24 18:57	TLH
Chloromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
cis-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
cis-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Dibromochloromethane	01	SW8260D	<0.50 ug/L		0.50	1	04/02/24 18:57	04/02/24 18:57	TLH
Dibromomethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Dichlorodifluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Di-isopropyl ether (DIPE)	01	SW8260D	<5.00 ug/L		5.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Ethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Hexachlorobutadiene	01	SW8260D	<0.80 ug/L		0.80	1	04/02/24 18:57	04/02/24 18:57	TLH
Iodomethane	01	SW8260D	<10.0 ug/L		10.0	1	04/02/24 18:57	04/02/24 18:57	TLH
Isopropylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
m+p-Xylenes	01	SW8260D	<2.00 ug/L		2.00	1	04/02/24 18:57	04/02/24 18:57	TLH

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

Laboratory Order ID: 24D0070

**Analytical Results**

Sample I.D. 76 Patsel	Laboratory Sample ID: 24D0070-01
Grab Date/Time: 04/01/2024 10:35	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	01	SW8260D	<4.00 ug/L		4.00	1	04/02/24 18:57	04/02/24 18:57	TLH
<b>Methyl-t-butyl ether (MTBE)</b>	01	SW8260D	<b>1.86 ug/L</b>		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Naphthalene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
n-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
n-Propylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
o-Xylene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
sec-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Styrene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
tert-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Tetrachloroethylene (PCE)	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Toluene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
trans-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
trans-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Trichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Trichlorofluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Vinyl acetate	01	SW8260D	<10.0 ug/L		10.0	1	04/02/24 18:57	04/02/24 18:57	TLH
Vinyl chloride	01	SW8260D	<0.50 ug/L		0.50	1	04/02/24 18:57	04/02/24 18:57	TLH
Xylenes, Total	01	SW8260D	<3.00 ug/L		3.00	1	04/02/24 18:57	04/02/24 18:57	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	01	SW8260D	116 %		70-120		04/02/24 18:57	04/02/24 18:57	TLH
Surr: 4-Bromofluorobenzene (Surr)	01	SW8260D	91.8 %		75-120		04/02/24 18:57	04/02/24 18:57	TLH
Surr: Dibromofluoromethane (Surr)	01	SW8260D	93.9 %		70-130		04/02/24 18:57	04/02/24 18:57	TLH
Surr: Toluene-d8 (Surr)	01	SW8260D	107 %		70-130		04/02/24 18:57	04/02/24 18:57	TLH

**Micro-extractables by GC/ECD**



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 76 Patsel Laboratory Sample ID: 24D0070-01  
 Grab Date/Time: 04/01/2024 10:35  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	01	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 20:43	ATG
1,2,3-Trichloropropane	01	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 20:43	ATG
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 20:43	ATG





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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. 1987 Coopers Cove Laboratory Sample ID: 24D0070-02  
 Grab Date/Time: 04/01/2024 10:50  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	04/02/24 19:23	04/02/24 19:23	TLH
1,1,1-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,1,2,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	04/02/24 19:23	04/02/24 19:23	TLH
1,1,2-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,1-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,1-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,1-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,2,3-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,2,3-Trichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,2,4-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,2,4-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,2-Dibromoethane (EDB)	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,2-Dichlorobenzene	02	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:23	04/02/24 19:23	TLH
1,2-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,2-Dichloropropane	02	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:23	04/02/24 19:23	TLH
1,3,5-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,3-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,3-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
1,4-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
2,2-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
2-Butanone (MEK)	02	SW8260D	<10.0 ug/L		10.0	1	04/02/24 19:23	04/02/24 19:23	TLH
2-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
2-Hexanone (MBK)	02	SW8260D	<5.00 ug/L		5.00	1	04/02/24 19:23	04/02/24 19:23	TLH
4-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 1987 Coopers Cove Laboratory Sample ID: 24D0070-02  
 Grab Date/Time: 04/01/2024 10:50  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
4-Methyl-2-pentanone (MIBK)	02	SW8260D	<5.00 ug/L		5.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Acetone	02	SW8260D	<10.0 ug/L		10.0	1	04/02/24 19:23	04/02/24 19:23	TLH
Benzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Bromobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Bromochloromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Bromodichloromethane	02	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:23	04/02/24 19:23	TLH
Bromoform	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Bromomethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Carbon disulfide	02	SW8260D	<10.0 ug/L		10.0	1	04/02/24 19:23	04/02/24 19:23	TLH
Carbon tetrachloride	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Chlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Chloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Chloroform	02	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:23	04/02/24 19:23	TLH
Chloromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
cis-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
cis-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Dibromochloromethane	02	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:23	04/02/24 19:23	TLH
Dibromomethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Dichlorodifluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Di-isopropyl ether (DIPE)	02	SW8260D	<5.00 ug/L		5.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Ethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Hexachlorobutadiene	02	SW8260D	<0.80 ug/L		0.80	1	04/02/24 19:23	04/02/24 19:23	TLH
Iodomethane	02	SW8260D	<10.0 ug/L		10.0	1	04/02/24 19:23	04/02/24 19:23	TLH
Isopropylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
m+p-Xylenes	02	SW8260D	<2.00 ug/L		2.00	1	04/02/24 19:23	04/02/24 19:23	TLH

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

Sample I.D. 1987 Coopers Cove	Laboratory Sample ID: 24D0070-02
Grab Date/Time: 04/01/2024 10:50	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	02	SW8260D	<4.00 ug/L		4.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Methyl-t-butyl ether (MTBE)	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Naphthalene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
n-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
n-Propylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
o-Xylene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
sec-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Styrene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
tert-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Tetrachloroethylene (PCE)	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Toluene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
trans-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
trans-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Trichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Trichlorofluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:23	04/02/24 19:23	TLH
Vinyl acetate	02	SW8260D	<10.0 ug/L		10.0	1	04/02/24 19:23	04/02/24 19:23	TLH
Vinyl chloride	02	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:23	04/02/24 19:23	TLH
Xylenes, Total	02	SW8260D	<3.00 ug/L		3.00	1	04/02/24 19:23	04/02/24 19:23	TLH
<hr style="border-top: 1px dashed black;"/>									
Surr: 1,2-Dichloroethane-d4 (Surr)	02	SW8260D	110 %		70-120		04/02/24 19:23	04/02/24 19:23	TLH
Surr: 4-Bromofluorobenzene (Surr)	02	SW8260D	91.6 %		75-120		04/02/24 19:23	04/02/24 19:23	TLH
Surr: Dibromofluoromethane (Surr)	02	SW8260D	93.3 %		70-130		04/02/24 19:23	04/02/24 19:23	TLH
Surr: Toluene-d8 (Surr)	02	SW8260D	96.7 %		70-130		04/02/24 19:23	04/02/24 19:23	TLH

**Micro-extractables by GC/ECD**



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

<b>Sample I.D.</b> 1987 Coopers Cove	<b>Laboratory Sample ID:</b> 24D0070-02
<b>Grab Date/Time:</b> 04/01/2024 10:50	
<b>Field Residual Cl:</b>	<b>Field pH:</b>

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	02	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 21:05	ATG
1,2,3-Trichloropropane	02	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 21:05	ATG
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 21:05	ATG



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 5444 Windermere Laboratory Sample ID: 24D0070-03  
 Grab Date/Time: 04/01/2024 11:35  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	04/02/24 19:48	04/02/24 19:48	TLH
1,1,1-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,1,2,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	04/02/24 19:48	04/02/24 19:48	TLH
1,1,2-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,1-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,1-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,1-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,2,3-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,2,3-Trichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,2,4-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,2,4-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,2-Dibromoethane (EDB)	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,2-Dichlorobenzene	03	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:48	04/02/24 19:48	TLH
1,2-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,2-Dichloropropane	03	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:48	04/02/24 19:48	TLH
1,3,5-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,3-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,3-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
1,4-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
2,2-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
2-Butanone (MEK)	03	SW8260D	<10.0 ug/L		10.0	1	04/02/24 19:48	04/02/24 19:48	TLH
2-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
2-Hexanone (MBK)	03	SW8260D	<5.00 ug/L		5.00	1	04/02/24 19:48	04/02/24 19:48	TLH
4-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

Sample I.D. 5444 Windermere	Laboratory Sample ID: 24D0070-03
Grab Date/Time: 04/01/2024 11:35	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
4-Methyl-2-pentanone (MIBK)	03	SW8260D	<5.00 ug/L		5.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Acetone	03	SW8260D	<10.0 ug/L		10.0	1	04/02/24 19:48	04/02/24 19:48	TLH
Benzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Bromobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Bromochloromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Bromodichloromethane	03	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:48	04/02/24 19:48	TLH
Bromoform	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Bromomethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Carbon disulfide	03	SW8260D	<10.0 ug/L		10.0	1	04/02/24 19:48	04/02/24 19:48	TLH
Carbon tetrachloride	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Chlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Chloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Chloroform	03	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:48	04/02/24 19:48	TLH
Chloromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
cis-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
cis-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Dibromochloromethane	03	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:48	04/02/24 19:48	TLH
Dibromomethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Dichlorodifluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Di-isopropyl ether (DIPE)	03	SW8260D	<5.00 ug/L		5.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Ethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Hexachlorobutadiene	03	SW8260D	<0.80 ug/L		0.80	1	04/02/24 19:48	04/02/24 19:48	TLH
Iodomethane	03	SW8260D	<10.0 ug/L		10.0	1	04/02/24 19:48	04/02/24 19:48	TLH
Isopropylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
m+p-Xylenes	03	SW8260D	<2.00 ug/L		2.00	1	04/02/24 19:48	04/02/24 19:48	TLH

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 5444 Windermere	Laboratory Sample ID: 24D0070-03
Grab Date/Time: 04/01/2024 11:35	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	03	SW8260D	<4.00 ug/L		4.00	1	04/02/24 19:48	04/02/24 19:48	TLH
<b>Methyl-t-butyl ether (MTBE)</b>	03	SW8260D	<b>6.03 ug/L</b>		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Naphthalene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
n-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
n-Propylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
o-Xylene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
sec-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Styrene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
tert-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Tetrachloroethylene (PCE)	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Toluene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
trans-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
trans-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Trichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Trichlorofluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Vinyl acetate	03	SW8260D	<10.0 ug/L		10.0	1	04/02/24 19:48	04/02/24 19:48	TLH
Vinyl chloride	03	SW8260D	<0.50 ug/L		0.50	1	04/02/24 19:48	04/02/24 19:48	TLH
Xylenes, Total	03	SW8260D	<3.00 ug/L		3.00	1	04/02/24 19:48	04/02/24 19:48	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	03	SW8260D	114 %		70-120		04/02/24 19:48	04/02/24 19:48	TLH
Surr: 4-Bromofluorobenzene (Surr)	03	SW8260D	94.3 %		75-120		04/02/24 19:48	04/02/24 19:48	TLH
Surr: Dibromofluoromethane (Surr)	03	SW8260D	94.4 %		70-130		04/02/24 19:48	04/02/24 19:48	TLH
Surr: Toluene-d8 (Surr)	03	SW8260D	101 %		70-130		04/02/24 19:48	04/02/24 19:48	TLH

#### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. 5444 Windermere Laboratory Sample ID: 24D0070-03  
 Grab Date/Time: 04/01/2024 11:35  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	03	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 21:27	ATG
1,2,3-Trichloropropane	03	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 21:27	ATG
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 21:27	ATG





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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. Walter's Greenhouse Laboratory Sample ID: 24D0070-04  
 Grab Date/Time: 04/01/2024 11:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	04	SW8260D	<0.40 ug/L		0.40	1	04/02/24 20:14	04/02/24 20:14	TLH
1,1,1-Trichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,1,2,2-Tetrachloroethane	04	SW8260D	<0.40 ug/L		0.40	1	04/02/24 20:14	04/02/24 20:14	TLH
1,1,2-Trichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,1-Dichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,1-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,1-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,2,3-Trichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,2,3-Trichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,2,4-Trichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,2,4-Trimethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,2-Dibromo-3-chloropropane (DBCP)	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,2-Dibromoethane (EDB)	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,2-Dichlorobenzene	04	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:14	04/02/24 20:14	TLH
1,2-Dichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,2-Dichloropropane	04	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:14	04/02/24 20:14	TLH
1,3,5-Trimethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,3-Dichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,3-Dichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
1,4-Dichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
2,2-Dichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
2-Butanone (MEK)	04	SW8260D	<10.0 ug/L		10.0	1	04/02/24 20:14	04/02/24 20:14	TLH
2-Chlorotoluene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
2-Hexanone (MBK)	04	SW8260D	<5.00 ug/L		5.00	1	04/02/24 20:14	04/02/24 20:14	TLH
4-Chlorotoluene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. Walter's Greenhouse Laboratory Sample ID: 24D0070-04  
 Grab Date/Time: 04/01/2024 11:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
4-Methyl-2-pentanone (MIBK)	04	SW8260D	<5.00 ug/L		5.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Acetone	04	SW8260D	<10.0 ug/L		10.0	1	04/02/24 20:14	04/02/24 20:14	TLH
Benzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Bromobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Bromochloromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Bromodichloromethane	04	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:14	04/02/24 20:14	TLH
Bromoform	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Bromomethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Carbon disulfide	04	SW8260D	<10.0 ug/L		10.0	1	04/02/24 20:14	04/02/24 20:14	TLH
Carbon tetrachloride	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Chlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Chloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Chloroform	04	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:14	04/02/24 20:14	TLH
Chloromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
cis-1,2-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
cis-1,3-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Dibromochloromethane	04	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:14	04/02/24 20:14	TLH
Dibromomethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Dichlorodifluoromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Di-isopropyl ether (DIPE)	04	SW8260D	<5.00 ug/L		5.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Ethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Hexachlorobutadiene	04	SW8260D	<0.80 ug/L		0.80	1	04/02/24 20:14	04/02/24 20:14	TLH
Iodomethane	04	SW8260D	<10.0 ug/L		10.0	1	04/02/24 20:14	04/02/24 20:14	TLH
Isopropylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
m+p-Xylenes	04	SW8260D	<2.00 ug/L		2.00	1	04/02/24 20:14	04/02/24 20:14	TLH



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. Walter's Greenhouse Laboratory Sample ID: 24D0070-04  
 Grab Date/Time: 04/01/2024 11:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	04	SW8260D	<4.00 ug/L		4.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Methyl-t-butyl ether (MTBE)	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Naphthalene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
n-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
n-Propylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
o-Xylene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
sec-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Styrene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
tert-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Tetrachloroethylene (PCE)	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Toluene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
trans-1,2-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
trans-1,3-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Trichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Trichlorofluoromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Vinyl acetate	04	SW8260D	<10.0 ug/L		10.0	1	04/02/24 20:14	04/02/24 20:14	TLH
Vinyl chloride	04	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:14	04/02/24 20:14	TLH
Xylenes, Total	04	SW8260D	<3.00 ug/L		3.00	1	04/02/24 20:14	04/02/24 20:14	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	04	SW8260D	111 %		70-120		04/02/24 20:14	04/02/24 20:14	TLH
Surr: 4-Bromofluorobenzene (Surr)	04	SW8260D	92.5 %		75-120		04/02/24 20:14	04/02/24 20:14	TLH
Surr: Dibromofluoromethane (Surr)	04	SW8260D	98.3 %		70-130		04/02/24 20:14	04/02/24 20:14	TLH
Surr: Toluene-d8 (Surr)	04	SW8260D	98.7 %		70-130		04/02/24 20:14	04/02/24 20:14	TLH

### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. Walter's Greenhouse Laboratory Sample ID: 24D0070-04  
 Grab Date/Time: 04/01/2024 11:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	04	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 21:49	ATG
1,2,3-Trichloropropane	04	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 21:49	ATG
1,2-Dibromo-3-chloropropane (DBCP)	04	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 21:49	ATG

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

**Sample I.D.** 17 Valley View

**Laboratory Sample ID:** 24D0070-05

**Grab Date/Time:** 04/01/2024 12:00

**Field Residual Cl:**

**Field pH:**

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	05	SW8260D	<0.40 ug/L		0.40	1	04/02/24 20:40	04/02/24 20:40	TLH
1,1,1-Trichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,1,2,2-Tetrachloroethane	05	SW8260D	<0.40 ug/L		0.40	1	04/02/24 20:40	04/02/24 20:40	TLH
1,1,2-Trichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,1-Dichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,1-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,1-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,2,3-Trichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,2,3-Trichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,2,4-Trichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,2,4-Trimethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,2-Dibromo-3-chloropropane (DBCP)	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,2-Dibromoethane (EDB)	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,2-Dichlorobenzene	05	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:40	04/02/24 20:40	TLH
1,2-Dichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,2-Dichloropropane	05	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:40	04/02/24 20:40	TLH
1,3,5-Trimethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,3-Dichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,3-Dichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
1,4-Dichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
2,2-Dichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
2-Butanone (MEK)	05	SW8260D	<10.0 ug/L		10.0	1	04/02/24 20:40	04/02/24 20:40	TLH
2-Chlorotoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
2-Hexanone (MBK)	05	SW8260D	<5.00 ug/L		5.00	1	04/02/24 20:40	04/02/24 20:40	TLH
4-Chlorotoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

Laboratory Order ID: 24D0070

**Analytical Results**

Sample I.D. 17 Valley View

Laboratory Sample ID: 24D0070-05

Grab Date/Time: 04/01/2024 12:00

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
4-Methyl-2-pentanone (MIBK)	05	SW8260D	<5.00 ug/L		5.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Acetone	05	SW8260D	<10.0 ug/L		10.0	1	04/02/24 20:40	04/02/24 20:40	TLH
Benzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Bromobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Bromochloromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Bromodichloromethane	05	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:40	04/02/24 20:40	TLH
Bromoform	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Bromomethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Carbon disulfide	05	SW8260D	<10.0 ug/L		10.0	1	04/02/24 20:40	04/02/24 20:40	TLH
Carbon tetrachloride	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Chlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Chloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Chloroform	05	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:40	04/02/24 20:40	TLH
Chloromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
cis-1,2-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
cis-1,3-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Dibromochloromethane	05	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:40	04/02/24 20:40	TLH
Dibromomethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Dichlorodifluoromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Di-isopropyl ether (DIPE)	05	SW8260D	<5.00 ug/L		5.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Ethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Hexachlorobutadiene	05	SW8260D	<0.80 ug/L		0.80	1	04/02/24 20:40	04/02/24 20:40	TLH
Iodomethane	05	SW8260D	<10.0 ug/L		10.0	1	04/02/24 20:40	04/02/24 20:40	TLH
Isopropylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
m+p-Xylenes	05	SW8260D	<2.00 ug/L		2.00	1	04/02/24 20:40	04/02/24 20:40	TLH

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

**Sample I.D.** 17 Valley View

**Laboratory Sample ID:** 24D0070-05

**Grab Date/Time:** 04/01/2024 12:00

**Field Residual Cl:**

**Field pH:**

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	05	SW8260D	<4.00 ug/L		4.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Methyl-t-butyl ether (MTBE)	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Naphthalene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
n-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
n-Propylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
o-Xylene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
sec-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Styrene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
tert-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Tetrachloroethylene (PCE)	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Toluene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
trans-1,2-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
trans-1,3-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Trichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Trichlorofluoromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Vinyl acetate	05	SW8260D	<10.0 ug/L		10.0	1	04/02/24 20:40	04/02/24 20:40	TLH
Vinyl chloride	05	SW8260D	<0.50 ug/L		0.50	1	04/02/24 20:40	04/02/24 20:40	TLH
Xylenes, Total	05	SW8260D	<3.00 ug/L		3.00	1	04/02/24 20:40	04/02/24 20:40	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	05	SW8260D	112 %		70-120		04/02/24 20:40	04/02/24 20:40	TLH
Surr: 4-Bromofluorobenzene (Surr)	05	SW8260D	97.0 %		75-120		04/02/24 20:40	04/02/24 20:40	TLH
Surr: Dibromofluoromethane (Surr)	05	SW8260D	99.1 %		70-130		04/02/24 20:40	04/02/24 20:40	TLH
Surr: Toluene-d8 (Surr)	05	SW8260D	105 %		70-130		04/02/24 20:40	04/02/24 20:40	TLH

**Micro-extractables by GC/ECD**



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 17 Valley View

Laboratory Sample ID: 24D0070-05

Grab Date/Time: 04/01/2024 12:00

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	05	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 22:10	ATG
1,2,3-Trichloropropane	05	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 22:10	ATG
1,2-Dibromo-3-chloropropane (DBCP)	05	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 22:10	ATG





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 1326 Coopers Cove	Laboratory Sample ID: 24D0070-06
Grab Date/Time: 04/01/2024 12:20	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	06	SW8260D	<0.40 ug/L		0.40	1	04/02/24 21:41	04/02/24 21:41	TLH
1,1,1-Trichloroethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,1,2,2-Tetrachloroethane	06	SW8260D	<0.40 ug/L		0.40	1	04/02/24 21:41	04/02/24 21:41	TLH
1,1,2-Trichloroethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,1-Dichloroethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,1-Dichloroethylene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,1-Dichloropropene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,2,3-Trichlorobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,2,3-Trichloropropane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,2,4-Trichlorobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,2,4-Trimethylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,2-Dibromo-3-chloropropane (DBCP)	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,2-Dibromoethane (EDB)	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,2-Dichlorobenzene	06	SW8260D	<0.50 ug/L		0.50	1	04/02/24 21:41	04/02/24 21:41	TLH
1,2-Dichloroethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,2-Dichloropropane	06	SW8260D	<0.50 ug/L		0.50	1	04/02/24 21:41	04/02/24 21:41	TLH
1,3,5-Trimethylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,3-Dichlorobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,3-Dichloropropane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
1,4-Dichlorobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
2,2-Dichloropropane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
2-Butanone (MEK)	06	SW8260D	<10.0 ug/L		10.0	1	04/02/24 21:41	04/02/24 21:41	TLH
2-Chlorotoluene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
2-Hexanone (MBK)	06	SW8260D	<5.00 ug/L		5.00	1	04/02/24 21:41	04/02/24 21:41	TLH
4-Chlorotoluene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. 1326 Coopers Cove Laboratory Sample ID: 24D0070-06  
 Grab Date/Time: 04/01/2024 12:20  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
4-Methyl-2-pentanone (MIBK)	06	SW8260D	<5.00 ug/L		5.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Acetone	06	SW8260D	<10.0 ug/L		10.0	1	04/02/24 21:41	04/02/24 21:41	TLH
Benzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Bromobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Bromochloromethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Bromodichloromethane	06	SW8260D	<0.50 ug/L		0.50	1	04/02/24 21:41	04/02/24 21:41	TLH
Bromoform	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Bromomethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Carbon disulfide	06	SW8260D	<10.0 ug/L		10.0	1	04/02/24 21:41	04/02/24 21:41	TLH
Carbon tetrachloride	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Chlorobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Chloroethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Chloroform	06	SW8260D	<0.50 ug/L		0.50	1	04/02/24 21:41	04/02/24 21:41	TLH
Chloromethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
cis-1,2-Dichloroethylene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
cis-1,3-Dichloropropene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Dibromochloromethane	06	SW8260D	<0.50 ug/L		0.50	1	04/02/24 21:41	04/02/24 21:41	TLH
Dibromomethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Dichlorodifluoromethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Di-isopropyl ether (DIPE)	06	SW8260D	<5.00 ug/L		5.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Ethylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Hexachlorobutadiene	06	SW8260D	<0.80 ug/L		0.80	1	04/02/24 21:41	04/02/24 21:41	TLH
Iodomethane	06	SW8260D	<10.0 ug/L		10.0	1	04/02/24 21:41	04/02/24 21:41	TLH
Isopropylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
m+p-Xylenes	06	SW8260D	<2.00 ug/L		2.00	1	04/02/24 21:41	04/02/24 21:41	TLH



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. 1326 Coopers Cove Laboratory Sample ID: 24D0070-06

Grab Date/Time: 04/01/2024 12:20

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	06	SW8260D	<4.00 ug/L		4.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Methyl-t-butyl ether (MTBE)	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Naphthalene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
n-Butylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
n-Propylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
o-Xylene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
sec-Butylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Styrene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
tert-Butylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Tetrachloroethylene (PCE)	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Toluene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
trans-1,2-Dichloroethylene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
trans-1,3-Dichloropropene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Trichloroethylene	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Trichlorofluoromethane	06	SW8260D	<1.00 ug/L		1.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Vinyl acetate	06	SW8260D	<10.0 ug/L		10.0	1	04/02/24 21:41	04/02/24 21:41	TLH
Vinyl chloride	06	SW8260D	<0.50 ug/L		0.50	1	04/02/24 21:41	04/02/24 21:41	TLH
Xylenes, Total	06	SW8260D	<3.00 ug/L		3.00	1	04/02/24 21:41	04/02/24 21:41	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	06	SW8260D	85.7 %		70-120		04/02/24 21:41	04/02/24 21:41	TLH
Surr: 4-Bromofluorobenzene (Surr)	06	SW8260D	94.7 %		75-120		04/02/24 21:41	04/02/24 21:41	TLH
Surr: Dibromofluoromethane (Surr)	06	SW8260D	82.4 %		70-130		04/02/24 21:41	04/02/24 21:41	TLH
Surr: Toluene-d8 (Surr)	06	SW8260D	91.3 %		70-130		04/02/24 21:41	04/02/24 21:41	TLH

### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

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 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 1326 Coopers Cove Laboratory Sample ID: 24D0070-06  
 Grab Date/Time: 04/01/2024 12:20  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	06	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 22:32	ATG
1,2,3-Trichloropropane	06	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 22:32	ATG
1,2-Dibromo-3-chloropropane (DBCP)	06	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 22:32	ATG



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## Certificate of Analysis

### Final Report

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 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 55 Valley View

Laboratory Sample ID: 24D0070-07

Grab Date/Time: 04/01/2024 12:45

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	07	SW8260D	<0.40 ug/L		0.40	1	04/02/24 22:03	04/02/24 22:03	TLH
1,1,1-Trichloroethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,1,2,2-Tetrachloroethane	07	SW8260D	<0.40 ug/L		0.40	1	04/02/24 22:03	04/02/24 22:03	TLH
1,1,2-Trichloroethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,1-Dichloroethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,1-Dichloroethylene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,1-Dichloropropene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,2,3-Trichlorobenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,2,3-Trichloropropane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,2,4-Trichlorobenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,2,4-Trimethylbenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,2-Dibromo-3-chloropropane (DBCP)	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,2-Dibromoethane (EDB)	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,2-Dichlorobenzene	07	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:03	04/02/24 22:03	TLH
1,2-Dichloroethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,2-Dichloropropane	07	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:03	04/02/24 22:03	TLH
1,3,5-Trimethylbenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,3-Dichlorobenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,3-Dichloropropane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
1,4-Dichlorobenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
2,2-Dichloropropane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
2-Butanone (MEK)	07	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:03	04/02/24 22:03	TLH
2-Chlorotoluene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
2-Hexanone (MBK)	07	SW8260D	<5.00 ug/L		5.00	1	04/02/24 22:03	04/02/24 22:03	TLH
4-Chlorotoluene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH



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## Certificate of Analysis

### Final Report

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 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 55 Valley View

Laboratory Sample ID: 24D0070-07

Grab Date/Time: 04/01/2024 12:45

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
4-Methyl-2-pentanone (MIBK)	07	SW8260D	<5.00 ug/L		5.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Acetone	07	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:03	04/02/24 22:03	TLH
Benzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Bromobenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Bromochloromethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Bromodichloromethane	07	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:03	04/02/24 22:03	TLH
Bromoform	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Bromomethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Carbon disulfide	07	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:03	04/02/24 22:03	TLH
Carbon tetrachloride	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Chlorobenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Chloroethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Chloroform	07	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:03	04/02/24 22:03	TLH
Chloromethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
cis-1,2-Dichloroethylene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
cis-1,3-Dichloropropene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Dibromochloromethane	07	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:03	04/02/24 22:03	TLH
Dibromomethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Dichlorodifluoromethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Di-isopropyl ether (DIPE)	07	SW8260D	<5.00 ug/L		5.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Ethylbenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Hexachlorobutadiene	07	SW8260D	<0.80 ug/L		0.80	1	04/02/24 22:03	04/02/24 22:03	TLH
Iodomethane	07	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:03	04/02/24 22:03	TLH
Isopropylbenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
m+p-Xylenes	07	SW8260D	<2.00 ug/L		2.00	1	04/02/24 22:03	04/02/24 22:03	TLH



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## Certificate of Analysis

### Final Report

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 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 55 Valley View

Laboratory Sample ID: 24D0070-07

Grab Date/Time: 04/01/2024 12:45

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	07	SW8260D	<4.00 ug/L		4.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Methyl-t-butyl ether (MTBE)	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Naphthalene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
n-Butylbenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
n-Propylbenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
o-Xylene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
sec-Butylbenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Styrene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
tert-Butylbenzene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Tetrachloroethylene (PCE)	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Toluene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
trans-1,2-Dichloroethylene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
trans-1,3-Dichloropropene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Trichloroethylene	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Trichlorofluoromethane	07	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Vinyl acetate	07	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:03	04/02/24 22:03	TLH
Vinyl chloride	07	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:03	04/02/24 22:03	TLH
Xylenes, Total	07	SW8260D	<3.00 ug/L		3.00	1	04/02/24 22:03	04/02/24 22:03	TLH
Surr: 1,2-Dichloroethane-d4 (Surr)	07	SW8260D	90.3 %		70-120		04/02/24 22:03	04/02/24 22:03	TLH
Surr: 4-Bromofluorobenzene (Surr)	07	SW8260D	94.8 %		75-120		04/02/24 22:03	04/02/24 22:03	TLH
Surr: Dibromofluoromethane (Surr)	07	SW8260D	84.0 %		70-130		04/02/24 22:03	04/02/24 22:03	TLH
Surr: Toluene-d8 (Surr)	07	SW8260D	92.2 %		70-130		04/02/24 22:03	04/02/24 22:03	TLH

#### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

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 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 55 Valley View

Laboratory Sample ID: 24D0070-07

Grab Date/Time: 04/01/2024 12:45

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	07	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 22:54	ATG
1,2,3-Trichloropropane	07	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 22:54	ATG
1,2-Dibromo-3-chloropropane (DBCP)	07	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 22:54	ATG



## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

**Sample I.D.** 350 Ridgecrest **Laboratory Sample ID:** 24D0070-08

**Grab Date/Time:** 04/01/2024 13:15

**Field Residual Cl:** **Field pH:**

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	08	SW8260D	<0.40 ug/L		0.40	1	04/02/24 22:26	04/02/24 22:26	TLH
1,1,1-Trichloroethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,1,2,2-Tetrachloroethane	08	SW8260D	<0.40 ug/L		0.40	1	04/02/24 22:26	04/02/24 22:26	TLH
1,1,2-Trichloroethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,1-Dichloroethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,1-Dichloroethylene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,1-Dichloropropene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,2,3-Trichlorobenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,2,3-Trichloropropane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,2,4-Trichlorobenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,2,4-Trimethylbenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,2-Dibromo-3-chloropropane (DBCP)	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,2-Dibromoethane (EDB)	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,2-Dichlorobenzene	08	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:26	04/02/24 22:26	TLH
1,2-Dichloroethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,2-Dichloropropane	08	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:26	04/02/24 22:26	TLH
1,3,5-Trimethylbenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,3-Dichlorobenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,3-Dichloropropane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
1,4-Dichlorobenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
2,2-Dichloropropane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
2-Butanone (MEK)	08	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:26	04/02/24 22:26	TLH
2-Chlorotoluene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
2-Hexanone (MBK)	08	SW8260D	<5.00 ug/L		5.00	1	04/02/24 22:26	04/02/24 22:26	TLH
4-Chlorotoluene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 350 Ridgecrest

Laboratory Sample ID: 24D0070-08

Grab Date/Time: 04/01/2024 13:15

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
4-Methyl-2-pentanone (MIBK)	08	SW8260D	<5.00 ug/L		5.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Acetone	08	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:26	04/02/24 22:26	TLH
Benzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Bromobenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Bromochloromethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Bromodichloromethane	08	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:26	04/02/24 22:26	TLH
Bromoform	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Bromomethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Carbon disulfide	08	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:26	04/02/24 22:26	TLH
Carbon tetrachloride	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Chlorobenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Chloroethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Chloroform	08	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:26	04/02/24 22:26	TLH
Chloromethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
cis-1,2-Dichloroethylene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
cis-1,3-Dichloropropene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Dibromochloromethane	08	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:26	04/02/24 22:26	TLH
Dibromomethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Dichlorodifluoromethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Di-isopropyl ether (DIPE)	08	SW8260D	<5.00 ug/L		5.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Ethylbenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Hexachlorobutadiene	08	SW8260D	<0.80 ug/L		0.80	1	04/02/24 22:26	04/02/24 22:26	TLH
Iodomethane	08	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:26	04/02/24 22:26	TLH
Isopropylbenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
m+p-Xylenes	08	SW8260D	<2.00 ug/L		2.00	1	04/02/24 22:26	04/02/24 22:26	TLH



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

Laboratory Order ID: 24D0070

**Analytical Results**

Sample I.D. 350 Ridgecrest Laboratory Sample ID: 24D0070-08

Grab Date/Time: 04/01/2024 13:15

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	08	SW8260D	<4.00 ug/L		4.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Methyl-t-butyl ether (MTBE)	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Naphthalene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
n-Butylbenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
n-Propylbenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
o-Xylene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
sec-Butylbenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Styrene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
tert-Butylbenzene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Tetrachloroethylene (PCE)	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Toluene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
trans-1,2-Dichloroethylene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
trans-1,3-Dichloropropene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Trichloroethylene	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Trichlorofluoromethane	08	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:26	04/02/24 22:26	TLH
Vinyl acetate	08	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:26	04/02/24 22:26	TLH
Vinyl chloride	08	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:26	04/02/24 22:26	TLH
Xylenes, Total	08	SW8260D	<3.00 ug/L		3.00	1	04/02/24 22:26	04/02/24 22:26	TLH
<hr style="border-top: 1px dashed black;"/>									
Surr: 1,2-Dichloroethane-d4 (Surr)	08	SW8260D	85.3 %		70-120		04/02/24 22:26	04/02/24 22:26	TLH
Surr: 4-Bromofluorobenzene (Surr)	08	SW8260D	96.0 %		75-120		04/02/24 22:26	04/02/24 22:26	TLH
Surr: Dibromofluoromethane (Surr)	08	SW8260D	81.6 %		70-130		04/02/24 22:26	04/02/24 22:26	TLH
Surr: Toluene-d8 (Surr)	08	SW8260D	94.1 %		70-130		04/02/24 22:26	04/02/24 22:26	TLH

**Micro-extractables by GC/ECD**



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 350 Ridgecrest Laboratory Sample ID: 24D0070-08  
 Grab Date/Time: 04/01/2024 13:15  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	08	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 23:16	ATG
1,2,3-Trichloropropane	08	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 23:16	ATG
1,2-Dibromo-3-chloropropane (DBCP)	08	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 23:16	ATG

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

**Sample I.D.** 411 Coopers Cove **Laboratory Sample ID:** 24D0070-09

**Grab Date/Time:** 04/01/2024 01:10

**Field Residual Cl:** **Field pH:**

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	09	SW8260D	<0.40 ug/L		0.40	1	04/02/24 22:48	04/02/24 22:48	TLH
1,1,1-Trichloroethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,1,2,2-Tetrachloroethane	09	SW8260D	<0.40 ug/L		0.40	1	04/02/24 22:48	04/02/24 22:48	TLH
1,1,2-Trichloroethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,1-Dichloroethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,1-Dichloroethylene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,1-Dichloropropene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,2,3-Trichlorobenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,2,3-Trichloropropane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,2,4-Trichlorobenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,2,4-Trimethylbenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,2-Dibromo-3-chloropropane (DBCP)	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,2-Dibromoethane (EDB)	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,2-Dichlorobenzene	09	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:48	04/02/24 22:48	TLH
1,2-Dichloroethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,2-Dichloropropane	09	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:48	04/02/24 22:48	TLH
1,3,5-Trimethylbenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,3-Dichlorobenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,3-Dichloropropane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
1,4-Dichlorobenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
2,2-Dichloropropane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
2-Butanone (MEK)	09	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:48	04/02/24 22:48	TLH
2-Chlorotoluene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
2-Hexanone (MBK)	09	SW8260D	<5.00 ug/L		5.00	1	04/02/24 22:48	04/02/24 22:48	TLH
4-Chlorotoluene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

Sample I.D. 411 Coopers Cove	Laboratory Sample ID: 24D0070-09
Grab Date/Time: 04/01/2024 01:10	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
4-Methyl-2-pentanone (MIBK)	09	SW8260D	<5.00 ug/L		5.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Acetone	09	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:48	04/02/24 22:48	TLH
Benzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Bromobenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Bromochloromethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Bromodichloromethane	09	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:48	04/02/24 22:48	TLH
Bromoform	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Bromomethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Carbon disulfide	09	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:48	04/02/24 22:48	TLH
Carbon tetrachloride	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Chlorobenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Chloroethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Chloroform	09	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:48	04/02/24 22:48	TLH
Chloromethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
cis-1,2-Dichloroethylene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
cis-1,3-Dichloropropene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Dibromochloromethane	09	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:48	04/02/24 22:48	TLH
Dibromomethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Dichlorodifluoromethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Di-isopropyl ether (DIPE)	09	SW8260D	<5.00 ug/L		5.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Ethylbenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Hexachlorobutadiene	09	SW8260D	<0.80 ug/L		0.80	1	04/02/24 22:48	04/02/24 22:48	TLH
Iodomethane	09	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:48	04/02/24 22:48	TLH
Isopropylbenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
m+p-Xylenes	09	SW8260D	<2.00 ug/L		2.00	1	04/02/24 22:48	04/02/24 22:48	TLH

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

Sample I.D. 411 Coopers Cove	Laboratory Sample ID: 24D0070-09
Grab Date/Time: 04/01/2024 01:10	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	09	SW8260D	<4.00 ug/L		4.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Methyl-t-butyl ether (MTBE)	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Naphthalene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
n-Butylbenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
n-Propylbenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
o-Xylene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
sec-Butylbenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Styrene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
tert-Butylbenzene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Tetrachloroethylene (PCE)	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Toluene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
trans-1,2-Dichloroethylene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
trans-1,3-Dichloropropene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Trichloroethylene	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Trichlorofluoromethane	09	SW8260D	<1.00 ug/L		1.00	1	04/02/24 22:48	04/02/24 22:48	TLH
Vinyl acetate	09	SW8260D	<10.0 ug/L		10.0	1	04/02/24 22:48	04/02/24 22:48	TLH
Vinyl chloride	09	SW8260D	<0.50 ug/L		0.50	1	04/02/24 22:48	04/02/24 22:48	TLH
Xylenes, Total	09	SW8260D	<3.00 ug/L		3.00	1	04/02/24 22:48	04/02/24 22:48	TLH
<hr style="border-top: 1px dashed black;"/>									
Surr: 1,2-Dichloroethane-d4 (Surr)	09	SW8260D	85.1 %		70-120		04/02/24 22:48	04/02/24 22:48	TLH
Surr: 4-Bromofluorobenzene (Surr)	09	SW8260D	94.0 %		75-120		04/02/24 22:48	04/02/24 22:48	TLH
Surr: Dibromofluoromethane (Surr)	09	SW8260D	81.5 %		70-130		04/02/24 22:48	04/02/24 22:48	TLH
Surr: Toluene-d8 (Surr)	09	SW8260D	101 %		70-130		04/02/24 22:48	04/02/24 22:48	TLH

**Micro-extractables by GC/ECD**



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 411 Coopers Cove Laboratory Sample ID: 24D0070-09  
 Grab Date/Time: 04/01/2024 01:10  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	09	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 23:38	ATG
1,2,3-Trichloropropane	09	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 23:38	ATG
1,2-Dibromo-3-chloropropane (DBCP)	09	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 23:38	ATG





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

**Sample I.D.** 46 Ridgecrest

**Laboratory Sample ID:** 24D0070-10

**Grab Date/Time:** 04/01/2024 12:15

**Field Residual Cl:**

**Field pH:**

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	10	SW8260D	<0.40 ug/L		0.40	1	04/03/24 14:26	04/03/24 14:26	RJB
1,1,1-Trichloroethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,1,2,2-Tetrachloroethane	10	SW8260D	<0.40 ug/L		0.40	1	04/03/24 14:26	04/03/24 14:26	RJB
1,1,2-Trichloroethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,1-Dichloroethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,1-Dichloroethylene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,1-Dichloropropene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,2,3-Trichlorobenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,2,3-Trichloropropane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,2,4-Trichlorobenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,2,4-Trimethylbenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,2-Dibromo-3-chloropropane (DBCP)	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,2-Dibromoethane (EDB)	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,2-Dichlorobenzene	10	SW8260D	<0.50 ug/L		0.50	1	04/03/24 14:26	04/03/24 14:26	RJB
1,2-Dichloroethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,2-Dichloropropane	10	SW8260D	<0.50 ug/L		0.50	1	04/03/24 14:26	04/03/24 14:26	RJB
1,3,5-Trimethylbenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,3-Dichlorobenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,3-Dichloropropane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
1,4-Dichlorobenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
2,2-Dichloropropane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
2-Butanone (MEK)	10	SW8260D	<10.0 ug/L		10.0	1	04/03/24 14:26	04/03/24 14:26	RJB
2-Chlorotoluene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
2-Hexanone (MBK)	10	SW8260D	<5.00 ug/L		5.00	1	04/03/24 14:26	04/03/24 14:26	RJB
4-Chlorotoluene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. 46 Ridgecrest

Laboratory Sample ID: 24D0070-10

Grab Date/Time: 04/01/2024 12:15

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
4-Methyl-2-pentanone (MIBK)	10	SW8260D	<5.00 ug/L		5.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Acetone	10	SW8260D	<10.0 ug/L		10.0	1	04/03/24 14:26	04/03/24 14:26	RJB
Benzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Bromobenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Bromochloromethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Bromodichloromethane	10	SW8260D	<0.50 ug/L		0.50	1	04/03/24 14:26	04/03/24 14:26	RJB
Bromoform	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Bromomethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Carbon disulfide	10	SW8260D	<10.0 ug/L		10.0	1	04/03/24 14:26	04/03/24 14:26	RJB
Carbon tetrachloride	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Chlorobenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Chloroethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Chloroform	10	SW8260D	<0.50 ug/L		0.50	1	04/03/24 14:26	04/03/24 14:26	RJB
Chloromethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
cis-1,2-Dichloroethylene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
cis-1,3-Dichloropropene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Dibromochloromethane	10	SW8260D	<0.50 ug/L		0.50	1	04/03/24 14:26	04/03/24 14:26	RJB
Dibromomethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Dichlorodifluoromethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Di-isopropyl ether (DIPE)	10	SW8260D	<5.00 ug/L		5.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Ethylbenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Hexachlorobutadiene	10	SW8260D	<0.80 ug/L		0.80	1	04/03/24 14:26	04/03/24 14:26	RJB
Iodomethane	10	SW8260D	<10.0 ug/L		10.0	1	04/03/24 14:26	04/03/24 14:26	RJB
Isopropylbenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
m+p-Xylenes	10	SW8260D	<2.00 ug/L		2.00	1	04/03/24 14:26	04/03/24 14:26	RJB

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

**Sample I.D.** 46 Ridgecrest

**Laboratory Sample ID:** 24D0070-10

**Grab Date/Time:** 04/01/2024 12:15

**Field Residual Cl:**

**Field pH:**

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	10	SW8260D	<4.00 ug/L		4.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Methyl-t-butyl ether (MTBE)	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Naphthalene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
n-Butylbenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
n-Propylbenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
o-Xylene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
sec-Butylbenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Styrene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
tert-Butylbenzene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Tetrachloroethylene (PCE)	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Toluene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
trans-1,2-Dichloroethylene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
trans-1,3-Dichloropropene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Trichloroethylene	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Trichlorofluoromethane	10	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Vinyl acetate	10	SW8260D	<10.0 ug/L		10.0	1	04/03/24 14:26	04/03/24 14:26	RJB
Vinyl chloride	10	SW8260D	<0.50 ug/L		0.50	1	04/03/24 14:26	04/03/24 14:26	RJB
Xylenes, Total	10	SW8260D	<3.00 ug/L		3.00	1	04/03/24 14:26	04/03/24 14:26	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	10	SW8260D	112 %		70-120		04/03/24 14:26	04/03/24 14:26	RJB
Surr: 4-Bromofluorobenzene (Surr)	10	SW8260D	85.3 %		75-120		04/03/24 14:26	04/03/24 14:26	RJB
Surr: Dibromofluoromethane (Surr)	10	SW8260D	96.9 %		70-130		04/03/24 14:26	04/03/24 14:26	RJB
Surr: Toluene-d8 (Surr)	10	SW8260D	102 %		70-130		04/03/24 14:26	04/03/24 14:26	RJB

**Micro-extractables by GC/ECD**



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 46 Ridgecrest

Laboratory Sample ID: 24D0070-10

Grab Date/Time: 04/01/2024 12:15

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	10	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 23:59	ATG
1,2,3-Trichloropropane	10	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 23:59	ATG
1,2-Dibromo-3-chloropropane (DBCP)	10	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/05/24 23:59	ATG



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

Sample I.D. 1515 Coopers Cove	Laboratory Sample ID: 24D0070-11
Grab Date/Time: 04/01/2024 11:05	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	11	SW8260D	<0.40 ug/L		0.40	1	04/03/24 14:52	04/03/24 14:52	RJB
1,1,1-Trichloroethane	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,1,2,2-Tetrachloroethane	11	SW8260D	<0.40 ug/L		0.40	1	04/03/24 14:52	04/03/24 14:52	RJB
1,1,2-Trichloroethane	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,1-Dichloroethane	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,1-Dichloroethylene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,1-Dichloropropene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,2,3-Trichlorobenzene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,2,3-Trichloropropane	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,2,4-Trichlorobenzene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,2,4-Trimethylbenzene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,2-Dibromo-3-chloropropane (DBCP)	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,2-Dibromoethane (EDB)	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,2-Dichlorobenzene	11	SW8260D	<0.50 ug/L		0.50	1	04/03/24 14:52	04/03/24 14:52	RJB
1,2-Dichloroethane	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,2-Dichloropropane	11	SW8260D	<0.50 ug/L		0.50	1	04/03/24 14:52	04/03/24 14:52	RJB
1,3,5-Trimethylbenzene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,3-Dichlorobenzene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,3-Dichloropropane	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
1,4-Dichlorobenzene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
2,2-Dichloropropane	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
2-Butanone (MEK)	11	SW8260D	<10.0 ug/L		10.0	1	04/03/24 14:52	04/03/24 14:52	RJB
2-Chlorotoluene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
2-Hexanone (MBK)	11	SW8260D	<5.00 ug/L		5.00	1	04/03/24 14:52	04/03/24 14:52	RJB
4-Chlorotoluene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. 1515 Coopers Cove Laboratory Sample ID: 24D0070-11  
 Grab Date/Time: 04/01/2024 11:05  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
4-Methyl-2-pentanone (MIBK)	11	SW8260D	<5.00 ug/L	5.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Acetone	11	SW8260D	<10.0 ug/L	10.0	1	04/03/24 14:52	04/03/24 14:52	RJB	
Benzene	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Bromobenzene	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Bromochloromethane	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Bromodichloromethane	11	SW8260D	<0.50 ug/L	0.50	1	04/03/24 14:52	04/03/24 14:52	RJB	
Bromoform	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Bromomethane	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Carbon disulfide	11	SW8260D	<10.0 ug/L	10.0	1	04/03/24 14:52	04/03/24 14:52	RJB	
Carbon tetrachloride	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Chlorobenzene	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Chloroethane	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Chloroform	11	SW8260D	<0.50 ug/L	0.50	1	04/03/24 14:52	04/03/24 14:52	RJB	
Chloromethane	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
cis-1,2-Dichloroethylene	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
cis-1,3-Dichloropropene	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Dibromochloromethane	11	SW8260D	<0.50 ug/L	0.50	1	04/03/24 14:52	04/03/24 14:52	RJB	
Dibromomethane	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Dichlorodifluoromethane	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Di-isopropyl ether (DIPE)	11	SW8260D	<5.00 ug/L	5.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Ethylbenzene	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
Hexachlorobutadiene	11	SW8260D	<0.80 ug/L	0.80	1	04/03/24 14:52	04/03/24 14:52	RJB	
Iodomethane	11	SW8260D	<10.0 ug/L	10.0	1	04/03/24 14:52	04/03/24 14:52	RJB	
Isopropylbenzene	11	SW8260D	<1.00 ug/L	1.00	1	04/03/24 14:52	04/03/24 14:52	RJB	
m+p-Xylenes	11	SW8260D	<2.00 ug/L	2.00	1	04/03/24 14:52	04/03/24 14:52	RJB	



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 1515 Coopers Cove Laboratory Sample ID: 24D0070-11  
 Grab Date/Time: 04/01/2024 11:05  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	11	SW8260D	<4.00 ug/L		4.00	1	04/03/24 14:52	04/03/24 14:52	RJB
Methyl-t-butyl ether (MTBE)	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
Naphthalene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
n-Butylbenzene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
n-Propylbenzene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
o-Xylene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
sec-Butylbenzene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
Styrene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
tert-Butylbenzene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
Tetrachloroethylene (PCE)	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
Toluene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
trans-1,2-Dichloroethylene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
trans-1,3-Dichloropropene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
Trichloroethylene	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
Trichlorofluoromethane	11	SW8260D	<1.00 ug/L		1.00	1	04/03/24 14:52	04/03/24 14:52	RJB
Vinyl acetate	11	SW8260D	<10.0 ug/L		10.0	1	04/03/24 14:52	04/03/24 14:52	RJB
Vinyl chloride	11	SW8260D	<0.50 ug/L		0.50	1	04/03/24 14:52	04/03/24 14:52	RJB
Xylenes, Total	11	SW8260D	<3.00 ug/L		3.00	1	04/03/24 14:52	04/03/24 14:52	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	11	SW8260D	109 %		70-120		04/03/24 14:52	04/03/24 14:52	RJB
Surr: 4-Bromofluorobenzene (Surr)	11	SW8260D	95.1 %		75-120		04/03/24 14:52	04/03/24 14:52	RJB
Surr: Dibromofluoromethane (Surr)	11	SW8260D	91.1 %		70-130		04/03/24 14:52	04/03/24 14:52	RJB
Surr: Toluene-d8 (Surr)	11	SW8260D	98.9 %		70-130		04/03/24 14:52	04/03/24 14:52	RJB

#### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 1515 Coopers Cove Laboratory Sample ID: 24D0070-11  
 Grab Date/Time: 04/01/2024 11:05  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	11	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 00:21	ATG
1,2,3-Trichloropropane	11	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 00:21	ATG
1,2-Dibromo-3-chloropropane (DBCP)	11	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 00:21	ATG



## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

**Sample I.D.** 1451 Coopers Cove **Laboratory Sample ID:** 24D0070-12

**Grab Date/Time:** 04/01/2024 12:45

**Field Residual Cl:** **Field pH:**

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	12	SW8260D	<0.40 ug/L		0.40	1	04/03/24 15:43	04/03/24 15:43	RJB
1,1,1-Trichloroethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,1,2,2-Tetrachloroethane	12	SW8260D	<0.40 ug/L		0.40	1	04/03/24 15:43	04/03/24 15:43	RJB
1,1,2-Trichloroethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,1-Dichloroethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,1-Dichloroethylene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,1-Dichloropropene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,2,3-Trichlorobenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,2,3-Trichloropropane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,2,4-Trichlorobenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,2,4-Trimethylbenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,2-Dibromo-3-chloropropane (DBCP)	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,2-Dibromoethane (EDB)	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,2-Dichlorobenzene	12	SW8260D	<0.50 ug/L		0.50	1	04/03/24 15:43	04/03/24 15:43	RJB
1,2-Dichloroethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,2-Dichloropropane	12	SW8260D	<0.50 ug/L		0.50	1	04/03/24 15:43	04/03/24 15:43	RJB
1,3,5-Trimethylbenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,3-Dichlorobenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,3-Dichloropropane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
1,4-Dichlorobenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
2,2-Dichloropropane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
2-Butanone (MEK)	12	SW8260D	<10.0 ug/L		10.0	1	04/03/24 15:43	04/03/24 15:43	RJB
2-Chlorotoluene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
2-Hexanone (MBK)	12	SW8260D	<5.00 ug/L		5.00	1	04/03/24 15:43	04/03/24 15:43	RJB
4-Chlorotoluene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. 1451 Coopers Cove Laboratory Sample ID: 24D0070-12  
 Grab Date/Time: 04/01/2024 12:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
4-Methyl-2-pentanone (MIBK)	12	SW8260D	<5.00 ug/L		5.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Acetone	12	SW8260D	<10.0 ug/L		10.0	1	04/03/24 15:43	04/03/24 15:43	RJB
Benzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Bromobenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Bromochloromethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Bromodichloromethane	12	SW8260D	<0.50 ug/L		0.50	1	04/03/24 15:43	04/03/24 15:43	RJB
Bromoform	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Bromomethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Carbon disulfide	12	SW8260D	<10.0 ug/L		10.0	1	04/03/24 15:43	04/03/24 15:43	RJB
Carbon tetrachloride	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Chlorobenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Chloroethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Chloroform	12	SW8260D	<0.50 ug/L		0.50	1	04/03/24 15:43	04/03/24 15:43	RJB
Chloromethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
cis-1,2-Dichloroethylene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
cis-1,3-Dichloropropene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Dibromochloromethane	12	SW8260D	<0.50 ug/L		0.50	1	04/03/24 15:43	04/03/24 15:43	RJB
Dibromomethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Dichlorodifluoromethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Di-isopropyl ether (DIPE)	12	SW8260D	<5.00 ug/L		5.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Ethylbenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Hexachlorobutadiene	12	SW8260D	<0.80 ug/L		0.80	1	04/03/24 15:43	04/03/24 15:43	RJB
Iodomethane	12	SW8260D	<10.0 ug/L		10.0	1	04/03/24 15:43	04/03/24 15:43	RJB
Isopropylbenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
m+p-Xylenes	12	SW8260D	<2.00 ug/L		2.00	1	04/03/24 15:43	04/03/24 15:43	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 1451 Coopers Cove Laboratory Sample ID: 24D0070-12  
 Grab Date/Time: 04/01/2024 12:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	12	SW8260D	<4.00 ug/L		4.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Methyl-t-butyl ether (MTBE)	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Naphthalene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
n-Butylbenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
n-Propylbenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
o-Xylene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
sec-Butylbenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Styrene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
tert-Butylbenzene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Tetrachloroethylene (PCE)	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Toluene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
trans-1,2-Dichloroethylene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
trans-1,3-Dichloropropene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Trichloroethylene	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Trichlorofluoromethane	12	SW8260D	<1.00 ug/L		1.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Vinyl acetate	12	SW8260D	<10.0 ug/L		10.0	1	04/03/24 15:43	04/03/24 15:43	RJB
Vinyl chloride	12	SW8260D	<0.50 ug/L		0.50	1	04/03/24 15:43	04/03/24 15:43	RJB
Xylenes, Total	12	SW8260D	<3.00 ug/L		3.00	1	04/03/24 15:43	04/03/24 15:43	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	12	SW8260D	113 %		70-120		04/03/24 15:43	04/03/24 15:43	RJB
Surr: 4-Bromofluorobenzene (Surr)	12	SW8260D	95.9 %		75-120		04/03/24 15:43	04/03/24 15:43	RJB
Surr: Dibromofluoromethane (Surr)	12	SW8260D	93.3 %		70-130		04/03/24 15:43	04/03/24 15:43	RJB
Surr: Toluene-d8 (Surr)	12	SW8260D	99.5 %		70-130		04/03/24 15:43	04/03/24 15:43	RJB

#### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 1451 Coopers Cove Laboratory Sample ID: 24D0070-12  
 Grab Date/Time: 04/01/2024 12:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	12	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 00:42	ATG
1,2,3-Trichloropropane	12	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 00:42	ATG
1,2-Dibromo-3-chloropropane (DBCP)	12	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 00:42	ATG



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

**Sample I.D.** 1555 Coopers Cove **Laboratory Sample ID:** 24D0070-13

**Grab Date/Time:** 04/01/2024 11:33

**Field Residual Cl:** **Field pH:**

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	13	SW8260D	<0.40 ug/L		0.40	1	04/03/24 16:08	04/03/24 16:08	RJB
1,1,1-Trichloroethane	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,1,2,2-Tetrachloroethane	13	SW8260D	<0.40 ug/L		0.40	1	04/03/24 16:08	04/03/24 16:08	RJB
1,1,2-Trichloroethane	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,1-Dichloroethane	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,1-Dichloroethylene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,1-Dichloropropene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,2,3-Trichlorobenzene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,2,3-Trichloropropane	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,2,4-Trichlorobenzene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,2,4-Trimethylbenzene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,2-Dibromo-3-chloropropane (DBCP)	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,2-Dibromoethane (EDB)	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,2-Dichlorobenzene	13	SW8260D	<0.50 ug/L		0.50	1	04/03/24 16:08	04/03/24 16:08	RJB
1,2-Dichloroethane	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,2-Dichloropropane	13	SW8260D	<0.50 ug/L		0.50	1	04/03/24 16:08	04/03/24 16:08	RJB
1,3,5-Trimethylbenzene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,3-Dichlorobenzene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,3-Dichloropropane	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
1,4-Dichlorobenzene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
2,2-Dichloropropane	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
2-Butanone (MEK)	13	SW8260D	<10.0 ug/L		10.0	1	04/03/24 16:08	04/03/24 16:08	RJB
2-Chlorotoluene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
2-Hexanone (MBK)	13	SW8260D	<5.00 ug/L		5.00	1	04/03/24 16:08	04/03/24 16:08	RJB
4-Chlorotoluene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

### Analytical Results

Sample I.D. 1555 Coopers Cove Laboratory Sample ID: 24D0070-13  
 Grab Date/Time: 04/01/2024 11:33  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
4-Methyl-2-pentanone (MIBK)	13	SW8260D	<5.00 ug/L	5.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Acetone	13	SW8260D	<10.0 ug/L	10.0	1	04/03/24 16:08	04/03/24 16:08	RJB	
Benzene	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Bromobenzene	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Bromochloromethane	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Bromodichloromethane	13	SW8260D	<0.50 ug/L	0.50	1	04/03/24 16:08	04/03/24 16:08	RJB	
Bromoform	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Bromomethane	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Carbon disulfide	13	SW8260D	<10.0 ug/L	10.0	1	04/03/24 16:08	04/03/24 16:08	RJB	
Carbon tetrachloride	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Chlorobenzene	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Chloroethane	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Chloroform	13	SW8260D	<0.50 ug/L	0.50	1	04/03/24 16:08	04/03/24 16:08	RJB	
Chloromethane	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
cis-1,2-Dichloroethylene	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
cis-1,3-Dichloropropene	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Dibromochloromethane	13	SW8260D	<0.50 ug/L	0.50	1	04/03/24 16:08	04/03/24 16:08	RJB	
Dibromomethane	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Dichlorodifluoromethane	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Di-isopropyl ether (DIPE)	13	SW8260D	<5.00 ug/L	5.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Ethylbenzene	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
Hexachlorobutadiene	13	SW8260D	<0.80 ug/L	0.80	1	04/03/24 16:08	04/03/24 16:08	RJB	
Iodomethane	13	SW8260D	<10.0 ug/L	10.0	1	04/03/24 16:08	04/03/24 16:08	RJB	
Isopropylbenzene	13	SW8260D	<1.00 ug/L	1.00	1	04/03/24 16:08	04/03/24 16:08	RJB	
m+p-Xylenes	13	SW8260D	<2.00 ug/L	2.00	1	04/03/24 16:08	04/03/24 16:08	RJB	

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0070**

**Analytical Results**

**Sample I.D.** 1555 Coopers Cove **Laboratory Sample ID:** 24D0070-13

**Grab Date/Time:** 04/01/2024 11:33

**Field Residual Cl:** **Field pH:**

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	13	SW8260D	<4.00 ug/L		4.00	1	04/03/24 16:08	04/03/24 16:08	RJB
Methyl-t-butyl ether (MTBE)	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
Naphthalene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
n-Butylbenzene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
n-Propylbenzene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
o-Xylene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
sec-Butylbenzene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
Styrene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
tert-Butylbenzene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
Tetrachloroethylene (PCE)	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
Toluene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
trans-1,2-Dichloroethylene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
trans-1,3-Dichloropropene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
Trichloroethylene	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
Trichlorofluoromethane	13	SW8260D	<1.00 ug/L		1.00	1	04/03/24 16:08	04/03/24 16:08	RJB
Vinyl acetate	13	SW8260D	<10.0 ug/L		10.0	1	04/03/24 16:08	04/03/24 16:08	RJB
Vinyl chloride	13	SW8260D	<0.50 ug/L		0.50	1	04/03/24 16:08	04/03/24 16:08	RJB
Xylenes, Total	13	SW8260D	<3.00 ug/L		3.00	1	04/03/24 16:08	04/03/24 16:08	RJB
<hr style="border-top: 1px dashed black;"/>									
Surr: 1,2-Dichloroethane-d4 (Surr)	13	SW8260D	108 %		70-120		04/03/24 16:08	04/03/24 16:08	RJB
Surr: 4-Bromofluorobenzene (Surr)	13	SW8260D	97.4 %		75-120		04/03/24 16:08	04/03/24 16:08	RJB
Surr: Dibromofluoromethane (Surr)	13	SW8260D	93.1 %		70-130		04/03/24 16:08	04/03/24 16:08	RJB
Surr: Toluene-d8 (Surr)	13	SW8260D	100 %		70-130		04/03/24 16:08	04/03/24 16:08	RJB

**Micro-extractables by GC/ECD**



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0070

#### Analytical Results

Sample I.D. 1555 Coopers Cove Laboratory Sample ID: 24D0070-13

Grab Date/Time: 04/01/2024 11:33

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	13	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 01:04	ATG
1,2,3-Trichloropropane	13	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 01:04	ATG
1,2-Dibromo-3-chloropropane (DBCP)	13	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 01:04	ATG



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B	Date Issued:	April 09, 2024 11:04
		Project Number:	[none]
		Purchase Order:	4260177-001
Submitted To:	Lorton VA, 22079 Jessica Brock		
Client Site I.D.:	Coopers Cove - State Lead		

### Analytical Summary

**Administrative**

**Preparation Method:**

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
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**Volatile Organic Compounds by GCMS**

**Preparation Method: SW5030B-MS**

24D0070-06	5.00 mL / 5.00 mL	SW8260D	BHD0091	SHD0085	AD40175
24D0070-07	5.00 mL / 5.00 mL	SW8260D	BHD0091	SHD0085	AD40175
24D0070-08	5.00 mL / 5.00 mL	SW8260D	BHD0091	SHD0085	AD40175
24D0070-09	5.00 mL / 5.00 mL	SW8260D	BHD0091	SHD0085	AD40175

**Volatile Organic Compounds by GCMS**

**Preparation Method: SW5030B-MS**

24D0070-01	5.00 mL / 5.00 mL	SW8260D	BHD0092	SHD0087	AC40288
24D0070-02	5.00 mL / 5.00 mL	SW8260D	BHD0092	SHD0087	AC40288
24D0070-03	5.00 mL / 5.00 mL	SW8260D	BHD0092	SHD0087	AC40288
24D0070-04	5.00 mL / 5.00 mL	SW8260D	BHD0092	SHD0087	AC40288
24D0070-05	5.00 mL / 5.00 mL	SW8260D	BHD0092	SHD0087	AC40288

**Volatile Organic Compounds by GCMS**

**Preparation Method: SW5030B-MS**

24D0070-10	5.00 mL / 5.00 mL	SW8260D	BHD0138	SHD0131	AC40288
24D0070-11	5.00 mL / 5.00 mL	SW8260D	BHD0138	SHD0131	AC40288
24D0070-12	5.00 mL / 5.00 mL	SW8260D	BHD0138	SHD0131	AC40288
24D0070-13	5.00 mL / 5.00 mL	SW8260D	BHD0138	SHD0131	AC40288

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
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**Micro-extractables by GC/ECD**

**Preparation Method: SW8011**

24D0070-01	59.7 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-02	59.8 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-03	60.0 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-04	59.7 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-05	60.0 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-06	59.8 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-07	59.4 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-08	60.1 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-09	59.3 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-10	59.8 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-11	59.2 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0070-12	59.3 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
8382 Terminal Rd, Bay B  
Lorton VA, 22079  
Submitted To: Jessica Brock  
Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
Project Number: [none]  
Purchase Order: 4260177-001

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
24D0070-13	60.0 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>			<b>Preparation Method: SW5030B-MS</b>		
BHD0091-BLK1	5.00 mL / 5.00 mL	SW8260D	BHD0091	SHD0085	AD40175
BHD0091-BS1	5.00 mL / 5.00 mL	SW8260D	BHD0091	SHD0085	AD40175
BHD0091-DUP1	5.00 mL / 5.00 mL	SW8260D	BHD0091	SHD0085	AD40175
BHD0091-MRL1	5.00 mL / 5.00 mL	SW8260D	BHD0091		
BHD0091-MRL2	5.00 mL / 5.00 mL	SW8260D	BHD0091		
BHD0091-MS1	5.00 mL / 5.00 mL	SW8260D	BHD0091	SHD0085	AD40175
BHD0092-BLK1	5.00 mL / 5.00 mL	SW8260D	BHD0092	SHD0087	AC40288
BHD0092-BS1	5.00 mL / 5.00 mL	SW8260D	BHD0092	SHD0087	AC40288
BHD0092-DUP1	5.00 mL / 5.00 mL	SW8260D	BHD0092	SHD0087	AC40288
BHD0092-MS1	5.00 mL / 5.00 mL	SW8260D	BHD0092	SHD0087	AC40288
BHD0138-BLK1	5.00 mL / 5.00 mL	SW8260D	BHD0138	SHD0131	AC40288
BHD0138-BLK2	5.00 mL / 5.00 mL	SW8260D	BHD0138	SHD0131	AC40288
BHD0138-BS1	5.00 mL / 5.00 mL	SW8260D	BHD0138	SHD0131	AC40288
BHD0138-BS2	5.00 mL / 5.00 mL	SW8260D	BHD0138	SHD0131	AC40288
BHD0138-DUP1	5.00 mL / 5.00 mL	SW8260D	BHD0138	SHD0131	AC40288
BHD0138-MS1	5.00 mL / 5.00 mL	SW8260D	BHD0138	SHD0131	AC40288

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Micro-extractables by GC/ECD</b>			<b>Preparation Method: SW8011</b>		
BHD0230-BLK1	60.0 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
BHD0230-BS1	60.0 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
BHD0230-MS1	59.8 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
BHD0230-MSD1	59.8 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200



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## Certificate of Analysis

### *Final Report*

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0091 - SW5030B-MS

#### Blank (BHD0091-BLK1)

Prepared &amp; Analyzed: 04/02/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0091 - SW5030B-MS

#### Blank (BHD0091-BLK1)

Prepared &amp; Analyzed: 04/02/2024

Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							
Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	<0.50 ug/L	0.50	ug/L							
Chloromethane	<1.00 ug/L	1.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							
Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0091 - SW5030B-MS

##### Blank (BHD0091-BLK1)

Prepared &amp; Analyzed: 04/02/2024

trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							
Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
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Surr: 1,2-Dichloroethane-d4 (Surr)	49.3		ug/L	50.0		98.6	70-120			
Surr: 4-Bromofluorobenzene (Surr)	48.2		ug/L	50.0		96.4	75-120			
Surr: Dibromofluoromethane (Surr)	49.9		ug/L	50.0		99.7	70-130			
Surr: Toluene-d8 (Surr)	49.3		ug/L	50.0		98.7	70-130			

##### LCS (BHD0091-BS1)

Prepared &amp; Analyzed: 04/02/2024

1,1,1,2-Tetrachloroethane	47.1 ug/L	0.4	ug/L	50.0	ug/L	94.3	80-130			
1,1,1-Trichloroethane	52.6 ug/L	1	ug/L	50.0	ug/L	105	65-130			
1,1,2,2-Tetrachloroethane	40.3 ug/L	0.4	ug/L	50.0	ug/L	80.6	65-130			
1,1,2-Trichloroethane	47.0 ug/L	1	ug/L	50.0	ug/L	94.0	75-125			
1,1-Dichloroethane	52.7 ug/L	1	ug/L	50.0	ug/L	105	70-135			
1,1-Dichloroethylene	53.7 ug/L	1	ug/L	50.0	ug/L	107	70-130			
1,1-Dichloropropene	54.7 ug/L	1	ug/L	50.0	ug/L	109	75-135			
1,2,3-Trichlorobenzene	43.4 ug/L	1	ug/L	50.0	ug/L	86.9	55-140			
1,2,3-Trichloropropane	40.1 ug/L	1	ug/L	50.0	ug/L	80.2	75-125			
1,2,4-Trichlorobenzene	43.5 ug/L	1	ug/L	50.0	ug/L	87.0	65-135			
1,2,4-Trimethylbenzene	45.2 ug/L	1	ug/L	50.0	ug/L	90.5	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	37.2 ug/L	1	ug/L	50.0	ug/L	74.5	50-130			
1,2-Dibromoethane (EDB)	45.0 ug/L	1	ug/L	50.0	ug/L	89.9	80-120			
1,2-Dichlorobenzene	45.3 ug/L	0.5	ug/L	50.0	ug/L	90.7	70-120			
1,2-Dichloroethane	45.9 ug/L	1	ug/L	50.0	ug/L	91.9	70-130			
1,2-Dichloropropane	46.2 ug/L	0.5	ug/L	50.0	ug/L	92.3	75-125			
1,3,5-Trimethylbenzene	44.3 ug/L	1	ug/L	50.0	ug/L	88.6	75-125			
1,3-Dichlorobenzene	44.5 ug/L	1	ug/L	50.0	ug/L	89.0	75-125			
1,3-Dichloropropane	44.9 ug/L	1	ug/L	50.0	ug/L	89.9	75-125			



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0091 - SW5030B-MS

##### LCS (BHD0091-BS1)

Prepared & Analyzed: 04/02/2024

1,4-Dichlorobenzene	44.1 ug/L	1	ug/L	50.0	ug/L	88.2	75-125			
2,2-Dichloropropane	55.9 ug/L	1	ug/L	50.0	ug/L	112	70-135			
2-Butanone (MEK)	43.2 ug/L	10	ug/L	50.0	ug/L	86.3	30-150			
2-Chlorotoluene	47.2 ug/L	1	ug/L	50.0	ug/L	94.3	75-125			
2-Hexanone (MBK)	38.0 ug/L	5	ug/L	50.0	ug/L	75.9	55-130			
4-Chlorotoluene	45.6 ug/L	1	ug/L	50.0	ug/L	91.3	75-130			
4-Isopropyltoluene	46.6 ug/L	1	ug/L	50.0	ug/L	93.3	75-130			
4-Methyl-2-pentanone (MIBK)	42.5 ug/L	5	ug/L	50.0	ug/L	85.1	60-135			
Acetone	36.1 ug/L	10	ug/L	50.0	ug/L	72.1	40-140			
Benzene	48.7 ug/L	1	ug/L	50.0	ug/L	97.5	80-120			
Bromobenzene	45.8 ug/L	1	ug/L	50.0	ug/L	91.5	75-125			
Bromochloromethane	51.1 ug/L	1	ug/L	50.0	ug/L	102	65-130			
Bromodichloromethane	45.7 ug/L	0.5	ug/L	50.0	ug/L	91.5	75-120			
Bromoform	43.7 ug/L	1	ug/L	50.0	ug/L	87.4	70-130			
Bromomethane	45.5 ug/L	1	ug/L	50.0	ug/L	90.9	30-145			
Carbon disulfide	61.5 ug/L	10	ug/L	50.0	ug/L	123	35-160			
Carbon tetrachloride	51.0 ug/L	1	ug/L	50.0	ug/L	102	65-140			
Chlorobenzene	47.0 ug/L	1	ug/L	50.0	ug/L	94.1	80-120			
Chloroethane	48.4 ug/L	1	ug/L	50.0	ug/L	96.8	60-135			
Chloroform	47.9 ug/L	0.5	ug/L	50.0	ug/L	95.8	65-135			
Chloromethane	53.4 ug/L	1	ug/L	50.0	ug/L	107	40-125			
cis-1,2-Dichloroethylene	51.2 ug/L	1	ug/L	50.0	ug/L	102	70-125			
cis-1,3-Dichloropropene	52.9 ug/L	1	ug/L	50.0	ug/L	106	70-130			
Dibromochloromethane	47.9 ug/L	0.5	ug/L	50.0	ug/L	95.9	60-135			
Dibromomethane	45.3 ug/L	1	ug/L	50.0	ug/L	90.6	75-125			
Dichlorodifluoromethane	52.1 ug/L	1	ug/L	50.0	ug/L	104	30-155			
Ethylbenzene	45.7 ug/L	1	ug/L	50.0	ug/L	91.5	75-125			
Hexachlorobutadiene	44.8 ug/L	0.8	ug/L	50.0	ug/L	89.6	50-140			
Isopropylbenzene	41.2 ug/L	1	ug/L	50.0	ug/L	82.4	75-125			
m+p-Xylenes	90.0 ug/L	2	ug/L	100	ug/L	90.0	75-130			
Methylene chloride	46.9 ug/L	4	ug/L	50.0	ug/L	93.8	55-140			



## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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**Batch BHD0091 - SW5030B-MS**
**LCS (BHD0091-BS1)**

Prepared &amp; Analyzed: 04/02/2024

Methyl-t-butyl ether (MTBE)	47.4 ug/L	1	ug/L	50.0	ug/L	94.7	65-125			
Naphthalene	41.8 ug/L	1	ug/L	50.0	ug/L	83.7	55-140			
n-Butylbenzene	45.7 ug/L	1	ug/L	50.0	ug/L	91.3	70-135			
n-Propylbenzene	46.1 ug/L	1	ug/L	50.0	ug/L	92.2	70-130			
o-Xylene	45.0 ug/L	1	ug/L	50.0	ug/L	90.0	80-120			
sec-Butylbenzene	47.9 ug/L	1	ug/L	50.0	ug/L	95.8	70-125			
Styrene	45.3 ug/L	1	ug/L	50.0	ug/L	90.7	65-135			
tert-Butylbenzene	45.3 ug/L	1	ug/L	50.0	ug/L	90.5	70-130			
Tetrachloroethylene (PCE)	51.0 ug/L	1	ug/L	50.0	ug/L	102	45-150			
Toluene	49.3 ug/L	1	ug/L	50.0	ug/L	98.6	75-120			
trans-1,2-Dichloroethylene	52.6 ug/L	1	ug/L	50.0	ug/L	105	60-140			
trans-1,3-Dichloropropene	56.0 ug/L	1	ug/L	50.0	ug/L	112	55-140			
Trichloroethylene	48.4 ug/L	1	ug/L	50.0	ug/L	96.7	70-125			
Trichlorofluoromethane	54.5 ug/L	1	ug/L	50.0	ug/L	109	60-145			
Vinyl chloride	50.3 ug/L	0.5	ug/L	50.0	ug/L	101	50-145			
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Surr: 1,2-Dichloroethane-d4 (Surr)	52.7		ug/L	50.0	ug/L	105	70-120			
Surr: 4-Bromofluorobenzene (Surr)	47.5		ug/L	50.0	ug/L	95.1	75-120			
Surr: Dibromofluoromethane (Surr)	53.6		ug/L	50.0	ug/L	107	70-130			
Surr: Toluene-d8 (Surr)	51.1		ug/L	50.0	ug/L	102	70-130			

**Duplicate (BHD0091-DUP1)**

Source: 24D0057-02

Prepared &amp; Analyzed: 04/02/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40	ug/L			NA	30	
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40	ug/L			NA	30	
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: April 09, 2024 11:04  
 8382 Terminal Rd, Bay B Project Number: [none]  
 Lorton VA, 22079 Purchase Order: 4260177-001  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0091 - SW5030B-MS

##### Duplicate (BHD0091-DUP1)

Source: 24D0057-02

Prepared & Analyzed: 04/02/2024

1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,4-Dichlorobenzene	4.66 ug/L	1.00	ug/L	4.69 ug/L				0.642	30	
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Acetone	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Benzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromochloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromodichloromethane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Bromoform	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Carbon disulfide	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroform	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Chloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	

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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0091 - SW5030B-MS

##### Duplicate (BHD0091-DUP1)

Source: 24D0057-02

Prepared &amp; Analyzed: 04/02/2024

Dibromochloromethane	<0.50 ug/L	0.50	ug/L		<0.50 ug/L			NA	30	
Dibromomethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L		<5.00 ug/L			NA	30	
Ethylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L		<0.80 ug/L			NA	30	
Iodomethane	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
Isopropylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
m+p-Xylenes	<2.00 ug/L	2.00	ug/L		<2.00 ug/L			NA	30	
Methylene chloride	<4.00 ug/L	4.00	ug/L		<4.00 ug/L			NA	30	
Methyl-t-butyl ether (MTBE)	1.12 ug/L	1.00	ug/L		1.25 ug/L			11.0	30	
Naphthalene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
n-Butylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
n-Propylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
o-Xylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Styrene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Toluene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Trichloroethylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Vinyl acetate	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
Vinyl chloride	<0.50 ug/L	0.50	ug/L		<0.50 ug/L			NA	30	
Xylenes, Total	<3.00 ug/L	3.00	ug/L		<3.00 ug/L			NA	30	
Tetrahydrofuran	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
<hr/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	50.4		ug/L	50.0	ug/L	101	70-120			
Surr: 4-Bromofluorobenzene (Surr)	51.6		ug/L	50.0	ug/L	103	75-120			
Surr: Dibromofluoromethane (Surr)	48.9		ug/L	50.0	ug/L	97.7	70-130			



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: April 09, 2024 11:04  
 8382 Terminal Rd, Bay B Project Number: [none]  
 Lorton VA, 22079 Purchase Order: 4260177-001  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0091 - SW5030B-MS

**Duplicate (BHD0091-DUP1)** Source: 24D0057-02 Prepared & Analyzed: 04/02/2024

Surr: Toluene-d8 (Surr) 48.9 ug/L 50.0 ug/L 97.8 70-130

**Matrix Spike (BHD0091-MS1)** Source: 24D0057-01 Prepared & Analyzed: 04/02/2024

1,1,1,2-Tetrachloroethane	50.0 ug/L	0.4	ug/L	50.0	<0.4 ug/L	99.9	80-130			
1,1,1-Trichloroethane	51.1 ug/L	1	ug/L	50.0	<1 ug/L	102	65-130			
1,1,2,2-Tetrachloroethane	46.1 ug/L	0.4	ug/L	50.0	<0.4 ug/L	92.2	65-130			
1,1,2-Trichloroethane	50.7 ug/L	1	ug/L	50.0	<1 ug/L	101	75-125			
1,1-Dichloroethane	51.0 ug/L	1	ug/L	50.0	<1 ug/L	102	70-135			
1,1-Dichloroethylene	51.7 ug/L	1	ug/L	50.0	<1 ug/L	103	50-145			
1,1-Dichloropropene	53.2 ug/L	1	ug/L	50.0	<1 ug/L	106	75-135			
1,2,3-Trichlorobenzene	50.2 ug/L	1	ug/L	50.0	<1 ug/L	100	55-140			
1,2,3-Trichloropropane	46.4 ug/L	1	ug/L	50.0	<1 ug/L	92.8	75-125			
1,2,4-Trichlorobenzene	50.2 ug/L	1	ug/L	50.0	<1 ug/L	100	65-135			
1,2,4-Trimethylbenzene	50.6 ug/L	1	ug/L	50.0	<1 ug/L	101	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	44.3 ug/L	1	ug/L	50.0	<1 ug/L	88.7	50-130			
1,2-Dibromoethane (EDB)	51.5 ug/L	1	ug/L	50.0	<1 ug/L	103	80-120			
1,2-Dichlorobenzene	49.5 ug/L	0.5	ug/L	50.0	<0.5 ug/L	99.0	70-120			
1,2-Dichloroethane	43.2 ug/L	1	ug/L	50.0	<1 ug/L	86.4	70-130			
1,2-Dichloropropane	47.6 ug/L	0.5	ug/L	50.0	<0.5 ug/L	95.3	75-125			
1,3,5-Trimethylbenzene	49.6 ug/L	1	ug/L	50.0	<1 ug/L	99.2	75-124			
1,3-Dichlorobenzene	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.6	75-125			
1,3-Dichloropropane	51.5 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125			
1,4-Dichlorobenzene	48.8 ug/L	1	ug/L	50.0	<1 ug/L	97.5	75-125			
2,2-Dichloropropane	54.0 ug/L	1	ug/L	50.0	<1 ug/L	108	70-135			
2-Butanone (MEK)	43.1 ug/L	10	ug/L	50.0	<10 ug/L	86.3	30-150			
2-Chlorotoluene	51.4 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125			
2-Hexanone (MBK)	54.8 ug/L	5	ug/L	50.0	<5 ug/L	110	55-130			
4-Chlorotoluene	49.5 ug/L	1	ug/L	50.0	<1 ug/L	99.0	75-130			
4-Isopropyltoluene	53.2 ug/L	1	ug/L	50.0	<1 ug/L	106	75-130			
4-Methyl-2-pentanone (MIBK)	51.9 ug/L	5	ug/L	50.0	<5 ug/L	104	60-135			
Acetone	41.1 ug/L	10	ug/L	50.0	<10 ug/L	79.0	40-140			
Benzene	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	80-120			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0091 - SW5030B-MS

##### Matrix Spike (BHD0091-MS1)

Source: 24D0057-01

Prepared &amp; Analyzed: 04/02/2024

Bromobenzene	49.7 ug/L	1	ug/L	50.0	<1 ug/L	99.5	75-125			
Bromochloromethane	48.7 ug/L	1	ug/L	50.0	<1 ug/L	97.4	65-130			
Bromodichloromethane	46.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	93.7	75-136			
Bromoform	48.0 ug/L	1	ug/L	50.0	<1 ug/L	96.0	70-130			
Bromomethane	40.3 ug/L	1	ug/L	50.0	<1 ug/L	80.6	30-145			
Carbon disulfide	46.8 ug/L	10	ug/L	50.0	<10 ug/L	93.5	35-160			
Carbon tetrachloride	54.1 ug/L	1	ug/L	50.0	<1 ug/L	108	65-140			
Chlorobenzene	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	80-120			
Chloroethane	51.1 ug/L	1	ug/L	50.0	<1 ug/L	102	60-135			
Chloroform	45.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	91.6	65-135			
Chloromethane	49.9 ug/L	1	ug/L	50.0	<1 ug/L	99.9	40-125			
cis-1,2-Dichloroethylene	49.3 ug/L	1	ug/L	50.0	<1 ug/L	97.3	70-125			
cis-1,3-Dichloropropene	53.3 ug/L	1	ug/L	50.0	<1 ug/L	107	47-136			
Dibromochloromethane	52.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	106	60-135			
Dibromomethane	47.0 ug/L	1	ug/L	50.0	<1 ug/L	93.9	75-125			
Dichlorodifluoromethane	50.1 ug/L	1	ug/L	50.0	<1 ug/L	100	30-155			
Ethylbenzene	51.1 ug/L	1	ug/L	50.0	<1 ug/L	102	75-125			
Hexachlorobutadiene	53.4 ug/L	0.8	ug/L	50.0	<0.8 ug/L	107	50-140			
Isopropylbenzene	47.6 ug/L	1	ug/L	50.0	<1 ug/L	95.2	75-125			
m+p-Xylenes	101 ug/L	2	ug/L	100	<2 ug/L	101	75-130			
Methylene chloride	42.7 ug/L	4	ug/L	50.0	<4 ug/L	85.4	55-140			
Methyl-t-butyl ether (MTBE)	47.1 ug/L	1	ug/L	50.0	<1 ug/L	94.2	65-125			
Naphthalene	50.8 ug/L	1	ug/L	50.0	<1 ug/L	102	55-140			
n-Butylbenzene	52.1 ug/L	1	ug/L	50.0	<1 ug/L	104	70-135			
n-Propylbenzene	51.0 ug/L	1	ug/L	50.0	<1 ug/L	102	70-130			
o-Xylene	50.0 ug/L	1	ug/L	50.0	<1 ug/L	100	80-120			
sec-Butylbenzene	54.8 ug/L	1	ug/L	50.0	<1 ug/L	110	70-125			
Styrene	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.6	65-135			
tert-Butylbenzene	51.6 ug/L	1	ug/L	50.0	<1 ug/L	103	70-130			
Tetrachloroethylene (PCE)	59.7 ug/L	1	ug/L	50.0	<1 ug/L	119	51-231			
Toluene	54.0 ug/L	1	ug/L	50.0	<1 ug/L	108	75-120			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0091 - SW5030B-MS

##### Matrix Spike (BHD0091-MS1)

Source: 24D0057-01

Prepared &amp; Analyzed: 04/02/2024

trans-1,2-Dichloroethylene	51.2 ug/L	1	ug/L	50.0	<1 ug/L	102	60-140			
trans-1,3-Dichloropropene	58.4 ug/L	1	ug/L	50.0	<1 ug/L	117	55-140			
Trichloroethylene	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	70-125			
Trichlorofluoromethane	53.8 ug/L	1	ug/L	50.0	<1 ug/L	108	60-145			
Vinyl chloride	49.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	98.1	50-145			
<hr style="border-top: 1px dashed black;"/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	50.4		ug/L	50.0	ug/L	101	70-120			
Surr: 4-Bromofluorobenzene (Surr)	49.4		ug/L	50.0	ug/L	98.7	75-120			
Surr: Dibromofluoromethane (Surr)	50.1		ug/L	50.0	ug/L	100	70-130			
Surr: Toluene-d8 (Surr)	53.6		ug/L	50.0	ug/L	107	70-130			

#### Batch BHD0092 - SW5030B-MS

##### Blank (BHD0092-BLK1)

Prepared &amp; Analyzed: 04/02/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0092 - SW5030B-MS

#### Blank (BHD0092-BLK1)

Prepared & Analyzed: 04/02/2024

1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							
Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							
Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	<0.50 ug/L	0.50	ug/L							
Chloromethane	<1.00 ug/L	1.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0092 - SW5030B-MS

##### Blank (BHD0092-BLK1)

Prepared & Analyzed: 04/02/2024

Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							
Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
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Surr: 1,2-Dichloroethane-d4 (Surr)	56.0		ug/L	50.0		112	70-120			
Surr: 4-Bromofluorobenzene (Surr)	48.2		ug/L	50.0		96.4	75-120			
Surr: Dibromofluoromethane (Surr)	45.4		ug/L	50.0		90.7	70-130			
Surr: Toluene-d8 (Surr)	49.8		ug/L	50.0		99.6	70-130			

##### LCS (BHD0092-BS1)

Prepared & Analyzed: 04/02/2024

1,1,1,2-Tetrachloroethane	50.6 ug/L	0.4	ug/L	50.0	ug/L	101	80-130			
1,1,1-Trichloroethane	54.7 ug/L	1	ug/L	50.0	ug/L	109	65-130			
1,1,2,2-Tetrachloroethane	54.8 ug/L	0.4	ug/L	50.0	ug/L	110	65-130			
1,1,2-Trichloroethane	54.3 ug/L	1	ug/L	50.0	ug/L	109	75-125			
1,1-Dichloroethane	48.7 ug/L	1	ug/L	50.0	ug/L	97.4	70-135			
1,1-Dichloroethylene	52.0 ug/L	1	ug/L	50.0	ug/L	104	70-130			





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## Certificate of Analysis

### Final Report

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 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0092 - SW5030B-MS

#### LCS (BHD0092-BS1)

Prepared & Analyzed: 04/02/2024

1,1-Dichloropropene	53.9 ug/L	1	ug/L	50.0	ug/L	108	75-135			
1,2,3-Trichlorobenzene	41.8 ug/L	1	ug/L	50.0	ug/L	83.6	55-140			
1,2,3-Trichloropropane	55.0 ug/L	1	ug/L	50.0	ug/L	110	75-125			
1,2,4-Trichlorobenzene	41.2 ug/L	1	ug/L	50.0	ug/L	82.4	65-135			
1,2,4-Trimethylbenzene	52.8 ug/L	1	ug/L	50.0	ug/L	106	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	55.1 ug/L	1	ug/L	50.0	ug/L	110	50-130			
1,2-Dibromoethane (EDB)	55.4 ug/L	1	ug/L	50.0	ug/L	111	80-120			
1,2-Dichlorobenzene	48.2 ug/L	0.5	ug/L	50.0	ug/L	96.5	70-120			
1,2-Dichloroethane	49.6 ug/L	1	ug/L	50.0	ug/L	99.2	70-130			
1,2-Dichloropropane	58.3 ug/L	0.5	ug/L	50.0	ug/L	117	75-125			
1,3,5-Trimethylbenzene	49.8 ug/L	1	ug/L	50.0	ug/L	99.6	75-125			
1,3-Dichlorobenzene	48.5 ug/L	1	ug/L	50.0	ug/L	97.0	75-125			
1,3-Dichloropropane	50.9 ug/L	1	ug/L	50.0	ug/L	102	75-125			
1,4-Dichlorobenzene	46.5 ug/L	1	ug/L	50.0	ug/L	93.0	75-125			
2,2-Dichloropropane	47.7 ug/L	1	ug/L	50.0	ug/L	95.3	70-135			
2-Butanone (MEK)	43.3 ug/L	10	ug/L	50.0	ug/L	86.5	30-150			
2-Chlorotoluene	50.6 ug/L	1	ug/L	50.0	ug/L	101	75-125			
2-Hexanone (MBK)	54.2 ug/L	5	ug/L	50.0	ug/L	108	55-130			
4-Chlorotoluene	52.1 ug/L	1	ug/L	50.0	ug/L	104	75-130			
4-Isopropyltoluene	49.9 ug/L	1	ug/L	50.0	ug/L	99.8	75-130			
4-Methyl-2-pentanone (MIBK)	55.1 ug/L	5	ug/L	50.0	ug/L	110	60-135			
Acetone	43.6 ug/L	10	ug/L	50.0	ug/L	87.1	40-140			
Benzene	55.2 ug/L	1	ug/L	50.0	ug/L	110	80-120			
Bromobenzene	53.8 ug/L	1	ug/L	50.0	ug/L	108	75-125			
Bromochloromethane	42.5 ug/L	1	ug/L	50.0	ug/L	85.1	65-130			
Bromodichloromethane	53.0 ug/L	0.5	ug/L	50.0	ug/L	106	75-120			
Bromoform	51.3 ug/L	1	ug/L	50.0	ug/L	103	70-130			
Bromomethane	45.9 ug/L	1	ug/L	50.0	ug/L	91.8	30-145			
Carbon disulfide	58.3 ug/L	10	ug/L	50.0	ug/L	117	35-160			
Carbon tetrachloride	57.3 ug/L	1	ug/L	50.0	ug/L	115	65-140			
Chlorobenzene	52.1 ug/L	1	ug/L	50.0	ug/L	104	80-120			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0092 - SW5030B-MS

#### LCS (BHD0092-BS1)

Prepared & Analyzed: 04/02/2024

Chloroethane	51.3 ug/L	1	ug/L	50.0	ug/L	103	60-135			
Chloroform	42.0 ug/L	0.5	ug/L	50.0	ug/L	84.1	65-135			
Chloromethane	66.1 ug/L	1	ug/L	50.0	ug/L	132	40-125			L
cis-1,2-Dichloroethylene	42.4 ug/L	1	ug/L	50.0	ug/L	84.7	70-125			
cis-1,3-Dichloropropene	55.9 ug/L	1	ug/L	50.0	ug/L	112	70-130			
Dibromochloromethane	50.5 ug/L	0.5	ug/L	50.0	ug/L	101	60-135			
Dibromomethane	54.5 ug/L	1	ug/L	50.0	ug/L	109	75-125			
Dichlorodifluoromethane	71.2 ug/L	1	ug/L	50.0	ug/L	142	30-155			
Ethylbenzene	53.5 ug/L	1	ug/L	50.0	ug/L	107	75-125			
Hexachlorobutadiene	42.6 ug/L	0.8	ug/L	50.0	ug/L	85.1	50-140			
Isopropylbenzene	52.3 ug/L	1	ug/L	50.0	ug/L	105	75-125			
m+p-Xylenes	113 ug/L	2	ug/L	100	ug/L	113	75-130			
Methylene chloride	46.6 ug/L	4	ug/L	50.0	ug/L	93.2	55-140			
Methyl-t-butyl ether (MTBE)	41.3 ug/L	1	ug/L	50.0	ug/L	82.7	65-125			
Naphthalene	46.5 ug/L	1	ug/L	50.0	ug/L	93.0	55-140			
n-Butylbenzene	50.4 ug/L	1	ug/L	50.0	ug/L	101	70-135			
n-Propylbenzene	51.0 ug/L	1	ug/L	50.0	ug/L	102	70-130			
o-Xylene	57.0 ug/L	1	ug/L	50.0	ug/L	114	80-120			
sec-Butylbenzene	53.6 ug/L	1	ug/L	50.0	ug/L	107	70-125			
Styrene	43.9 ug/L	1	ug/L	50.0	ug/L	87.8	65-135			
tert-Butylbenzene	50.1 ug/L	1	ug/L	50.0	ug/L	100	70-130			
Tetrachloroethylene (PCE)	58.4 ug/L	1	ug/L	50.0	ug/L	117	45-150			
Toluene	52.2 ug/L	1	ug/L	50.0	ug/L	104	75-120			
trans-1,2-Dichloroethylene	50.4 ug/L	1	ug/L	50.0	ug/L	101	60-140			
trans-1,3-Dichloropropene	58.5 ug/L	1	ug/L	50.0	ug/L	117	55-140			
Trichloroethylene	55.5 ug/L	1	ug/L	50.0	ug/L	111	70-125			
Trichlorofluoromethane	55.8 ug/L	1	ug/L	50.0	ug/L	112	60-145			
Vinyl chloride	52.1 ug/L	0.5	ug/L	50.0	ug/L	104	50-145			
<hr style="border-top: 1px dashed black;"/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	55.3		ug/L	50.0	ug/L	111	70-120			
Surr: 4-Bromofluorobenzene (Surr)	56.4		ug/L	50.0	ug/L	113	75-120			
Surr: Dibromofluoromethane (Surr)	47.2		ug/L	50.0	ug/L	94.3	70-130			



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: April 09, 2024 11:04  
 8382 Terminal Rd, Bay B Project Number: [none]  
 Lorton VA, 22079 Purchase Order: 4260177-001  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0092 - SW5030B-MS

##### LCS (BHD0092-BS1)

Prepared & Analyzed: 04/02/2024

Surr: Toluene-d8 (Surr) 51.1 ug/L 50.0 ug/L 102 70-130

##### Duplicate (BHD0092-DUP1)

Source: 24D0010-02

Prepared & Analyzed: 04/02/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40 ug/L				NA	30	
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40 ug/L				NA	30	
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Acetone	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Benzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: April 09, 2024 11:04  
 8382 Terminal Rd, Bay B Project Number: [none]  
 Lorton VA, 22079 Purchase Order: 4260177-001  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0092 - SW5030B-MS

##### Duplicate (BHD0092-DUP1)

Source: 24D0010-02

Prepared & Analyzed: 04/02/2024

Bromobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromochloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromodichloromethane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Bromoform	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Carbon disulfide	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chlorobenzene	1.63 ug/L	1.00	ug/L	1.71 ug/L				4.79	30	
Chloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroform	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Chloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Dibromochloromethane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Dibromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Ethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L	<0.80 ug/L				NA	30	
Iodomethane	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Isopropylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
m+p-Xylenes	<2.00 ug/L	2.00	ug/L	<2.00 ug/L				NA	30	
Methylene chloride	<4.00 ug/L	4.00	ug/L	<4.00 ug/L				NA	30	
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Naphthalene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
n-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
n-Propylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
o-Xylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Styrene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0092 - SW5030B-MS

##### Duplicate (BHD0092-DUP1)

Source: 24D0010-02

Prepared &amp; Analyzed: 04/02/2024

Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Toluene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Trichloroethylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Vinyl acetate	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
Vinyl chloride	<0.50 ug/L	0.50	ug/L		<0.50 ug/L			NA	30	
Xylenes, Total	<3.00 ug/L	3.00	ug/L		<3.00 ug/L			NA	30	
Tetrahydrofuran	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
<hr style="border-top: 1px dashed black;"/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	55.8		ug/L	50.0	ug/L	112	70-120			
Surr: 4-Bromofluorobenzene (Surr)	47.3		ug/L	50.0	ug/L	94.7	75-120			
Surr: Dibromofluoromethane (Surr)	46.1		ug/L	50.0	ug/L	92.2	70-130			
Surr: Toluene-d8 (Surr)	49.4		ug/L	50.0	ug/L	98.8	70-130			

##### Matrix Spike (BHD0092-MS1)

Source: 24D0010-01

Prepared &amp; Analyzed: 04/02/2024

1,1,1,2-Tetrachloroethane	56.2 ug/L	0.4	ug/L	50.0	<0.4 ug/L	112	80-130			
1,1,1-Trichloroethane	61.5 ug/L	1	ug/L	50.0	<1 ug/L	123	65-130			
1,1,1,2,2-Tetrachloroethane	58.8 ug/L	0.4	ug/L	50.0	<0.4 ug/L	118	65-130			
1,1,2-Trichloroethane	58.0 ug/L	1	ug/L	50.0	<1 ug/L	116	75-125			
1,1-Dichloroethane	56.6 ug/L	1	ug/L	50.0	<1 ug/L	113	70-135			
1,1-Dichloroethylene	55.1 ug/L	1	ug/L	50.0	<1 ug/L	110	50-145			
1,1-Dichloropropene	64.6 ug/L	1	ug/L	50.0	<1 ug/L	129	75-135			
1,2,3-Trichlorobenzene	55.0 ug/L	1	ug/L	50.0	<1 ug/L	110	55-140			
1,2,3-Trichloropropane	57.7 ug/L	1	ug/L	50.0	<1 ug/L	115	75-125			
1,2,4-Trichlorobenzene	53.9 ug/L	1	ug/L	50.0	<1 ug/L	108	65-135			
1,2,4-Trimethylbenzene	61.1 ug/L	1	ug/L	50.0	<1 ug/L	122	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	58.6 ug/L	1	ug/L	50.0	<1 ug/L	117	50-130			
1,2-Dibromoethane (EDB)	58.2 ug/L	1	ug/L	50.0	<1 ug/L	116	80-120			
1,2-Dichlorobenzene	56.2 ug/L	0.5	ug/L	50.0	<0.5 ug/L	112	70-120			
1,2-Dichloroethane	53.5 ug/L	1	ug/L	50.0	<1 ug/L	107	70-130			
1,2-Dichloropropane	61.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	124	75-125			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0092 - SW5030B-MS

##### Matrix Spike (BHD0092-MS1)

Source: 24D0010-01

Prepared &amp; Analyzed: 04/02/2024

1,3,5-Trimethylbenzene	58.7 ug/L	1	ug/L	50.0	<1 ug/L	117	75-124			
1,3-Dichlorobenzene	55.7 ug/L	1	ug/L	50.0	<1 ug/L	111	75-125			
1,3-Dichloropropane	54.7 ug/L	1	ug/L	50.0	<1 ug/L	109	75-125			
1,4-Dichlorobenzene	53.4 ug/L	1	ug/L	50.0	<1 ug/L	107	75-125			
2,2-Dichloropropane	55.4 ug/L	1	ug/L	50.0	<1 ug/L	111	70-135			
2-Butanone (MEK)	51.9 ug/L	10	ug/L	50.0	<10 ug/L	104	30-150			
2-Chlorotoluene	55.4 ug/L	1	ug/L	50.0	<1 ug/L	111	75-125			
2-Hexanone (MBK)	63.2 ug/L	5	ug/L	50.0	<5 ug/L	126	55-130			
4-Chlorotoluene	53.8 ug/L	1	ug/L	50.0	<1 ug/L	108	75-130			
4-Isopropyltoluene	62.2 ug/L	1	ug/L	50.0	<1 ug/L	124	75-130			
4-Methyl-2-pentanone (MIBK)	60.0 ug/L	5	ug/L	50.0	<5 ug/L	120	60-135			
Acetone	49.5 ug/L	10	ug/L	50.0	<10 ug/L	92.5	40-140			
Benzene	59.5 ug/L	1	ug/L	50.0	<1 ug/L	119	80-120			
Bromobenzene	55.2 ug/L	1	ug/L	50.0	<1 ug/L	110	75-125			
Bromochloromethane	50.3 ug/L	1	ug/L	50.0	<1 ug/L	101	65-130			
Bromodichloromethane	55.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	112	75-136			
Bromoform	51.3 ug/L	1	ug/L	50.0	<1 ug/L	103	70-130			
Bromomethane	55.6 ug/L	1	ug/L	50.0	<1 ug/L	111	30-145			
Carbon disulfide	73.0 ug/L	10	ug/L	50.0	<10 ug/L	146	35-160			
Carbon tetrachloride	61.2 ug/L	1	ug/L	50.0	<1 ug/L	122	65-140			
Chlorobenzene	57.2 ug/L	1	ug/L	50.0	<1 ug/L	114	80-120			
Chloroethane	62.2 ug/L	1	ug/L	50.0	<1 ug/L	124	60-135			
Chloroform	48.9 ug/L	0.5	ug/L	50.0	<0.5 ug/L	97.8	65-135			
Chloromethane	78.1 ug/L	1	ug/L	50.0	<1 ug/L	156	40-125			M
cis-1,2-Dichloroethylene	50.5 ug/L	1	ug/L	50.0	<1 ug/L	101	70-125			
cis-1,3-Dichloropropene	60.0 ug/L	1	ug/L	50.0	<1 ug/L	120	47-136			
Dibromochloromethane	54.1 ug/L	0.5	ug/L	50.0	<0.5 ug/L	108	60-135			
Dibromomethane	59.1 ug/L	1	ug/L	50.0	<1 ug/L	118	75-125			
Dichlorodifluoromethane	84.4 ug/L	1	ug/L	50.0	<1 ug/L	169	30-155			M
Ethylbenzene	60.1 ug/L	1	ug/L	50.0	<1 ug/L	120	75-125			
Hexachlorobutadiene	60.4 ug/L	0.8	ug/L	50.0	<0.8 ug/L	121	50-140			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0092 - SW5030B-MS

##### Matrix Spike (BHD0092-MS1)

Source: 24D0010-01

Prepared &amp; Analyzed: 04/02/2024

Isopropylbenzene	59.2 ug/L	1	ug/L	50.0	<1 ug/L	118	75-125			
m+p-Xylenes	120 ug/L	2	ug/L	100	<2 ug/L	120	75-130			
Methylene chloride	49.7 ug/L	4	ug/L	50.0	<4 ug/L	99.4	55-140			
Methyl-t-butyl ether (MTBE)	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.7	65-125			
Naphthalene	56.3 ug/L	1	ug/L	50.0	<1 ug/L	113	55-140			
n-Butylbenzene	63.8 ug/L	1	ug/L	50.0	<1 ug/L	128	70-135			
n-Propylbenzene	57.0 ug/L	1	ug/L	50.0	<1 ug/L	114	70-130			
o-Xylene	62.8 ug/L	1	ug/L	50.0	<1 ug/L	126	80-120			M
sec-Butylbenzene	66.6 ug/L	1	ug/L	50.0	<1 ug/L	133	70-125			M
Styrene	45.5 ug/L	1	ug/L	50.0	<1 ug/L	90.9	65-135			
tert-Butylbenzene	60.8 ug/L	1	ug/L	50.0	<1 ug/L	122	70-130			
Tetrachloroethylene (PCE)	65.8 ug/L	1	ug/L	50.0	<1 ug/L	132	51-231			
Toluene	56.8 ug/L	1	ug/L	50.0	<1 ug/L	114	75-120			
trans-1,2-Dichloroethylene	56.4 ug/L	1	ug/L	50.0	<1 ug/L	113	60-140			
trans-1,3-Dichloropropene	62.1 ug/L	1	ug/L	50.0	<1 ug/L	124	55-140			
Trichloroethylene	57.8 ug/L	1	ug/L	50.0	<1 ug/L	116	70-125			
Trichlorofluoromethane	63.2 ug/L	1	ug/L	50.0	<1 ug/L	126	60-145			
Vinyl chloride	61.4 ug/L	0.5	ug/L	50.0	<0.5 ug/L	123	50-145			
<hr style="border-top: 1px dashed #000;"/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	55.0		ug/L	50.0	ug/L	110	70-120			
Surr: 4-Bromofluorobenzene (Surr)	55.9		ug/L	50.0	ug/L	112	75-120			
Surr: Dibromofluoromethane (Surr)	47.9		ug/L	50.0	ug/L	95.7	70-130			
Surr: Toluene-d8 (Surr)	50.1		ug/L	50.0	ug/L	100	70-130			

#### Batch BHD0138 - SW5030B-MS

##### Blank (BHD0138-BLK1)

Prepared &amp; Analyzed: 04/03/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							



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## Certificate of Analysis

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Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0138 - SW5030B-MS

#### Blank (BHD0138-BLK1)

Prepared & Analyzed: 04/03/2024

1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							
Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							



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Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0138 - SW5030B-MS

#### Blank (BHD0138-BLK1)

Prepared &amp; Analyzed: 04/03/2024

Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	<0.50 ug/L	0.50	ug/L							
Chloromethane	<1.00 ug/L	1.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							
Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							



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### Final Report

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 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0138 - SW5030B-MS

##### Blank (BHD0138-BLK1)

Prepared & Analyzed: 04/03/2024

Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
Surr: 1,2-Dichloroethane-d4 (Surr)	54.1		ug/L	50.0		108	70-120			
Surr: 4-Bromofluorobenzene (Surr)	47.0		ug/L	50.0		94.0	75-120			
Surr: Dibromofluoromethane (Surr)	44.9		ug/L	50.0		89.8	70-130			
Surr: Toluene-d8 (Surr)	43.4		ug/L	50.0		86.9	70-130			

##### LCS (BHD0138-BS1)

Prepared & Analyzed: 04/03/2024

1,1,1,2-Tetrachloroethane	54.8 ug/L	0.4	ug/L	50.0 ug/L		110	80-130			
1,1,1-Trichloroethane	63.2 ug/L	1	ug/L	50.0 ug/L		126	65-130			
1,1,2,2-Tetrachloroethane	48.3 ug/L	0.4	ug/L	50.0 ug/L		96.6	65-130			
1,1,2-Trichloroethane	58.4 ug/L	1	ug/L	50.0 ug/L		117	75-125			
1,1-Dichloroethane	58.8 ug/L	1	ug/L	50.0 ug/L		118	70-135			
1,1-Dichloroethylene	60.0 ug/L	1	ug/L	50.0 ug/L		120	70-130			
1,1-Dichloropropene	64.3 ug/L	1	ug/L	50.0 ug/L		129	75-135			
1,2,3-Trichlorobenzene	47.3 ug/L	1	ug/L	50.0 ug/L		94.6	55-140			
1,2,3-Trichloropropane	49.0 ug/L	1	ug/L	50.0 ug/L		97.9	75-125			
1,2,4-Trichlorobenzene	47.2 ug/L	1	ug/L	50.0 ug/L		94.4	65-135			
1,2,4-Trimethylbenzene	57.3 ug/L	1	ug/L	50.0 ug/L		115	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	53.1 ug/L	1	ug/L	50.0 ug/L		106	50-130			
1,2-Dibromoethane (EDB)	51.1 ug/L	1	ug/L	50.0 ug/L		102	80-120			
1,2-Dichlorobenzene	55.3 ug/L	0.5	ug/L	50.0 ug/L		111	70-120			
1,2-Dichloroethane	53.5 ug/L	1	ug/L	50.0 ug/L		107	70-130			
1,2-Dichloropropane	61.9 ug/L	0.5	ug/L	50.0 ug/L		124	75-125			
1,3,5-Trimethylbenzene	57.4 ug/L	1	ug/L	50.0 ug/L		115	75-125			
1,3-Dichlorobenzene	51.8 ug/L	1	ug/L	50.0 ug/L		104	75-125			
1,3-Dichloropropane	54.0 ug/L	1	ug/L	50.0 ug/L		108	75-125			
1,4-Dichlorobenzene	53.0 ug/L	1	ug/L	50.0 ug/L		106	75-125			
2,2-Dichloropropane	59.5 ug/L	1	ug/L	50.0 ug/L		119	70-135			
2-Butanone (MEK)	51.1 ug/L	10	ug/L	50.0 ug/L		102	30-150			
2-Chlorotoluene	53.0 ug/L	1	ug/L	50.0 ug/L		106	75-125			
2-Hexanone (MBK)	53.0 ug/L	5	ug/L	50.0 ug/L		106	55-130			



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## Certificate of Analysis

### Final Report

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 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
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 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0138 - SW5030B-MS

#### LCS (BHD0138-BS1)

Prepared & Analyzed: 04/03/2024

4-Chlorotoluene	53.5 ug/L	1	ug/L	50.0	ug/L	107	75-130			
4-Isopropyltoluene	62.2 ug/L	1	ug/L	50.0	ug/L	124	75-130			
4-Methyl-2-pentanone (MIBK)	59.6 ug/L	5	ug/L	50.0	ug/L	119	60-135			
Acetone	44.9 ug/L	10	ug/L	50.0	ug/L	89.8	40-140			
Benzene	59.5 ug/L	1	ug/L	50.0	ug/L	119	80-120			
Bromobenzene	50.6 ug/L	1	ug/L	50.0	ug/L	101	75-125			
Bromochloromethane	52.6 ug/L	1	ug/L	50.0	ug/L	105	65-130			
Bromodichloromethane	56.9 ug/L	0.5	ug/L	50.0	ug/L	114	75-120			
Bromoform	47.3 ug/L	1	ug/L	50.0	ug/L	94.7	70-130			
Bromomethane	54.0 ug/L	1	ug/L	50.0	ug/L	108	30-145			
Carbon disulfide	80.2 ug/L	10	ug/L	50.0	ug/L	160	35-160			L
Carbon tetrachloride	62.7 ug/L	1	ug/L	50.0	ug/L	125	65-140			
Chlorobenzene	55.3 ug/L	1	ug/L	50.0	ug/L	111	80-120			
Chloroethane	60.8 ug/L	1	ug/L	50.0	ug/L	122	60-135			
Chloroform	52.7 ug/L	0.5	ug/L	50.0	ug/L	105	65-135			
Chloromethane	75.8 ug/L	1	ug/L	50.0	ug/L	152	40-125			L
cis-1,2-Dichloroethylene	51.7 ug/L	1	ug/L	50.0	ug/L	103	70-125			
cis-1,3-Dichloropropene	60.5 ug/L	1	ug/L	50.0	ug/L	121	70-130			
Dibromochloromethane	54.0 ug/L	0.5	ug/L	50.0	ug/L	108	60-135			
Dibromomethane	58.5 ug/L	1	ug/L	50.0	ug/L	117	75-125			
Dichlorodifluoromethane	81.6 ug/L	1	ug/L	50.0	ug/L	163	30-155			L
Ethylbenzene	58.2 ug/L	1	ug/L	50.0	ug/L	116	75-125			
Hexachlorobutadiene	52.2 ug/L	0.8	ug/L	50.0	ug/L	104	50-140			
Isopropylbenzene	50.1 ug/L	1	ug/L	50.0	ug/L	100	75-125			
m+p-Xylenes	110 ug/L	2	ug/L	100	ug/L	110	75-130			
Methylene chloride	53.2 ug/L	4	ug/L	50.0	ug/L	106	55-140			
Methyl-t-butyl ether (MTBE)	47.5 ug/L	1	ug/L	50.0	ug/L	95.0	65-125			
Naphthalene	48.6 ug/L	1	ug/L	50.0	ug/L	97.2	55-140			
n-Butylbenzene	63.8 ug/L	1	ug/L	50.0	ug/L	128	70-135			
n-Propylbenzene	56.4 ug/L	1	ug/L	50.0	ug/L	113	70-130			
o-Xylene	52.7 ug/L	1	ug/L	50.0	ug/L	105	80-120			



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### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0138 - SW5030B-MS

##### LCS (BHD0138-BS1)

Prepared & Analyzed: 04/03/2024

sec-Butylbenzene	64.1 ug/L	1	ug/L	50.0	ug/L	128	70-125			L
Styrene	41.2 ug/L	1	ug/L	50.0	ug/L	82.4	65-135			
tert-Butylbenzene	56.3 ug/L	1	ug/L	50.0	ug/L	113	70-130			
Tetrachloroethylene (PCE)	57.9 ug/L	1	ug/L	50.0	ug/L	116	45-150			
Toluene	56.3 ug/L	1	ug/L	50.0	ug/L	113	75-120			
trans-1,2-Dichloroethylene	59.6 ug/L	1	ug/L	50.0	ug/L	119	60-140			
trans-1,3-Dichloropropene	62.8 ug/L	1	ug/L	50.0	ug/L	126	55-140			
Trichloroethylene	59.3 ug/L	1	ug/L	50.0	ug/L	119	70-125			
Trichlorofluoromethane	65.3 ug/L	1	ug/L	50.0	ug/L	131	60-145			
Vinyl chloride	60.4 ug/L	0.5	ug/L	50.0	ug/L	121	50-145			
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Surr: 1,2-Dichloroethane-d4 (Surr)	59.3		ug/L	50.0	ug/L	119	70-120			
Surr: 4-Bromofluorobenzene (Surr)	46.8		ug/L	50.0	ug/L	93.7	75-120			
Surr: Dibromofluoromethane (Surr)	50.7		ug/L	50.0	ug/L	101	70-130			
Surr: Toluene-d8 (Surr)	50.6		ug/L	50.0	ug/L	101	70-130			

##### Duplicate (BHD0138-DUP1)

Source: 24D0070-11

Prepared & Analyzed: 04/03/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40	ug/L			NA	30	
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40	ug/L			NA	30	
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L	<0.50	ug/L			NA	30	
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L	<0.50	ug/L			NA	30	

## Certificate of Analysis

### Final Report

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Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0138 - SW5030B-MS

##### Duplicate (BHD0138-DUP1)

Source: 24D0070-11

Prepared &amp; Analyzed: 04/03/2024

1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L		<5.00 ug/L			NA	30	
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L		<5.00 ug/L			NA	30	
Acetone	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
Benzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Bromobenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Bromochloromethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Bromodichloromethane	<0.50 ug/L	0.50	ug/L		<0.50 ug/L			NA	30	
Bromoform	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Bromomethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Carbon disulfide	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Chlorobenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Chloroethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Chloroform	<0.50 ug/L	0.50	ug/L		<0.50 ug/L			NA	30	
Chloromethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Dibromochloromethane	<0.50 ug/L	0.50	ug/L		<0.50 ug/L			NA	30	
Dibromomethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L		<5.00 ug/L			NA	30	
Ethylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove - State Lead

Date Issued: April 09, 2024 11:04  
 Project Number: [none]  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0138 - SW5030B-MS

##### Duplicate (BHD0138-DUP1)

Source: 24D0070-11

Prepared & Analyzed: 04/03/2024

Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L		<0.80 ug/L			NA	30	
Iodomethane	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
Isopropylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
m+p-Xylenes	<2.00 ug/L	2.00	ug/L		<2.00 ug/L			NA	30	
Methylene chloride	<4.00 ug/L	4.00	ug/L		<4.00 ug/L			NA	30	
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Naphthalene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
n-Butylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
n-Propylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
o-Xylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Styrene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Toluene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Trichloroethylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Vinyl acetate	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
Vinyl chloride	<0.50 ug/L	0.50	ug/L		<0.50 ug/L			NA	30	
Xylenes, Total	<3.00 ug/L	3.00	ug/L		<3.00 ug/L			NA	30	
Tetrahydrofuran	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
<hr/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	55.7		ug/L	50.0	ug/L	111	70-120			
Surr: 4-Bromofluorobenzene (Surr)	46.8		ug/L	50.0	ug/L	93.6	75-120			
Surr: Dibromofluoromethane (Surr)	46.0		ug/L	50.0	ug/L	92.1	70-130			
Surr: Toluene-d8 (Surr)	50.4		ug/L	50.0	ug/L	101	70-130			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B	Date Issued:	April 09, 2024 11:04
		Project Number:	[none]
		Purchase Order:	4260177-001
Submitted To:	Lorton VA, 22079 Jessica Brock		
Client Site I.D.:	Coopers Cove - State Lead		

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0138 - SW5030B-MS

##### Matrix Spike (BHD0138-MS1)

Source: 24C1481-01

Prepared &amp; Analyzed: 04/03/2024

1,1,1,2-Tetrachloroethane	54.3 ug/L	0.4	ug/L	50.0	<0.4 ug/L	109	80-130			
1,1,1-Trichloroethane	58.6 ug/L	1	ug/L	50.0	<1 ug/L	117	65-130			
1,1,2,2-Tetrachloroethane	52.2 ug/L	0.4	ug/L	50.0	<0.4 ug/L	104	65-130			
1,1,2-Trichloroethane	55.7 ug/L	1	ug/L	50.0	<1 ug/L	111	75-125			
1,1-Dichloroethane	55.5 ug/L	1	ug/L	50.0	<1 ug/L	111	70-135			
1,1-Dichloroethylene	56.2 ug/L	1	ug/L	50.0	<1 ug/L	112	50-145			
1,1-Dichloropropene	62.4 ug/L	1	ug/L	50.0	<1 ug/L	125	75-135			
1,2,3-Trichlorobenzene	53.5 ug/L	1	ug/L	50.0	<1 ug/L	107	55-140			
1,2,3-Trichloropropane	52.1 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125			
1,2,4-Trichlorobenzene	51.3 ug/L	1	ug/L	50.0	<1 ug/L	103	65-135			
1,2,4-Trimethylbenzene	59.7 ug/L	1	ug/L	50.0	<1 ug/L	119	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	56.6 ug/L	1	ug/L	50.0	<1 ug/L	113	50-130			
1,2-Dibromoethane (EDB)	56.2 ug/L	1	ug/L	50.0	<1 ug/L	112	80-120			
1,2-Dichlorobenzene	54.6 ug/L	0.5	ug/L	50.0	<0.5 ug/L	109	70-120			
1,2-Dichloroethane	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	70-130			
1,2-Dichloropropane	61.1 ug/L	0.5	ug/L	50.0	<0.5 ug/L	122	75-125			
1,3,5-Trimethylbenzene	56.8 ug/L	1	ug/L	50.0	<1 ug/L	114	75-124			
1,3-Dichlorobenzene	54.1 ug/L	1	ug/L	50.0	<1 ug/L	108	75-125			
1,3-Dichloropropane	51.7 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125			
1,4-Dichlorobenzene	52.2 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125			
2,2-Dichloropropane	53.7 ug/L	1	ug/L	50.0	<1 ug/L	107	70-135			
2-Butanone (MEK)	53.7 ug/L	10	ug/L	50.0	<10 ug/L	107	30-150			
2-Chlorotoluene	54.6 ug/L	1	ug/L	50.0	<1 ug/L	109	75-125			
2-Hexanone (MBK)	56.4 ug/L	5	ug/L	50.0	<5 ug/L	113	55-130			
4-Chlorotoluene	56.9 ug/L	1	ug/L	50.0	<1 ug/L	114	75-130			
4-Isopropyltoluene	62.6 ug/L	1	ug/L	50.0	<1 ug/L	125	75-130			
4-Methyl-2-pentanone (MIBK)	56.6 ug/L	5	ug/L	50.0	<5 ug/L	113	60-135			
Acetone	48.1 ug/L	10	ug/L	50.0	<10 ug/L	96.2	40-140			
Benzene	57.7 ug/L	1	ug/L	50.0	<1 ug/L	115	80-120			
Bromobenzene	54.4 ug/L	1	ug/L	50.0	<1 ug/L	109	75-125			
Bromochloromethane	46.0 ug/L	1	ug/L	50.0	<1 ug/L	92.0	65-130			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0138 - SW5030B-MS

##### Matrix Spike (BHD0138-MS1)

Source: 24C1481-01

Prepared &amp; Analyzed: 04/03/2024

Bromodichloromethane	53.1 ug/L	0.5	ug/L	50.0	<0.5 ug/L	106	75-136			
Bromoform	48.8 ug/L	1	ug/L	50.0	<1 ug/L	97.7	70-130			
Bromomethane	52.2 ug/L	1	ug/L	50.0	<1 ug/L	104	30-145			
Carbon disulfide	70.7 ug/L	10	ug/L	50.0	<10 ug/L	141	35-160			
Carbon tetrachloride	59.3 ug/L	1	ug/L	50.0	<1 ug/L	119	65-140			
Chlorobenzene	55.0 ug/L	1	ug/L	50.0	<1 ug/L	110	80-120			
Chloroethane	59.5 ug/L	1	ug/L	50.0	<1 ug/L	119	60-135			
Chloroform	46.9 ug/L	0.5	ug/L	50.0	<0.5 ug/L	93.8	65-135			
Chloromethane	74.1 ug/L	1	ug/L	50.0	<1 ug/L	148	40-125			M
cis-1,2-Dichloroethylene	48.7 ug/L	1	ug/L	50.0	<1 ug/L	97.4	70-125			
cis-1,3-Dichloropropene	58.2 ug/L	1	ug/L	50.0	<1 ug/L	116	47-136			
Dibromochloromethane	51.4 ug/L	0.5	ug/L	50.0	<0.5 ug/L	103	60-135			
Dibromomethane	55.9 ug/L	1	ug/L	50.0	<1 ug/L	112	75-125			
Dichlorodifluoromethane	78.7 ug/L	1	ug/L	50.0	<1 ug/L	157	30-155			M
Ethylbenzene	58.5 ug/L	1	ug/L	50.0	<1 ug/L	117	75-125			
Hexachlorobutadiene	57.4 ug/L	0.8	ug/L	50.0	<0.8 ug/L	115	50-140			
Isopropylbenzene	54.5 ug/L	1	ug/L	50.0	<1 ug/L	109	75-125			
m+p-Xylenes	112 ug/L	2	ug/L	100	<2 ug/L	112	75-130			
Methylene chloride	51.0 ug/L	4	ug/L	50.0	13.8 ug/L	74.5	55-140			
Methyl-t-butyl ether (MTBE)	44.9 ug/L	1	ug/L	50.0	<1 ug/L	89.7	65-125			
Naphthalene	53.0 ug/L	1	ug/L	50.0	<1 ug/L	106	55-140			
n-Butylbenzene	63.3 ug/L	1	ug/L	50.0	<1 ug/L	127	70-135			
n-Propylbenzene	57.7 ug/L	1	ug/L	50.0	<1 ug/L	115	70-130			
o-Xylene	56.4 ug/L	1	ug/L	50.0	<1 ug/L	113	80-120			
sec-Butylbenzene	66.6 ug/L	1	ug/L	50.0	<1 ug/L	133	70-125			M
Styrene	43.9 ug/L	1	ug/L	50.0	<1 ug/L	87.8	65-135			
tert-Butylbenzene	60.9 ug/L	1	ug/L	50.0	<1 ug/L	122	70-130			
Tetrachloroethylene (PCE)	63.1 ug/L	1	ug/L	50.0	<1 ug/L	126	51-231			
Toluene	54.3 ug/L	1	ug/L	50.0	<1 ug/L	109	75-120			
trans-1,2-Dichloroethylene	54.2 ug/L	1	ug/L	50.0	<1 ug/L	108	60-140			
trans-1,3-Dichloropropene	60.3 ug/L	1	ug/L	50.0	<1 ug/L	121	55-140			





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0138 - SW5030B-MS

##### Matrix Spike (BHD0138-MS1)

Source: 24C1481-01

Prepared & Analyzed: 04/03/2024

Trichloroethylene	58.1 ug/L	1	ug/L	50.0	<1 ug/L	116	70-125			
Trichlorofluoromethane	62.6 ug/L	1	ug/L	50.0	<1 ug/L	125	60-145			
Vinyl chloride	57.2 ug/L	0.5	ug/L	50.0	<0.5 ug/L	114	50-145			
-----										
Surr: 1,2-Dichloroethane-d4 (Surr)	52.6		ug/L	50.0	ug/L	105	70-120			
Surr: 4-Bromofluorobenzene (Surr)	51.3		ug/L	50.0	ug/L	103	75-120			
Surr: Dibromofluoromethane (Surr)	47.6		ug/L	50.0	ug/L	95.1	70-130			
Surr: Toluene-d8 (Surr)	49.0		ug/L	50.0	ug/L	98.0	70-130			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Micro-extractables by GC/ECD - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0230 - SW8011

##### Blank (BHD0230-BLK1)

Prepared &amp; Analyzed: 04/05/2024

1,2-Dibromoethane (EDB)	<0.010 ug/L	0.010	ug/L						
1,2,3-Trichloropropane	<0.010 ug/L	0.010	ug/L						
1,2-Dibromo-3-chloropropane (DBCP)	<0.010 ug/L	0.010	ug/L						

##### LCS (BHD0230-BS1)

Prepared &amp; Analyzed: 04/05/2024

1,2-Dibromoethane (EDB)	0.263 ug/L	0.010	ug/L	0.250 ug/L	105	65-135		
1,2,3-Trichloropropane	0.278 ug/L	0.010	ug/L	0.250 ug/L	111	65-135		
1,2-Dibromo-3-chloropropane (DBCP)	0.257 ug/L	0.010	ug/L	0.250 ug/L	103	65-135		

##### Matrix Spike (BHD0230-MS1)

Source: 24C1482-04

Prepared &amp; Analyzed: 04/05/2024

1,2-Dibromoethane (EDB)	0.230 ug/L	0.010	ug/L	0.251	<0.010 ug/L	91.6	65-135	
1,2,3-Trichloropropane	0.183 ug/L	0.010	ug/L	0.251	<0.010 ug/L	73.1	65-135	
1,2-Dibromo-3-chloropropane (DBCP)	0.206 ug/L	0.010	ug/L	0.251	<0.010 ug/L	82.1	65-135	

##### Matrix Spike Dup (BHD0230-MSD1)

Source: 24C1482-04

Prepared &amp; Analyzed: 04/05/2024

1,2-Dibromoethane (EDB)	0.244 ug/L	0.010	ug/L	0.251	<0.010 ug/L	97.2	65-135	5.97	20
1,2,3-Trichloropropane	0.207 ug/L	0.010	ug/L	0.251	<0.010 ug/L	82.4	65-135	12.0	20
1,2-Dibromo-3-chloropropane (DBCP)	0.228 ug/L	0.010	ug/L	0.251	<0.010 ug/L	90.7	65-135	9.96	20

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Certified Analyses included in this Report

Analyte	Certifications
<b>SW8011 in Non-Potable Water</b>	
1,2-Dibromoethane (EDB)	VELAP,NCDEQ
1,2,3-Trichloropropane	VELAP,NCDEQ
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ
<b>SW8260D in Non-Potable Water</b>	
1,1,1,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,1-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromoethane (EDB)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,3,5-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,4-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
2,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
2-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
2-Hexanone (MBK)	VELAP,NCDEQ,PADEP,WVDEP
4-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Isopropyltoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Methyl-2-pentanone (MIBK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Bromobenzene	VELAP,NCDEQ,PADEP,WVDEP
Bromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromodichloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromoform	VELAP,NCDEQ,PADEP,WVDEP

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Certified Analyses included in this Report

Analyte	Certifications
Bromomethane	VELAP,NCDEQ,PADEP,WVDEP
Carbon disulfide	VELAP,NCDEQ,PADEP,WVDEP
Carbon tetrachloride	VELAP,NCDEQ,PADEP,WVDEP
Chlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
Chloroethane	VELAP,NCDEQ,PADEP,WVDEP
Chloroform	VELAP,NCDEQ,PADEP,WVDEP
Chloromethane	VELAP,NCDEQ,PADEP,WVDEP
cis-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
cis-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Dibromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Dibromomethane	VELAP,NCDEQ,PADEP,WVDEP
Dichlorodifluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Di-isopropyl ether (DIPE)	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Hexachlorobutadiene	VELAP,NCDEQ,PADEP,WVDEP
Iodomethane	VELAP,NCDEQ,PADEP,WVDEP
Isopropylbenzene	VELAP,NCDEQ,PADEP,WVDEP
m+p-Xylenes	VELAP,NCDEQ,PADEP,WVDEP
Methylene chloride	VELAP,NCDEQ,PADEP,WVDEP
Methyl-t-butyl ether (MTBE)	VELAP,NCDEQ,PADEP,WVDEP
Naphthalene	VELAP,NCDEQ,PADEP,WVDEP
n-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
n-Propylbenzene	VELAP,NCDEQ,PADEP,WVDEP
o-Xylene	VELAP,NCDEQ,PADEP,WVDEP
sec-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Styrene	VELAP,NCDEQ,PADEP,WVDEP
tert-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Tetrachloroethylene (PCE)	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Trichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
Trichlorofluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Vinyl acetate	VELAP,NCDEQ,PADEP,WVDEP
Vinyl chloride	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2024
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
SCDHEC	South Carolina Dept of Health and Environmental	93016	06/14/2024
TXCEQ	Texas Comm on Environmental Quality #T104704	T104704576	05/31/2024
VELAP	NELAP-Virginia Certificate #12806	460021	06/14/2024
WVDEP	West Virginia DEP	350	11/30/2024



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Summary of Data Qualifiers

L LCS recovery is outside of established acceptance limits

M Matrix spike recovery is outside established acceptance limits

RPD Relative Percent Difference

Qual Qualifiers

-RE Denotes sample was re-analyzed

D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

**CHAIN OF CUSTODY**

COMPANY NAME: <i>Total Env Concepts</i>			INVOICE TO: <i>AP@teci.pro</i>			PROJECT NAME/Quote #: <i>Coopers Cove</i>												
CONTACT: <i>Shanna Hrynial</i>			INVOICE CONTACT: <i>Tyane Best</i>			SITE NAME: <i>"</i>												
ADDRESS:			INVOICE ADDRESS:			PROJECT NUMBER:												
PHONE #: <i>(804) 389-7983</i>			INVOICE PHONE #:			P.O. #: <i>4260155-001</i>												
FAX #:		EMAIL: <i>shrynial@teci.pro</i>			Pretreatment Program:													
Is sample for compliance reporting? YES <input checked="" type="radio"/> NO		Regulatory State:		Is sample from a chlorinated supply? YES <input checked="" type="radio"/> NO		PWS I.D. #:												
SAMPLER NAME (PRINT): <i>Shanna Hrynial</i>			SAMPLER SIGNATURE: <i>[Signature]</i>			Turn Around Time: Circle 10 <input checked="" type="radio"/> 5 Days or <u>  </u> Day(s)												
Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other _____							COMMENTS											
LAB USE ONLY					ANALYSIS													
Cooler Temp					Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol  <i>DEP State Lead Rates</i>													
Therm ID: <u>  271  </u>																		
Observed Temp °C <u>  3.3  </u>																		
Correction Factor °C <u>  0.0  </u>																		
Corrected Temp °C <u>  3.3  </u>																		
CLIENT SAMPLE I.D.					PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)													
	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	VOCs 8260	EDB 8011						
1) 76 Patset	X					4/1/24	1035	1400	GW	5	X	X						
2) 1987 Coopers Cove							1050											
3) 5444 Windermere							1135											
4) Walter's Greenhouse							1145											
5) 17 Valley view							1200											
6) 1326 Coopers Cove							1220											
7) 55 Valley view							1245											
8) 350 Bridgcrest							1315											
9) 411 Coopers Cove							110											
10) 460 Ridgcrest							1215											
RELINQUISHED:	DATE / TIME		RECEIVED:		DATE / TIME		QC Data Package		LAB USE ONLY									
<i>[Signature]</i>	4/2/24 1000		<i>[Signature]</i>		4/2/24 1000		Level III <input type="checkbox"/>		TEC-Springfield 24D0070 Coopers Cove - State Lead Recd: 04/02/2024 Due: 04/09/2024									
RELINQUISHED:	DATE / TIME		RECEIVED:		DATE / TIME		Level IV <input type="checkbox"/>											
RELINQUISHED:	DATE / TIME		RECEIVED:		DATE / TIME		Custody Seals used and intact? <input checked="" type="checkbox"/> (Y/N)											
RELINQUISHED:	DATE / TIME		RECEIVED:		DATE / TIME		Received on ice? <input checked="" type="checkbox"/> (Y/N)											







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### Certificate of Analysis

#### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 09, 2024 11:04
Submitted To:	Jessica Brock	Project Number:	[none]
Client Site I.D.:	Coopers Cove - State Lead	Purchase Order:	4260177-001

### Sample Conditions Checklist

Samples Received at:	3.30°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	Yes
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	Yes
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes

See Work Order 24D0069 for Trip Blanks. HEG 4/2/24 1550



**Attachment C**

**Laboratory Analytical Report (4/2/2024)**



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## Certificate of Analysis

*Final Report*

Laboratory Order ID 24D0224

Client Name:	Total Environmental Concepts-Lorton	Date Received:	April 3, 2024 11:55
	8382 Terminal Rd, Bay B	Date Issued:	April 10, 2024 15:41
	Lorton, VA 22079	Project Number:	4260177-001
Submitted To:	Shanna Hryvniak	Purchase Order:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA		

Enclosed are the results of analyses for samples received by the laboratory on 04/03/2024 11:55-04/10/2024 14:26. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads 'Ted Soyars'.

Ted Soyars  
Technical Director

### End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

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VELAP ID 460021



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Shanna Hryvniak	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### ANALYTICAL REPORT FOR SAMPLES

#### Laboratory Order ID 24D0224

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
17 Ridgecrest Rd	24D0224-01	Ground Water	04/02/2024 01:30	04/03/2024 11:55
Trip Blank	24D0224-02	Ground Water	12/12/2023 12:05	04/03/2024 11:55
1601 Coopers Cove Rd	24D0224-03	Ground Water	04/02/2024 02:01	04/03/2024 11:55
2234 Coopers Cove Rd	24D0224-04	Ground Water	04/02/2024 02:25	04/03/2024 11:55
5290 Pitzer Rd	24D0224-05	Ground Water	04/02/2024 02:55	04/03/2024 11:55
5281 Pitzer Rd	24D0224-06	Ground Water	04/02/2024 03:30	04/03/2024 11:55

#### Laboratory Order ID 24D0561

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
17 Ridgecrest Rd	24D0561-01	Ground Water	04/02/2024 13:30	04/10/2024 14:26
Trip Blank	24D0561-02	Ground Water	12/12/2023 12:05	04/10/2024 14:26
1601 Coopers Cove Rd	24D0561-03	Ground Water	04/02/2024 14:01	04/10/2024 14:26
2234 Coopers Cove Rd	24D0561-04	Ground Water	04/02/2024 14:25	04/10/2024 14:26
5290 Pitzer Rd	24D0561-05	Ground Water	04/02/2024 14:55	04/10/2024 14:26
5281 Pitzer Rd	24D0561-06	Ground Water	04/02/2024 15:30	04/10/2024 14:26



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0224

### Analytical Results

Sample I.D. 17 Ridgecrest Rd Laboratory Sample ID: 24D0224-01  
 Grab Date/Time: 04/02/2024 01:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Benzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	RJB
Ethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	RJB
m+p-Xylenes	01	SW8260D	<2.00 ug/L		2.00	1	04/08/24 15:03	04/08/24 15:03	RJB
Methyl-t-butyl ether (MTBE)	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	RJB
o-Xylene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	RJB
Toluene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	RJB
Xylenes, Total	01	SW8260D	<3.00 ug/L		3.00	1	04/08/24 15:03	04/08/24 15:03	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	01	SW8260D	96.3 %		70-120		04/08/24 15:03	04/08/24 15:03	RJB
Surr: 4-Bromofluorobenzene (Surr)	01	SW8260D	102 %		75-120		04/08/24 15:03	04/08/24 15:03	RJB
Surr: Dibromofluoromethane (Surr)	01	SW8260D	99.3 %		80-119		04/08/24 15:03	04/08/24 15:03	RJB
Surr: Toluene-d8 (Surr)	01	SW8260D	96.6 %		85-120		04/08/24 15:03	04/08/24 15:03	RJB
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	01	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 02:09	ATG
1,2,3-Trichloropropane	01	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 02:09	ATG
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 02:09	ATG



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0224

**Analytical Results**

Sample I.D.	Trip Blank			Laboratory Sample ID:	24D0224-02				
<b>Grab Date/Time:</b>		12/12/2023 12:05							
<b>Field Residual Cl:</b>				<b>Field pH:</b>					
Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Benzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	RJB
Ethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	RJB
m+p-Xylenes	02	SW8260D	<2.00 ug/L		2.00	1	04/08/24 14:16	04/08/24 14:16	RJB
Methyl-t-butyl ether (MTBE)	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	RJB
o-Xylene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	RJB
Toluene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	RJB
Xylenes, Total	02	SW8260D	<3.00 ug/L		3.00	1	04/08/24 14:16	04/08/24 14:16	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	02	SW8260D	101 %		70-120		04/08/24 14:16	04/08/24 14:16	RJB
Surr: 4-Bromofluorobenzene (Surr)	02	SW8260D	101 %		75-120		04/08/24 14:16	04/08/24 14:16	RJB
Surr: Dibromofluoromethane (Surr)	02	SW8260D	99.1 %		80-119		04/08/24 14:16	04/08/24 14:16	RJB
Surr: Toluene-d8 (Surr)	02	SW8260D	98.3 %		85-120		04/08/24 14:16	04/08/24 14:16	RJB
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	02	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 02:31	ATG
1,2,3-Trichloropropane	02	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 02:31	ATG
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:40	04/06/24 02:31	ATG

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0224

#### Analytical Results

Sample I.D. 1601 Coopers Cove Rd	Laboratory Sample ID: 24D0224-03
Grab Date/Time: 04/02/2024 02:01	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Benzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	RJB
Ethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	RJB
m+p-Xylenes	03	SW8260D	<2.00 ug/L		2.00	1	04/08/24 15:26	04/08/24 15:26	RJB
Methyl-t-butyl ether (MTBE)	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	RJB
o-Xylene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	RJB
Toluene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	RJB
Xylenes, Total	03	SW8260D	<3.00 ug/L		3.00	1	04/08/24 15:26	04/08/24 15:26	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	03	SW8260D	95.4 %		70-120		04/08/24 15:26	04/08/24 15:26	RJB
Surr: 4-Bromofluorobenzene (Surr)	03	SW8260D	101 %		75-120		04/08/24 15:26	04/08/24 15:26	RJB
Surr: Dibromofluoromethane (Surr)	03	SW8260D	98.6 %		80-119		04/08/24 15:26	04/08/24 15:26	RJB
Surr: Toluene-d8 (Surr)	03	SW8260D	98.6 %		85-120		04/08/24 15:26	04/08/24 15:26	RJB
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	03	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 12:18	ATG
1,2,3-Trichloropropane	03	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 12:18	ATG
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 12:18	ATG

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

**Laboratory Order ID: 24D0224**

**Analytical Results**

<b>Sample I.D.</b> 2234 Coopers Cove Rd	<b>Laboratory Sample ID:</b> 24D0224-04
<b>Grab Date/Time:</b> 04/02/2024 02:25	
<b>Field Residual Cl:</b>	<b>Field pH:</b>

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Benzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	RJB
Ethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	RJB
m+p-Xylenes	04	SW8260D	<2.00 ug/L		2.00	1	04/08/24 15:49	04/08/24 15:49	RJB
Methyl-t-butyl ether (MTBE)	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	RJB
o-Xylene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	RJB
Toluene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	RJB
Xylenes, Total	04	SW8260D	<3.00 ug/L		3.00	1	04/08/24 15:49	04/08/24 15:49	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	04	SW8260D	96.6 %		70-120		04/08/24 15:49	04/08/24 15:49	RJB
Surr: 4-Bromofluorobenzene (Surr)	04	SW8260D	100 %		75-120		04/08/24 15:49	04/08/24 15:49	RJB
Surr: Dibromofluoromethane (Surr)	04	SW8260D	95.3 %		80-119		04/08/24 15:49	04/08/24 15:49	RJB
Surr: Toluene-d8 (Surr)	04	SW8260D	99.3 %		85-120		04/08/24 15:49	04/08/24 15:49	RJB
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	04	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 12:39	ATG
1,2,3-Trichloropropane	04	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 12:39	ATG
1,2-Dibromo-3-chloropropane (DBCP)	04	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 12:39	ATG



## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0224

**Analytical Results**

Sample I.D. 5290 Pitzer Rd	Laboratory Sample ID: 24D0224-05
Grab Date/Time: 04/02/2024 02:55	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Benzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	RJB
Ethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	RJB
m+p-Xylenes	05	SW8260D	<2.00 ug/L		2.00	1	04/08/24 16:13	04/08/24 16:13	RJB
Methyl-t-butyl ether (MTBE)	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	RJB
o-Xylene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	RJB
Toluene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	RJB
Xylenes, Total	05	SW8260D	<3.00 ug/L		3.00	1	04/08/24 16:13	04/08/24 16:13	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	05	SW8260D	102 %		70-120		04/08/24 16:13	04/08/24 16:13	RJB
Surr: 4-Bromofluorobenzene (Surr)	05	SW8260D	100 %		75-120		04/08/24 16:13	04/08/24 16:13	RJB
Surr: Dibromofluoromethane (Surr)	05	SW8260D	99.1 %		80-119		04/08/24 16:13	04/08/24 16:13	RJB
Surr: Toluene-d8 (Surr)	05	SW8260D	97.6 %		85-120		04/08/24 16:13	04/08/24 16:13	RJB
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	05	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 13:01	ATG
1,2,3-Trichloropropane	05	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 13:01	ATG
1,2-Dibromo-3-chloropropane (DBCP)	05	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 13:01	ATG

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0224

**Analytical Results**

Sample I.D. 5281 Pitzer Rd	Laboratory Sample ID: 24D0224-06
Grab Date/Time: 04/02/2024 03:30	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Benzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	RJB
Ethylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	RJB
m+p-Xylenes	06	SW8260D	<2.00 ug/L		2.00	1	04/08/24 16:36	04/08/24 16:36	RJB
Methyl-t-butyl ether (MTBE)	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	RJB
o-Xylene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	RJB
Toluene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	RJB
Xylenes, Total	06	SW8260D	<3.00 ug/L		3.00	1	04/08/24 16:36	04/08/24 16:36	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	06	SW8260D	93.6 %		70-120		04/08/24 16:36	04/08/24 16:36	RJB
Surr: 4-Bromofluorobenzene (Surr)	06	SW8260D	103 %		75-120		04/08/24 16:36	04/08/24 16:36	RJB
Surr: Dibromofluoromethane (Surr)	06	SW8260D	102 %		80-119		04/08/24 16:36	04/08/24 16:36	RJB
Surr: Toluene-d8 (Surr)	06	SW8260D	98.8 %		85-120		04/08/24 16:36	04/08/24 16:36	RJB
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	06	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 13:22	ATG
1,2,3-Trichloropropane	06	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 13:22	ATG
1,2-Dibromo-3-chloropropane (DBCP)	06	SW8011	<0.010 ug/L		0.010	1	04/05/24 12:00	04/06/24 13:22	ATG



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

#### Analytical Results

Sample I.D. 17 Ridgecrest Rd Laboratory Sample ID: 24D0561-01  
 Grab Date/Time: 04/02/2024 13:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	04/08/24 15:03	04/08/24 15:03	CGN
1,1,1-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,1,2,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	04/08/24 15:03	04/08/24 15:03	CGN
1,1,2-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,1-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,1-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,1-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,2,3-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,2,3-Trichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,2,4-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,2,4-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,2-Dibromoethane (EDB)	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,2-Dichlorobenzene	01	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:03	04/08/24 15:03	CGN
1,2-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,2-Dichloropropane	01	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:03	04/08/24 15:03	CGN
1,3,5-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,3-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,3-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
1,4-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
2,2-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
2-Butanone (MEK)	01	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:03	04/08/24 15:03	CGN
2-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
2-Hexanone (MBK)	01	SW8260D	<5.00 ug/L		5.00	1	04/08/24 15:03	04/08/24 15:03	CGN
4-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0561

#### Analytical Results

Sample I.D. 17 Ridgecrest Rd	Laboratory Sample ID: 24D0561-01
Grab Date/Time: 04/02/2024 13:30	
Field Residual CI:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
4-Methyl-2-pentanone (MIBK)	01	SW8260D	<5.00 ug/L		5.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Acetone	01	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:03	04/08/24 15:03	CGN
Benzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Bromobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Bromochloromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Bromodichloromethane	01	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:03	04/08/24 15:03	CGN
Bromoform	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Bromomethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Carbon disulfide	01	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:03	04/08/24 15:03	CGN
Carbon tetrachloride	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Chlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Chloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Chloroform	01	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:03	04/08/24 15:03	CGN
Chloromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
cis-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
cis-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Dibromochloromethane	01	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:03	04/08/24 15:03	CGN
Dibromomethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Dichlorodifluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Di-isopropyl ether (DIPE)	01	SW8260D	<5.00 ug/L		5.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Ethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Hexachlorobutadiene	01	SW8260D	<0.80 ug/L		0.80	1	04/08/24 15:03	04/08/24 15:03	CGN
Iodomethane	01	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:03	04/08/24 15:03	CGN
Isopropylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
m+p-Xylenes	01	SW8260D	<2.00 ug/L		2.00	1	04/08/24 15:03	04/08/24 15:03	CGN



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

#### Analytical Results

Sample I.D. 17 Ridgecrest Rd Laboratory Sample ID: 24D0561-01  
 Grab Date/Time: 04/02/2024 13:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	01	SW8260D	<4.00 ug/L		4.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Methyl-t-butyl ether (MTBE)	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Naphthalene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
n-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
n-Propylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
o-Xylene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
sec-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Styrene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
tert-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Tetrachloroethylene (PCE)	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Toluene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
trans-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
trans-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Trichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Trichlorofluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Vinyl acetate	01	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:03	04/08/24 15:03	CGN
Vinyl chloride	01	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:03	04/08/24 15:03	CGN
Xylenes, Total	01	SW8260D	<3.00 ug/L		3.00	1	04/08/24 15:03	04/08/24 15:03	CGN
Surr: 1,2-Dichloroethane-d4 (Surr)	01	SW8260D	96.3 %		70-120		04/08/24 15:03	04/08/24 15:03	CGN
Surr: 4-Bromofluorobenzene (Surr)	01	SW8260D	102 %		75-120		04/08/24 15:03	04/08/24 15:03	CGN
Surr: Dibromofluoromethane (Surr)	01	SW8260D	99.3 %		70-130		04/08/24 15:03	04/08/24 15:03	CGN
Surr: Toluene-d8 (Surr)	01	SW8260D	96.6 %		70-130		04/08/24 15:03	04/08/24 15:03	CGN



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

#### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24D0561-02

Grab Date/Time: 12/12/2023 12:05

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	04/08/24 14:16	04/08/24 14:16	CGN
1,1,1-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,1,2,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	04/08/24 14:16	04/08/24 14:16	CGN
1,1,2-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,1-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,1-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,1-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,2,3-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,2,3-Trichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,2,4-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,2,4-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,2-Dibromoethane (EDB)	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,2-Dichlorobenzene	02	SW8260D	<0.50 ug/L		0.50	1	04/08/24 14:16	04/08/24 14:16	CGN
1,2-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,2-Dichloropropane	02	SW8260D	<0.50 ug/L		0.50	1	04/08/24 14:16	04/08/24 14:16	CGN
1,3,5-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,3-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,3-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
1,4-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
2,2-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
2-Butanone (MEK)	02	SW8260D	<10.0 ug/L		10.0	1	04/08/24 14:16	04/08/24 14:16	CGN
2-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
2-Hexanone (MBK)	02	SW8260D	<5.00 ug/L		5.00	1	04/08/24 14:16	04/08/24 14:16	CGN
4-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24D0561-02

Grab Date/Time: 12/12/2023 12:05

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
4-Methyl-2-pentanone (MIBK)	02	SW8260D	<5.00 ug/L		5.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Acetone	02	SW8260D	<10.0 ug/L		10.0	1	04/08/24 14:16	04/08/24 14:16	CGN
Benzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Bromobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Bromochloromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Bromodichloromethane	02	SW8260D	<0.50 ug/L		0.50	1	04/08/24 14:16	04/08/24 14:16	CGN
Bromoform	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Bromomethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Carbon disulfide	02	SW8260D	<10.0 ug/L		10.0	1	04/08/24 14:16	04/08/24 14:16	CGN
Carbon tetrachloride	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Chlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Chloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Chloroform	02	SW8260D	<0.50 ug/L		0.50	1	04/08/24 14:16	04/08/24 14:16	CGN
Chloromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
cis-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
cis-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Dibromochloromethane	02	SW8260D	<0.50 ug/L		0.50	1	04/08/24 14:16	04/08/24 14:16	CGN
Dibromomethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Dichlorodifluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Di-isopropyl ether (DIPE)	02	SW8260D	<5.00 ug/L		5.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Ethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Hexachlorobutadiene	02	SW8260D	<0.80 ug/L		0.80	1	04/08/24 14:16	04/08/24 14:16	CGN
Iodomethane	02	SW8260D	<10.0 ug/L		10.0	1	04/08/24 14:16	04/08/24 14:16	CGN
Isopropylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
m+p-Xylenes	02	SW8260D	<2.00 ug/L		2.00	1	04/08/24 14:16	04/08/24 14:16	CGN



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0561

**Analytical Results**

Sample I.D. Trip Blank	Laboratory Sample ID: 24D0561-02
Grab Date/Time: 12/12/2023 12:05	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	02	SW8260D	<4.00 ug/L		4.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Methyl-t-butyl ether (MTBE)	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Naphthalene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
n-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
n-Propylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
o-Xylene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
sec-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Styrene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
tert-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Tetrachloroethylene (PCE)	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Toluene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
trans-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
trans-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Trichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Trichlorofluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Vinyl acetate	02	SW8260D	<10.0 ug/L		10.0	1	04/08/24 14:16	04/08/24 14:16	CGN
Vinyl chloride	02	SW8260D	<0.50 ug/L		0.50	1	04/08/24 14:16	04/08/24 14:16	CGN
Xylenes, Total	02	SW8260D	<3.00 ug/L		3.00	1	04/08/24 14:16	04/08/24 14:16	CGN
Surr: 1,2-Dichloroethane-d4 (Surr)	02	SW8260D	101 %		70-120		04/08/24 14:16	04/08/24 14:16	CGN
Surr: 4-Bromofluorobenzene (Surr)	02	SW8260D	101 %		75-120		04/08/24 14:16	04/08/24 14:16	CGN
Surr: Dibromofluoromethane (Surr)	02	SW8260D	99.1 %		70-130		04/08/24 14:16	04/08/24 14:16	CGN
Surr: Toluene-d8 (Surr)	02	SW8260D	98.3 %		70-130		04/08/24 14:16	04/08/24 14:16	CGN





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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

### Analytical Results

Sample I.D. 1601 Coopers Cove Rd Laboratory Sample ID: 24D0561-03  
 Grab Date/Time: 04/02/2024 14:01  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	04/08/24 15:26	04/08/24 15:26	CGN
1,1,1-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,1,2,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	04/08/24 15:26	04/08/24 15:26	CGN
1,1,2-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,1-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,1-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,1-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,2,3-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,2,3-Trichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,2,4-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,2,4-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,2-Dibromoethane (EDB)	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,2-Dichlorobenzene	03	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:26	04/08/24 15:26	CGN
1,2-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,2-Dichloropropane	03	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:26	04/08/24 15:26	CGN
1,3,5-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,3-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,3-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
1,4-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
2,2-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
2-Butanone (MEK)	03	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:26	04/08/24 15:26	CGN
2-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
2-Hexanone (MBK)	03	SW8260D	<5.00 ug/L		5.00	1	04/08/24 15:26	04/08/24 15:26	CGN
4-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

### Analytical Results

Sample I.D. 1601 Coopers Cove Rd Laboratory Sample ID: 24D0561-03  
 Grab Date/Time: 04/02/2024 14:01  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
4-Methyl-2-pentanone (MIBK)	03	SW8260D	<5.00 ug/L		5.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Acetone	03	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:26	04/08/24 15:26	CGN
Benzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Bromobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Bromochloromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Bromodichloromethane	03	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:26	04/08/24 15:26	CGN
Bromoform	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Bromomethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Carbon disulfide	03	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:26	04/08/24 15:26	CGN
Carbon tetrachloride	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Chlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Chloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Chloroform	03	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:26	04/08/24 15:26	CGN
Chloromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
cis-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
cis-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Dibromochloromethane	03	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:26	04/08/24 15:26	CGN
Dibromomethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Dichlorodifluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Di-isopropyl ether (DIPE)	03	SW8260D	<5.00 ug/L		5.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Ethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Hexachlorobutadiene	03	SW8260D	<0.80 ug/L		0.80	1	04/08/24 15:26	04/08/24 15:26	CGN
Iodomethane	03	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:26	04/08/24 15:26	CGN
Isopropylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
m+p-Xylenes	03	SW8260D	<2.00 ug/L		2.00	1	04/08/24 15:26	04/08/24 15:26	CGN



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0561

#### Analytical Results

Sample I.D. 1601 Coopers Cove Rd	Laboratory Sample ID: 24D0561-03
Grab Date/Time: 04/02/2024 14:01	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	03	SW8260D	<4.00 ug/L		4.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Methyl-t-butyl ether (MTBE)	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Naphthalene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
n-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
n-Propylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
o-Xylene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
sec-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Styrene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
tert-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Tetrachloroethylene (PCE)	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Toluene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
trans-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
trans-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Trichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Trichlorofluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Vinyl acetate	03	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:26	04/08/24 15:26	CGN
Vinyl chloride	03	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:26	04/08/24 15:26	CGN
Xylenes, Total	03	SW8260D	<3.00 ug/L		3.00	1	04/08/24 15:26	04/08/24 15:26	CGN
Surr: 1,2-Dichloroethane-d4 (Surr)	03	SW8260D	95.4 %		70-120		04/08/24 15:26	04/08/24 15:26	CGN
Surr: 4-Bromofluorobenzene (Surr)	03	SW8260D	101 %		75-120		04/08/24 15:26	04/08/24 15:26	CGN
Surr: Dibromofluoromethane (Surr)	03	SW8260D	98.6 %		70-130		04/08/24 15:26	04/08/24 15:26	CGN
Surr: Toluene-d8 (Surr)	03	SW8260D	98.6 %		70-130		04/08/24 15:26	04/08/24 15:26	CGN



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

### Analytical Results

Sample I.D. 2234 Coopers Cove Rd Laboratory Sample ID: 24D0561-04  
 Grab Date/Time: 04/02/2024 14:25  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	04	SW8260D	<0.40 ug/L		0.40	1	04/08/24 15:49	04/08/24 15:49	CGN
1,1,1-Trichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,1,2,2-Tetrachloroethane	04	SW8260D	<0.40 ug/L		0.40	1	04/08/24 15:49	04/08/24 15:49	CGN
1,1,2-Trichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,1-Dichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,1-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,1-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,2,3-Trichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,2,3-Trichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,2,4-Trichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,2,4-Trimethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,2-Dibromo-3-chloropropane (DBCP)	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,2-Dibromoethane (EDB)	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,2-Dichlorobenzene	04	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:49	04/08/24 15:49	CGN
1,2-Dichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,2-Dichloropropane	04	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:49	04/08/24 15:49	CGN
1,3,5-Trimethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,3-Dichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,3-Dichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
1,4-Dichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
2,2-Dichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
2-Butanone (MEK)	04	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:49	04/08/24 15:49	CGN
2-Chlorotoluene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
2-Hexanone (MBK)	04	SW8260D	<5.00 ug/L		5.00	1	04/08/24 15:49	04/08/24 15:49	CGN
4-Chlorotoluene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

### Analytical Results

Sample I.D. 2234 Coopers Cove Rd Laboratory Sample ID: 24D0561-04  
 Grab Date/Time: 04/02/2024 14:25  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
4-Methyl-2-pentanone (MIBK)	04	SW8260D	<5.00 ug/L		5.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Acetone	04	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:49	04/08/24 15:49	CGN
Benzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Bromobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Bromochloromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Bromodichloromethane	04	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:49	04/08/24 15:49	CGN
Bromoform	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Bromomethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Carbon disulfide	04	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:49	04/08/24 15:49	CGN
Carbon tetrachloride	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Chlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Chloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Chloroform	04	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:49	04/08/24 15:49	CGN
Chloromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
cis-1,2-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
cis-1,3-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Dibromochloromethane	04	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:49	04/08/24 15:49	CGN
Dibromomethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Dichlorodifluoromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Di-isopropyl ether (DIPE)	04	SW8260D	<5.00 ug/L		5.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Ethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Hexachlorobutadiene	04	SW8260D	<0.80 ug/L		0.80	1	04/08/24 15:49	04/08/24 15:49	CGN
Iodomethane	04	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:49	04/08/24 15:49	CGN
Isopropylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
m+p-Xylenes	04	SW8260D	<2.00 ug/L		2.00	1	04/08/24 15:49	04/08/24 15:49	CGN



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

### Analytical Results

Sample I.D. 2234 Coopers Cove Rd Laboratory Sample ID: 24D0561-04  
 Grab Date/Time: 04/02/2024 14:25  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	04	SW8260D	<4.00 ug/L		4.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Methyl-t-butyl ether (MTBE)	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Naphthalene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
n-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
n-Propylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
o-Xylene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
sec-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Styrene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
tert-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Tetrachloroethylene (PCE)	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Toluene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
trans-1,2-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
trans-1,3-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Trichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Trichlorofluoromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Vinyl acetate	04	SW8260D	<10.0 ug/L		10.0	1	04/08/24 15:49	04/08/24 15:49	CGN
Vinyl chloride	04	SW8260D	<0.50 ug/L		0.50	1	04/08/24 15:49	04/08/24 15:49	CGN
Xylenes, Total	04	SW8260D	<3.00 ug/L		3.00	1	04/08/24 15:49	04/08/24 15:49	CGN
Surr: 1,2-Dichloroethane-d4 (Surr)	04	SW8260D	96.6 %		70-120		04/08/24 15:49	04/08/24 15:49	CGN
Surr: 4-Bromofluorobenzene (Surr)	04	SW8260D	100 %		75-120		04/08/24 15:49	04/08/24 15:49	CGN
Surr: Dibromofluoromethane (Surr)	04	SW8260D	95.3 %		70-130		04/08/24 15:49	04/08/24 15:49	CGN
Surr: Toluene-d8 (Surr)	04	SW8260D	99.3 %		70-130		04/08/24 15:49	04/08/24 15:49	CGN



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0561

**Analytical Results**

Sample I.D. 5290 Pitzer Rd	Laboratory Sample ID: 24D0561-05
Grab Date/Time: 04/02/2024 14:55	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	05	SW8260D	<0.40 ug/L		0.40	1	04/08/24 16:13	04/08/24 16:13	CGN
1,1,1-Trichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,1,2,2-Tetrachloroethane	05	SW8260D	<0.40 ug/L		0.40	1	04/08/24 16:13	04/08/24 16:13	CGN
1,1,2-Trichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,1-Dichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,1-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,1-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,2,3-Trichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,2,3-Trichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,2,4-Trichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,2,4-Trimethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,2-Dibromo-3-chloropropane (DBCP)	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,2-Dibromoethane (EDB)	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,2-Dichlorobenzene	05	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:13	04/08/24 16:13	CGN
1,2-Dichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,2-Dichloropropane	05	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:13	04/08/24 16:13	CGN
1,3,5-Trimethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,3-Dichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,3-Dichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
1,4-Dichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
2,2-Dichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
2-Butanone (MEK)	05	SW8260D	<10.0 ug/L		10.0	1	04/08/24 16:13	04/08/24 16:13	CGN
2-Chlorotoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
2-Hexanone (MBK)	05	SW8260D	<5.00 ug/L		5.00	1	04/08/24 16:13	04/08/24 16:13	CGN
4-Chlorotoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

### Analytical Results

Sample I.D. 5290 Pitzer Rd

Laboratory Sample ID: 24D0561-05

Grab Date/Time: 04/02/2024 14:55

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
4-Methyl-2-pentanone (MIBK)	05	SW8260D	<5.00 ug/L		5.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Acetone	05	SW8260D	<10.0 ug/L		10.0	1	04/08/24 16:13	04/08/24 16:13	CGN
Benzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Bromobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Bromochloromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Bromodichloromethane	05	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:13	04/08/24 16:13	CGN
Bromoform	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Bromomethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Carbon disulfide	05	SW8260D	<10.0 ug/L		10.0	1	04/08/24 16:13	04/08/24 16:13	CGN
Carbon tetrachloride	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Chlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Chloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Chloroform	05	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:13	04/08/24 16:13	CGN
Chloromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
cis-1,2-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
cis-1,3-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Dibromochloromethane	05	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:13	04/08/24 16:13	CGN
Dibromomethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Dichlorodifluoromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Di-isopropyl ether (DIPE)	05	SW8260D	<5.00 ug/L		5.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Ethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Hexachlorobutadiene	05	SW8260D	<0.80 ug/L		0.80	1	04/08/24 16:13	04/08/24 16:13	CGN
Iodomethane	05	SW8260D	<10.0 ug/L		10.0	1	04/08/24 16:13	04/08/24 16:13	CGN
Isopropylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
m+p-Xylenes	05	SW8260D	<2.00 ug/L		2.00	1	04/08/24 16:13	04/08/24 16:13	CGN





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0561

**Analytical Results**

Sample I.D. 5290 Pitzer Rd	Laboratory Sample ID: 24D0561-05
Grab Date/Time: 04/02/2024 14:55	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	05	SW8260D	<4.00 ug/L		4.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Methyl-t-butyl ether (MTBE)	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Naphthalene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
n-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
n-Propylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
o-Xylene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
sec-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Styrene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
tert-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Tetrachloroethylene (PCE)	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Toluene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
trans-1,2-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
trans-1,3-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Trichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Trichlorofluoromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Vinyl acetate	05	SW8260D	<10.0 ug/L		10.0	1	04/08/24 16:13	04/08/24 16:13	CGN
Vinyl chloride	05	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:13	04/08/24 16:13	CGN
Xylenes, Total	05	SW8260D	<3.00 ug/L		3.00	1	04/08/24 16:13	04/08/24 16:13	CGN
Surr: 1,2-Dichloroethane-d4 (Surr)	05	SW8260D	102 %		70-120		04/08/24 16:13	04/08/24 16:13	CGN
Surr: 4-Bromofluorobenzene (Surr)	05	SW8260D	100 %		75-120		04/08/24 16:13	04/08/24 16:13	CGN
Surr: Dibromofluoromethane (Surr)	05	SW8260D	99.1 %		70-130		04/08/24 16:13	04/08/24 16:13	CGN
Surr: Toluene-d8 (Surr)	05	SW8260D	97.6 %		70-130		04/08/24 16:13	04/08/24 16:13	CGN



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0561

**Analytical Results**

Sample I.D. 5281 Pitzer Rd	Laboratory Sample ID: 24D0561-06
Grab Date/Time: 04/02/2024 15:30	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	06	SW8260D	<0.40 ug/L		0.40	1	04/08/24 16:36	04/08/24 16:36	CGN
1,1,1-Trichloroethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,1,2,2-Tetrachloroethane	06	SW8260D	<0.40 ug/L		0.40	1	04/08/24 16:36	04/08/24 16:36	CGN
1,1,2-Trichloroethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,1-Dichloroethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,1-Dichloroethylene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,1-Dichloropropene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,2,3-Trichlorobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,2,3-Trichloropropane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,2,4-Trichlorobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,2,4-Trimethylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,2-Dibromo-3-chloropropane (DBCP)	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,2-Dibromoethane (EDB)	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,2-Dichlorobenzene	06	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:36	04/08/24 16:36	CGN
1,2-Dichloroethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,2-Dichloropropane	06	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:36	04/08/24 16:36	CGN
1,3,5-Trimethylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,3-Dichlorobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,3-Dichloropropane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
1,4-Dichlorobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
2,2-Dichloropropane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
2-Butanone (MEK)	06	SW8260D	<10.0 ug/L		10.0	1	04/08/24 16:36	04/08/24 16:36	CGN
2-Chlorotoluene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
2-Hexanone (MBK)	06	SW8260D	<5.00 ug/L		5.00	1	04/08/24 16:36	04/08/24 16:36	CGN
4-Chlorotoluene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

### Analytical Results

Sample I.D. 5281 Pitzer Rd Laboratory Sample ID: 24D0561-06

Grab Date/Time: 04/02/2024 15:30

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
4-Methyl-2-pentanone (MIBK)	06	SW8260D	<5.00 ug/L		5.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Acetone	06	SW8260D	<10.0 ug/L		10.0	1	04/08/24 16:36	04/08/24 16:36	CGN
Benzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Bromobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Bromochloromethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Bromodichloromethane	06	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:36	04/08/24 16:36	CGN
Bromoform	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Bromomethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Carbon disulfide	06	SW8260D	<10.0 ug/L		10.0	1	04/08/24 16:36	04/08/24 16:36	CGN
Carbon tetrachloride	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Chlorobenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Chloroethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Chloroform	06	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:36	04/08/24 16:36	CGN
Chloromethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
cis-1,2-Dichloroethylene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
cis-1,3-Dichloropropene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Dibromochloromethane	06	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:36	04/08/24 16:36	CGN
Dibromomethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Dichlorodifluoromethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Di-isopropyl ether (DIPE)	06	SW8260D	<5.00 ug/L		5.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Ethylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Hexachlorobutadiene	06	SW8260D	<0.80 ug/L		0.80	1	04/08/24 16:36	04/08/24 16:36	CGN
Iodomethane	06	SW8260D	<10.0 ug/L		10.0	1	04/08/24 16:36	04/08/24 16:36	CGN
Isopropylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
m+p-Xylenes	06	SW8260D	<2.00 ug/L		2.00	1	04/08/24 16:36	04/08/24 16:36	CGN



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## Certificate of Analysis

### Final Report

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 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0561

### Analytical Results

Sample I.D. 5281 Pitzer Rd

Laboratory Sample ID: 24D0561-06

Grab Date/Time: 04/02/2024 15:30

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	06	SW8260D	<4.00 ug/L		4.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Methyl-t-butyl ether (MTBE)	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Naphthalene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
n-Butylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
n-Propylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
o-Xylene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
sec-Butylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Styrene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
tert-Butylbenzene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Tetrachloroethylene (PCE)	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Toluene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
trans-1,2-Dichloroethylene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
trans-1,3-Dichloropropene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Trichloroethylene	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Trichlorofluoromethane	06	SW8260D	<1.00 ug/L		1.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Vinyl acetate	06	SW8260D	<10.0 ug/L		10.0	1	04/08/24 16:36	04/08/24 16:36	CGN
Vinyl chloride	06	SW8260D	<0.50 ug/L		0.50	1	04/08/24 16:36	04/08/24 16:36	CGN
Xylenes, Total	06	SW8260D	<3.00 ug/L		3.00	1	04/08/24 16:36	04/08/24 16:36	CGN
Surr: 1,2-Dichloroethane-d4 (Surr)	06	SW8260D	93.6 %		70-120		04/08/24 16:36	04/08/24 16:36	CGN
Surr: 4-Bromofluorobenzene (Surr)	06	SW8260D	103 %		75-120		04/08/24 16:36	04/08/24 16:36	CGN
Surr: Dibromofluoromethane (Surr)	06	SW8260D	102 %		70-130		04/08/24 16:36	04/08/24 16:36	CGN
Surr: Toluene-d8 (Surr)	06	SW8260D	98.8 %		70-130		04/08/24 16:36	04/08/24 16:36	CGN



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## Certificate of Analysis

### Final Report

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 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

### Analytical Summary

**Administrative**

24D0561-01

**Preparation Method:**

EA

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>		<b>Preparation Method: SW5030B-MS</b>			
24D0224-01	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0224-02	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0224-03	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0224-04	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0224-05	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0224-06	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0561-01	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0561-02	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0561-03	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0561-04	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0561-05	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
24D0561-06	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Micro-extractables by GC/ECD</b>		<b>Preparation Method: SW8011</b>			
24D0224-03	59.3 mL / 2.00 mL	SW8011	BHD0228	SHD0284	AD40200
24D0224-04	60.1 mL / 2.00 mL	SW8011	BHD0228	SHD0284	AD40200
24D0224-05	59.3 mL / 2.00 mL	SW8011	BHD0228	SHD0284	AD40200
24D0224-06	59.6 mL / 2.00 mL	SW8011	BHD0228	SHD0284	AD40200
<b>Micro-extractables by GC/ECD</b>		<b>Preparation Method: SW8011</b>			
24D0224-01	59.6 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
24D0224-02	60.0 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>			<b>Preparation Method:</b>	<b>SW5030B-MS</b>	
BHD0306-BLK1	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
BHD0306-BS1	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
BHD0306-MS1	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197
BHD0306-MSD1	5.00 mL / 5.00 mL	SW8260D	BHD0306	SHD0301	AA40197

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Micro-extractables by GC/ECD</b>			<b>Preparation Method:</b>	<b>SW8011</b>	
BHD0228-BLK1	60.0 mL / 2.00 mL	SW8011	BHD0228	SHD0284	AD40200
BHD0228-BS1	60.0 mL / 2.00 mL	SW8011	BHD0228	SHD0284	AD40200
BHD0228-MS1	59.7 mL / 2.00 mL	SW8011	BHD0228	SHD0284	AD40200
BHD0228-MSD1	59.4 mL / 2.00 mL	SW8011	BHD0228	SHD0284	AD40200
BHD0230-BLK1	60.0 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
BHD0230-BS1	60.0 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
BHD0230-MS1	59.8 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200
BHD0230-MSD1	59.8 mL / 2.00 mL	SW8011	BHD0230	SHD0284	AD40200

## Certificate of Analysis

### Final Report

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Submitted To:	Jessica Brock	Project Number:	4260177-001
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### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0306 - SW5030B-MS

#### Blank (BHD0306-BLK1)

Prepared &amp; Analyzed: 04/08/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0306 - SW5030B-MS

#### Blank (BHD0306-BLK1)

Prepared &amp; Analyzed: 04/08/2024

Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							
Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	0.83 ug/L	0.50	ug/L							B
Chloromethane	<1.00 ug/L	1.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							
Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							



## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0306 - SW5030B-MS

##### Blank (BHD0306-BLK1)

Prepared &amp; Analyzed: 04/08/2024

trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							
Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
<hr style="border-top: 1px dashed black;"/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	47.6		ug/L	50.0		95.2	70-120			
Surr: 4-Bromofluorobenzene (Surr)	50.0		ug/L	50.0		100	75-120			
Surr: Dibromofluoromethane (Surr)	47.3		ug/L	50.0		94.7	70-130			
Surr: Toluene-d8 (Surr)	49.0		ug/L	50.0		98.1	70-130			

##### LCS (BHD0306-BS1)

Prepared &amp; Analyzed: 04/08/2024

1,1,1,2-Tetrachloroethane	51.8 ug/L	0.4	ug/L	50.0	ug/L	104	80-130			
1,1,1-Trichloroethane	51.1 ug/L	1	ug/L	50.0	ug/L	102	65-130			
1,1,2,2-Tetrachloroethane	53.7 ug/L	0.4	ug/L	50.0	ug/L	107	65-130			
1,1,2-Trichloroethane	49.6 ug/L	1	ug/L	50.0	ug/L	99.1	75-125			
1,1-Dichloroethane	48.8 ug/L	1	ug/L	50.0	ug/L	97.6	70-135			
1,1-Dichloroethylene	44.9 ug/L	1	ug/L	50.0	ug/L	89.9	70-130			
1,1-Dichloropropene	49.8 ug/L	1	ug/L	50.0	ug/L	99.5	75-135			
1,2,3-Trichlorobenzene	52.5 ug/L	1	ug/L	50.0	ug/L	105	55-140			
1,2,3-Trichloropropane	54.5 ug/L	1	ug/L	50.0	ug/L	109	75-125			
1,2,4-Trichlorobenzene	50.3 ug/L	1	ug/L	50.0	ug/L	101	65-135			
1,2,4-Trimethylbenzene	59.9 ug/L	1	ug/L	50.0	ug/L	120	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	56.2 ug/L	1	ug/L	50.0	ug/L	112	50-130			
1,2-Dibromoethane (EDB)	52.3 ug/L	1	ug/L	50.0	ug/L	105	80-120			
1,2-Dichlorobenzene	54.0 ug/L	0.5	ug/L	50.0	ug/L	108	70-120			
1,2-Dichloroethane	51.0 ug/L	1	ug/L	50.0	ug/L	102	70-130			
1,2-Dichloropropane	51.4 ug/L	0.5	ug/L	50.0	ug/L	103	75-125			
1,3,5-Trimethylbenzene	57.6 ug/L	1	ug/L	50.0	ug/L	115	75-125			
1,3-Dichlorobenzene	53.0 ug/L	1	ug/L	50.0	ug/L	106	75-125			
1,3-Dichloropropane	50.1 ug/L	1	ug/L	50.0	ug/L	100	75-125			



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0306 - SW5030B-MS

#### LCS (BHD0306-BS1)

Prepared & Analyzed: 04/08/2024

1,4-Dichlorobenzene	53.1 ug/L	1	ug/L	50.0	ug/L	106	75-125			
2,2-Dichloropropane	48.0 ug/L	1	ug/L	50.0	ug/L	96.0	70-135			
2-Butanone (MEK)	41.3 ug/L	10	ug/L	50.0	ug/L	82.7	30-150			
2-Chlorotoluene	51.4 ug/L	1	ug/L	50.0	ug/L	103	75-125			
2-Hexanone (MBK)	55.0 ug/L	5	ug/L	50.0	ug/L	110	55-130			
4-Chlorotoluene	50.3 ug/L	1	ug/L	50.0	ug/L	101	75-130			
4-Isopropyltoluene	59.8 ug/L	1	ug/L	50.0	ug/L	120	75-130			
4-Methyl-2-pentanone (MIBK)	53.3 ug/L	5	ug/L	50.0	ug/L	107	60-135			
Acetone	39.4 ug/L	10	ug/L	50.0	ug/L	78.9	40-140			
Benzene	50.9 ug/L	1	ug/L	50.0	ug/L	102	80-120			
Bromobenzene	51.8 ug/L	1	ug/L	50.0	ug/L	104	75-125			
Bromochloromethane	44.9 ug/L	1	ug/L	50.0	ug/L	89.7	65-130			
Bromodichloromethane	50.1 ug/L	0.5	ug/L	50.0	ug/L	100	75-120			
Bromoform	48.0 ug/L	1	ug/L	50.0	ug/L	95.9	70-130			
Bromomethane	46.2 ug/L	1	ug/L	50.0	ug/L	92.4	30-145			
Carbon disulfide	51.7 ug/L	10	ug/L	50.0	ug/L	103	35-160			
Carbon tetrachloride	48.9 ug/L	1	ug/L	50.0	ug/L	97.8	65-140			
Chlorobenzene	53.2 ug/L	1	ug/L	50.0	ug/L	106	80-120			
Chloroethane	52.1 ug/L	1	ug/L	50.0	ug/L	104	60-135			
Chloroform	48.8 ug/L	0.5	ug/L	50.0	ug/L	97.6	65-135			
Chloromethane	68.6 ug/L	1	ug/L	50.0	ug/L	137	40-125			L
cis-1,2-Dichloroethylene	46.9 ug/L	1	ug/L	50.0	ug/L	93.7	70-125			
cis-1,3-Dichloropropene	48.8 ug/L	1	ug/L	50.0	ug/L	97.6	70-130			
Dibromochloromethane	46.5 ug/L	0.5	ug/L	50.0	ug/L	93.0	60-135			
Dibromomethane	52.6 ug/L	1	ug/L	50.0	ug/L	105	75-125			
Dichlorodifluoromethane	85.0 ug/L	1	ug/L	50.0	ug/L	170	30-155			L
Ethylbenzene	55.3 ug/L	1	ug/L	50.0	ug/L	111	75-125			
Hexachlorobutadiene	51.6 ug/L	0.8	ug/L	50.0	ug/L	103	50-140			
Isopropylbenzene	51.7 ug/L	1	ug/L	50.0	ug/L	103	75-125			
m+p-Xylenes	107 ug/L	2	ug/L	100	ug/L	107	75-130			
Methylene chloride	45.3 ug/L	4	ug/L	50.0	ug/L	90.6	55-140			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0306 - SW5030B-MS

##### LCS (BHD0306-BS1)

Prepared &amp; Analyzed: 04/08/2024

Methyl-t-butyl ether (MTBE)	51.8 ug/L	1	ug/L	50.0	ug/L	104	65-125			
Naphthalene	57.4 ug/L	1	ug/L	50.0	ug/L	115	55-140			
n-Butylbenzene	62.5 ug/L	1	ug/L	50.0	ug/L	125	70-135			
n-Propylbenzene	51.4 ug/L	1	ug/L	50.0	ug/L	103	70-130			
o-Xylene	51.8 ug/L	1	ug/L	50.0	ug/L	104	80-120			
sec-Butylbenzene	60.2 ug/L	1	ug/L	50.0	ug/L	120	70-125			
Styrene	52.2 ug/L	1	ug/L	50.0	ug/L	104	65-135			
tert-Butylbenzene	54.9 ug/L	1	ug/L	50.0	ug/L	110	70-130			
Tetrachloroethylene (PCE)	50.5 ug/L	1	ug/L	50.0	ug/L	101	45-150			
Toluene	50.4 ug/L	1	ug/L	50.0	ug/L	101	75-120			
trans-1,2-Dichloroethylene	46.4 ug/L	1	ug/L	50.0	ug/L	92.7	60-140			
trans-1,3-Dichloropropene	51.9 ug/L	1	ug/L	50.0	ug/L	104	55-140			
Trichloroethylene	50.1 ug/L	1	ug/L	50.0	ug/L	100	70-125			
Trichlorofluoromethane	56.7 ug/L	1	ug/L	50.0	ug/L	113	60-145			
Vinyl chloride	48.1 ug/L	0.5	ug/L	50.0	ug/L	96.3	50-145			
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Surr: 1,2-Dichloroethane-d4 (Surr)	47.1		ug/L	50.0	ug/L	94.1	70-120			
Surr: 4-Bromofluorobenzene (Surr)	49.8		ug/L	50.0	ug/L	99.7	75-120			
Surr: Dibromofluoromethane (Surr)	44.8		ug/L	50.0	ug/L	89.5	70-130			
Surr: Toluene-d8 (Surr)	48.8		ug/L	50.0	ug/L	97.6	70-130			

##### Matrix Spike (BHD0306-MS1)

Source: 24D0224-01

Prepared &amp; Analyzed: 04/08/2024

1,1,1,2-Tetrachloroethane	52.8 ug/L	0.4	ug/L	50.0	<0.4 ug/L	106	80-130			
1,1,1-Trichloroethane	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	65-130			
1,1,2,2-Tetrachloroethane	52.7 ug/L	0.4	ug/L	50.0	<0.4 ug/L	105	65-130			
1,1,2-Trichloroethane	50.2 ug/L	1	ug/L	50.0	<1 ug/L	100	75-125			
1,1-Dichloroethane	48.6 ug/L	1	ug/L	50.0	<1 ug/L	97.2	70-135			
1,1-Dichloroethylene	46.6 ug/L	1	ug/L	50.0	<1 ug/L	93.3	50-145			
1,1-Dichloropropene	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	75-135			
1,2,3-Trichlorobenzene	51.8 ug/L	1	ug/L	50.0	<1 ug/L	104	55-140			
1,2,3-Trichloropropane	53.8 ug/L	1	ug/L	50.0	<1 ug/L	108	75-125			
1,2,4-Trichlorobenzene	48.8 ug/L	1	ug/L	50.0	<1 ug/L	97.5	65-135			
1,2,4-Trimethylbenzene	58.8 ug/L	1	ug/L	50.0	<1 ug/L	118	75-130			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0306 - SW5030B-MS

##### Matrix Spike (BHD0306-MS1)

Source: 24D0224-01

Prepared &amp; Analyzed: 04/08/2024

1,2-Dibromo-3-chloropropane (DBCP)	51.3 ug/L	1	ug/L	50.0	<1 ug/L	103	50-130			
1,2-Dibromoethane (EDB)	52.7 ug/L	1	ug/L	50.0	<1 ug/L	105	80-120			
1,2-Dichlorobenzene	52.3 ug/L	0.5	ug/L	50.0	<0.5 ug/L	105	70-120			
1,2-Dichloroethane	51.2 ug/L	1	ug/L	50.0	<1 ug/L	102	70-130			
1,2-Dichloropropane	51.4 ug/L	0.5	ug/L	50.0	<0.5 ug/L	103	75-125			
1,3,5-Trimethylbenzene	56.5 ug/L	1	ug/L	50.0	<1 ug/L	113	75-124			
1,3-Dichlorobenzene	51.6 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125			
1,3-Dichloropropane	50.6 ug/L	1	ug/L	50.0	<1 ug/L	101	75-125			
1,4-Dichlorobenzene	51.4 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125			
2,2-Dichloropropane	48.2 ug/L	1	ug/L	50.0	<1 ug/L	96.4	70-135			
2-Butanone (MEK)	39.3 ug/L	10	ug/L	50.0	<10 ug/L	78.5	30-150			
2-Chlorotoluene	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	75-125			
2-Hexanone (MBK)	55.6 ug/L	5	ug/L	50.0	<5 ug/L	111	55-130			
4-Chlorotoluene	50.2 ug/L	1	ug/L	50.0	<1 ug/L	100	75-130			
4-Isopropyltoluene	59.1 ug/L	1	ug/L	50.0	<1 ug/L	118	75-130			
4-Methyl-2-pentanone (MIBK)	55.6 ug/L	5	ug/L	50.0	<5 ug/L	111	60-135			
Acetone	43.0 ug/L	10	ug/L	50.0	<10 ug/L	86.0	40-140			
Benzene	50.8 ug/L	1	ug/L	50.0	<1 ug/L	102	80-120			
Bromobenzene	51.1 ug/L	1	ug/L	50.0	<1 ug/L	102	75-125			
Bromochloromethane	43.8 ug/L	1	ug/L	50.0	<1 ug/L	87.7	65-130			
Bromodichloromethane	49.4 ug/L	0.5	ug/L	50.0	<0.5 ug/L	98.8	75-136			
Bromoform	48.2 ug/L	1	ug/L	50.0	<1 ug/L	96.3	70-130			
Bromomethane	46.0 ug/L	1	ug/L	50.0	<1 ug/L	91.9	30-145			
Carbon disulfide	50.6 ug/L	10	ug/L	50.0	<10 ug/L	100	35-160			
Carbon tetrachloride	49.9 ug/L	1	ug/L	50.0	<1 ug/L	99.8	65-140			
Chlorobenzene	53.3 ug/L	1	ug/L	50.0	<1 ug/L	107	80-120			
Chloroethane	51.6 ug/L	1	ug/L	50.0	<1 ug/L	103	60-135			
Chloroform	48.9 ug/L	0.5	ug/L	50.0	<0.5 ug/L	97.8	65-135			
Chloromethane	66.5 ug/L	1	ug/L	50.0	<1 ug/L	133	40-125			M
cis-1,2-Dichloroethylene	46.0 ug/L	1	ug/L	50.0	<1 ug/L	91.9	70-125			
cis-1,3-Dichloropropene	48.5 ug/L	1	ug/L	50.0	<1 ug/L	96.9	47-136			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0306 - SW5030B-MS

##### Matrix Spike (BHD0306-MS1)

Source: 24D0224-01

Prepared &amp; Analyzed: 04/08/2024

Dibromochloromethane	47.2 ug/L	0.5	ug/L	50.0	<0.5 ug/L	94.3	60-135		
Dibromomethane	53.1 ug/L	1	ug/L	50.0	<1 ug/L	106	75-125		
Dichlorodifluoromethane	85.4 ug/L	1	ug/L	50.0	<1 ug/L	171	30-155		M
Ethylbenzene	55.6 ug/L	1	ug/L	50.0	<1 ug/L	111	75-125		
Hexachlorobutadiene	50.4 ug/L	0.8	ug/L	50.0	<0.8 ug/L	101	50-140		
Isopropylbenzene	51.0 ug/L	1	ug/L	50.0	<1 ug/L	102	75-125		
m+p-Xylenes	107 ug/L	2	ug/L	100	<2 ug/L	107	75-130		
Methylene chloride	45.3 ug/L	4	ug/L	50.0	<4 ug/L	89.2	55-140		
Methyl-t-butyl ether (MTBE)	52.1 ug/L	1	ug/L	50.0	<1 ug/L	104	65-125		
Naphthalene	56.9 ug/L	1	ug/L	50.0	<1 ug/L	114	55-140		
n-Butylbenzene	61.2 ug/L	1	ug/L	50.0	<1 ug/L	122	70-135		
n-Propylbenzene	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	70-130		
o-Xylene	52.7 ug/L	1	ug/L	50.0	<1 ug/L	105	80-120		
sec-Butylbenzene	58.1 ug/L	1	ug/L	50.0	<1 ug/L	116	70-125		
Styrene	52.7 ug/L	1	ug/L	50.0	<1 ug/L	105	65-135		
tert-Butylbenzene	53.5 ug/L	1	ug/L	50.0	<1 ug/L	107	70-130		
Tetrachloroethylene (PCE)	50.8 ug/L	1	ug/L	50.0	<1 ug/L	102	51-231		
Toluene	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	75-120		
trans-1,2-Dichloroethylene	47.6 ug/L	1	ug/L	50.0	<1 ug/L	95.1	60-140		
trans-1,3-Dichloropropene	52.7 ug/L	1	ug/L	50.0	<1 ug/L	105	55-140		
Trichloroethylene	50.1 ug/L	1	ug/L	50.0	<1 ug/L	100	70-125		
Trichlorofluoromethane	53.7 ug/L	1	ug/L	50.0	<1 ug/L	107	60-145		
Vinyl chloride	47.6 ug/L	0.5	ug/L	50.0	<0.5 ug/L	95.2	50-145		
<hr style="border-top: 1px dashed black;"/>									
Surr: 1,2-Dichloroethane-d4 (Surr)	47.5		ug/L	50.0	ug/L	95.0	70-120		
Surr: 4-Bromofluorobenzene (Surr)	51.8		ug/L	50.0	ug/L	104	75-120		
Surr: Dibromofluoromethane (Surr)	46.2		ug/L	50.0	ug/L	92.4	70-130		
Surr: Toluene-d8 (Surr)	49.8		ug/L	50.0	ug/L	99.5	70-130		

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0306 - SW5030B-MS

##### Matrix Spike Dup (BHD0306-MSD1)

Source: 24D0224-01

Prepared &amp; Analyzed: 04/08/2024

1,1,1,2-Tetrachloroethane	49.3 ug/L	0.4	ug/L	50.0	<0.4 ug/L	98.6	80-130	6.95	30	
1,1,1-Trichloroethane	48.5 ug/L	1	ug/L	50.0	<1 ug/L	96.9	65-130	3.89	30	
1,1,2,2-Tetrachloroethane	49.4 ug/L	0.4	ug/L	50.0	<0.4 ug/L	98.8	65-130	6.52	30	
1,1,2-Trichloroethane	48.0 ug/L	1	ug/L	50.0	<1 ug/L	96.1	75-125	4.32	30	
1,1-Dichloroethane	46.0 ug/L	1	ug/L	50.0	<1 ug/L	92.0	70-135	5.50	30	
1,1-Dichloroethylene	41.9 ug/L	1	ug/L	50.0	<1 ug/L	83.7	50-145	10.8	30	
1,1-Dichloropropene	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.9	75-135	6.01	30	
1,2,3-Trichlorobenzene	50.6 ug/L	1	ug/L	50.0	<1 ug/L	101	55-140	2.44	30	
1,2,3-Trichloropropane	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	75-125	6.52	30	
1,2,4-Trichlorobenzene	47.6 ug/L	1	ug/L	50.0	<1 ug/L	95.3	65-135	2.32	30	
1,2,4-Trimethylbenzene	57.1 ug/L	1	ug/L	50.0	<1 ug/L	114	75-130	3.04	30	
1,2-Dibromo-3-chloropropane (DBCP)	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.5	50-130	4.06	30	
1,2-Dibromoethane (EDB)	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.6	80-120	6.61	30	
1,2-Dichlorobenzene	51.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	102	70-120	2.50	30	
1,2-Dichloroethane	48.8 ug/L	1	ug/L	50.0	<1 ug/L	97.6	70-130	4.94	30	
1,2-Dichloropropane	50.6 ug/L	0.5	ug/L	50.0	<0.5 ug/L	101	75-125	1.61	30	
1,3,5-Trimethylbenzene	55.1 ug/L	1	ug/L	50.0	<1 ug/L	110	75-124	2.54	30	
1,3-Dichlorobenzene	50.5 ug/L	1	ug/L	50.0	<1 ug/L	101	75-125	2.02	30	
1,3-Dichloropropane	48.9 ug/L	1	ug/L	50.0	<1 ug/L	97.8	75-125	3.40	30	
1,4-Dichlorobenzene	49.8 ug/L	1	ug/L	50.0	<1 ug/L	99.6	75-125	3.12	30	
2,2-Dichloropropane	45.5 ug/L	1	ug/L	50.0	<1 ug/L	91.0	70-135	5.85	30	
2-Butanone (MEK)	38.4 ug/L	10	ug/L	50.0	<10 ug/L	76.7	30-150	2.32	30	
2-Chlorotoluene	49.0 ug/L	1	ug/L	50.0	<1 ug/L	97.9	75-125	3.00	30	
2-Hexanone (MBK)	51.9 ug/L	5	ug/L	50.0	<5 ug/L	104	55-130	6.81	30	
4-Chlorotoluene	48.9 ug/L	1	ug/L	50.0	<1 ug/L	97.9	75-130	2.52	30	
4-Isopropyltoluene	57.7 ug/L	1	ug/L	50.0	<1 ug/L	115	75-130	2.33	30	
4-Methyl-2-pentanone (MIBK)	51.8 ug/L	5	ug/L	50.0	<5 ug/L	104	60-135	7.17	30	
Acetone	36.2 ug/L	10	ug/L	50.0	<10 ug/L	72.4	40-140	17.1	30	
Benzene	49.5 ug/L	1	ug/L	50.0	<1 ug/L	98.9	80-120	2.61	30	
Bromobenzene	47.9 ug/L	1	ug/L	50.0	<1 ug/L	95.7	75-125	6.61	30	
Bromochloromethane	42.0 ug/L	1	ug/L	50.0	<1 ug/L	84.0	65-130	4.26	30	



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Jessica Brock  
 Client Site I.D.: Coopers Cove Rd Hardy, VA

Date Issued: April 10, 2024 15:41  
 Project Number: 4260177-001  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0306 - SW5030B-MS

#### Matrix Spike Dup (BHD0306-MSD1)

Source: 24D0224-01

Prepared & Analyzed: 04/08/2024

Bromodichloromethane	49.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	98.0	75-136	0.854	30	
Bromoform	44.5 ug/L	1	ug/L	50.0	<1 ug/L	88.9	70-130	7.99	30	
Bromomethane	45.2 ug/L	1	ug/L	50.0	<1 ug/L	90.3	30-145	1.78	30	
Carbon disulfide	46.5 ug/L	10	ug/L	50.0	<10 ug/L	92.0	35-160	8.48	30	
Carbon tetrachloride	48.1 ug/L	1	ug/L	50.0	<1 ug/L	96.1	65-140	3.74	30	
Chlorobenzene	50.1 ug/L	1	ug/L	50.0	<1 ug/L	100	80-120	6.13	30	
Chloroethane	50.1 ug/L	1	ug/L	50.0	<1 ug/L	100	60-135	2.99	30	
Chloroform	47.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	94.0	65-135	3.92	30	
Chloromethane	63.7 ug/L	1	ug/L	50.0	<1 ug/L	127	40-125	4.29	30	M
cis-1,2-Dichloroethylene	44.5 ug/L	1	ug/L	50.0	<1 ug/L	89.0	70-125	3.23	30	
cis-1,3-Dichloropropene	46.8 ug/L	1	ug/L	50.0	<1 ug/L	93.7	47-136	3.40	30	
Dibromochloromethane	45.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	90.0	60-135	4.71	30	
Dibromomethane	51.5 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125	2.96	30	
Dichlorodifluoromethane	80.1 ug/L	1	ug/L	50.0	<1 ug/L	160	30-155	6.42	30	M
Ethylbenzene	52.5 ug/L	1	ug/L	50.0	<1 ug/L	105	75-125	5.68	30	
Hexachlorobutadiene	49.8 ug/L	0.8	ug/L	50.0	<0.8 ug/L	99.7	50-140	1.12	30	
Isopropylbenzene	47.7 ug/L	1	ug/L	50.0	<1 ug/L	95.5	75-125	6.66	30	
m+p-Xylenes	101 ug/L	2	ug/L	100	<2 ug/L	101	75-130	6.09	30	
Methylene chloride	42.6 ug/L	4	ug/L	50.0	<4 ug/L	83.9	55-140	6.08	30	
Methyl-t-butyl ether (MTBE)	50.2 ug/L	1	ug/L	50.0	<1 ug/L	100	65-125	3.64	30	
Naphthalene	55.0 ug/L	1	ug/L	50.0	<1 ug/L	110	55-140	3.41	30	
n-Butylbenzene	59.3 ug/L	1	ug/L	50.0	<1 ug/L	119	70-135	3.17	30	
n-Propylbenzene	50.2 ug/L	1	ug/L	50.0	<1 ug/L	100	70-130	0.358	30	
o-Xylene	48.7 ug/L	1	ug/L	50.0	<1 ug/L	97.4	80-120	7.81	30	
sec-Butylbenzene	56.6 ug/L	1	ug/L	50.0	<1 ug/L	113	70-125	2.49	30	
Styrene	49.0 ug/L	1	ug/L	50.0	<1 ug/L	98.0	65-135	7.18	30	
tert-Butylbenzene	51.8 ug/L	1	ug/L	50.0	<1 ug/L	104	70-130	3.19	30	
Tetrachloroethylene (PCE)	47.5 ug/L	1	ug/L	50.0	<1 ug/L	95.0	51-231	6.79	30	
Toluene	48.2 ug/L	1	ug/L	50.0	<1 ug/L	96.3	75-120	4.59	30	
trans-1,2-Dichloroethylene	43.0 ug/L	1	ug/L	50.0	<1 ug/L	86.1	60-140	9.98	30	
trans-1,3-Dichloropropene	50.2 ug/L	1	ug/L	50.0	<1 ug/L	100	55-140	4.86	30	



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0306 - SW5030B-MS

Matrix Spike Dup (BHD0306-MSD1)	Source: 24D0224-01			Prepared & Analyzed: 04/08/2024						
Trichloroethylene	48.5 ug/L	1	ug/L	50.0	<1 ug/L	97.0	70-125	3.33	30	
Trichlorofluoromethane	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	60-145	6.30	30	
Vinyl chloride	45.3 ug/L	0.5	ug/L	50.0	<0.5 ug/L	90.6	50-145	5.02	30	
-----										
Surr: 1,2-Dichloroethane-d4 (Surr)	46.0		ug/L	50.0	ug/L	91.9	70-120			
Surr: 4-Bromofluorobenzene (Surr)	50.2		ug/L	50.0	ug/L	100	75-120			
Surr: Dibromofluoromethane (Surr)	46.5		ug/L	50.0	ug/L	93.0	70-130			
Surr: Toluene-d8 (Surr)	50.7		ug/L	50.0	ug/L	101	70-130			



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### Certified Analyses included in this Report

Analyte	Certifications
<b>SW8011 in Non-Potable Water</b>	
1,2-Dibromoethane (EDB)	VELAP,NCDEQ
1,2,3-Trichloropropane	VELAP,NCDEQ
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ
<b>SW8260D in Non-Potable Water</b>	
1,1,1,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,1-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromoethane (EDB)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,3,5-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,4-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
2,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
2-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
2-Hexanone (MBK)	VELAP,NCDEQ,PADEP,WVDEP
4-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Isopropyltoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Methyl-2-pentanone (MIBK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Bromobenzene	VELAP,NCDEQ,PADEP,WVDEP
Bromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromodichloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromoform	VELAP,NCDEQ,PADEP,WVDEP

## Certificate of Analysis

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### Certified Analyses included in this Report

Analyte	Certifications
Bromomethane	VELAP,NCDEQ,PADEP,WVDEP
Carbon disulfide	VELAP,NCDEQ,PADEP,WVDEP
Carbon tetrachloride	VELAP,NCDEQ,PADEP,WVDEP
Chlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
Chloroethane	VELAP,NCDEQ,PADEP,WVDEP
Chloroform	VELAP,NCDEQ,PADEP,WVDEP
Chloromethane	VELAP,NCDEQ,PADEP,WVDEP
cis-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
cis-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Dibromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Dibromomethane	VELAP,NCDEQ,PADEP,WVDEP
Dichlorodifluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Di-isopropyl ether (DIPE)	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Hexachlorobutadiene	VELAP,NCDEQ,PADEP,WVDEP
Iodomethane	VELAP,NCDEQ,PADEP,WVDEP
Isopropylbenzene	VELAP,NCDEQ,PADEP,WVDEP
m+p-Xylenes	VELAP,NCDEQ,PADEP,WVDEP
m+p-Xylenes	VELAP,NCDEQ,PADEP,WVDEP
Methylene chloride	VELAP,NCDEQ,PADEP,WVDEP
Methyl-t-butyl ether (MTBE)	VELAP,NCDEQ,PADEP,WVDEP
Methyl-t-butyl ether (MTBE)	VELAP,NCDEQ,PADEP,WVDEP
Naphthalene	VELAP,NCDEQ,PADEP,WVDEP
n-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
n-Propylbenzene	VELAP,NCDEQ,PADEP,WVDEP
o-Xylene	VELAP,NCDEQ,PADEP,WVDEP
o-Xylene	VELAP,NCDEQ,PADEP,WVDEP
sec-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Styrene	VELAP,NCDEQ,PADEP,WVDEP
tert-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Tetrachloroethylene (PCE)	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Trichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
Trichlorofluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Vinyl acetate	VELAP,NCDEQ,PADEP,WVDEP



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Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### Certified Analyses included in this Report

Analyte	Certifications
Vinyl chloride	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP

Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2024
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
SCDHEC	South Carolina Dept of Health and Environmental	93016	06/14/2024
TXCEQ	Texas Comm on Environmental Quality #T104704	T104704576	05/31/2024
VELAP	NELAP-Virginia Certificate #12806	460021	06/14/2024
WVDEP	West Virginia DEP	350	11/30/2024



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### Summary of Data Qualifiers

B Blank contamination. The recorded result is associated with a contaminated blank.

L LCS recovery is outside of established acceptance limits

M Matrix spike recovery is outside established acceptance limits

RPD Relative Percent Difference

Qual Qualifiers

-RE Denotes sample was re-analyzed

D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

1941 REYMET ROAD  
RICHMOND, VIRGINIA 23237  
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CHAIN OF CUSTODY

COMPANY NAME: <u>Total Environmental Concepts</u> CONTACT: <u>Shanna Hryniak</u> ADDRESS: <u>8382 Terminus Rd,orton, VA</u> PHONE #: <u>804-389-7983</u> FAX #: <u>NA</u> EMAIL: <u>shryniak@teci.pro</u>		INVOICE TO: <u>same</u> INVOICE CONTACT: <u>Shanna Hryniak</u> INVOICE ADDRESS: <u>same</u> INVOICE PHONE #: <u>703-567-4346</u>		PROJECT NAME/Quote #: <u>Coopers Cove Rd</u> SITE NAME: <u>Coopers Cove Rd Hardy VA</u> PROJECT NUMBER: <u>4210155-001</u> P.O. #: <u>426077-001</u>									
Is sample for compliance reporting? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Regulatory State: <u>VA</u>		Pretreatment Program: <u>No</u> PWS I.D. #: _____		Turn Around Time: Circle 10 (5) Days or Day(s)									
SAMPLER NAME (PRINT): <u>David C Dudley</u> Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids A=Air WP=Wipe Off-Other		SAMPLER SIGNATURE: <u>[Signature]</u> Is sample from a chlorinated supply? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		COMMENTS: <u>WDEQ State Lead Notes</u>									
CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop	Grab Time or Composite Stop	Time Preserved	Matrix (See Codes)	Number of Containers	QC Data Package	LAB USE ONLY	Therm ID:
1) 17 Ridgecrest Rd	<input checked="" type="checkbox"/>			4-2-24	1:30	4:00	4:00	GW	5	<input checked="" type="checkbox"/>	271	Observed Temp °C: 3.5	
2) Trip blank	<input checked="" type="checkbox"/>			4-2-24	2:01	4:00	4:00	GW	5	<input checked="" type="checkbox"/>	271	Correction Factor °C: 0.0	
3) 1601 Coopers Cove Rd	<input checked="" type="checkbox"/>			4-2-24	2:25	4:10	4:10	GW	5	<input checked="" type="checkbox"/>	271	Corrected Temp °C: 3.5	
4) _____	<input checked="" type="checkbox"/>			4-2-24	2:55	4:00	4:00	GW	5	<input checked="" type="checkbox"/>	271	Received on ice? <input checked="" type="checkbox"/> (Y/N)	
5) 2234 Coopers Cove Rd	<input checked="" type="checkbox"/>			4-2-24	3:30	4:10	4:10	GW	5	<input checked="" type="checkbox"/>	271		
6) _____	<input checked="" type="checkbox"/>												
7) 5290 Pikeer Rd	<input checked="" type="checkbox"/>												
8) _____	<input checked="" type="checkbox"/>												
9) 5281 Pitzer Rd	<input checked="" type="checkbox"/>												
10) _____	<input checked="" type="checkbox"/>												
RELINQUISHED: <u>[Signature]</u>	DATE / TIME: 4/3/24 1030	RECEIVED: <u>[Signature]</u>	DATE / TIME: 4/3/24 1155	RECEIVED: <u>[Signature]</u> DATE / TIME: 4/3/24 1155		RECEIVED: <u>[Signature]</u> DATE / TIME: 4/3/24 1155		RECEIVED: <u>[Signature]</u> DATE / TIME: 4/3/24 1155		RECEIVED: <u>[Signature]</u> DATE / TIME: 4/3/24 1155		RECEIVED: <u>[Signature]</u> DATE / TIME: 4/3/24 1155	

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## CHAIN OF CUSTODY

<b>COMPANY NAME:</b> <i>Total Environmental Concepts</i> <b>CONTACT:</b> <i>Shanna Hrynich</i> <b>ADDRESS:</b> <i>8382 Terrina Rd., Lorton, VA</i> <b>PHONE #:</b> <i>804-389-7983</i> <b>FAX #:</b> <i>N/A</i> <b>EMAIL:</b> <i>shrynich@teci.pro</i>		<b>INVOICE TO:</b> <i>same</i> <b>INVOICE CONTACT:</b> <i>Shanna Hrynich</i> <b>INVOICE ADDRESS:</b> <i>same</i> <b>INVOICE PHONE #:</b> <i>703-567-4346</i>		<b>PROJECT NAME/Quote #:</b> <i>Coopers Cove Rd</i> <b>SITE NAME:</b> <i>Coopers Cove Rd Hardy VA</i> <b>PROJECT NUMBER:</b> <i>426057-2024</i> <b>P.O. #:</b> <i>8425</i> <b>Pretreatment Program:</b> <i>No</i>									
<b>Is sample for compliance reporting?</b> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Regulatory State:		<b>Is sample from a chlorinated supply?</b> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> PWS I.D. #:		<b>Turn Around Time:</b> Circle 10 (5) Days or Day(s)									
<b>SAMPLER NAME (PRINT):</b> <i>David C. Dudley</i> <small>Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids A=Air WP=Wipe Off-Other</small>		<b>SAMPLER SIGNATURE:</b> <i>[Signature]</i> <small>Matrix (See Codes)</small>		<b>COMMENTS:</b> <i>WDEO State Lead Rates?</i>									
CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time	Time Preserved	Matrix (See Codes)	Number of Containers	QC Data Package	LAB USE ONLY	Therm ID:
1) 17 Ridgecrest Rd	<input checked="" type="checkbox"/>					4-2-24	11:30	4:00	GW	5	<input checked="" type="checkbox"/>	271	Observed Temp °C: 3.5
2) Trip blank	<input checked="" type="checkbox"/>					4-2-24	2:01	4:00	GW	4	<input checked="" type="checkbox"/>		Correction Factor °C: 0.0
3) 601 Coopers Cove Rd	<input checked="" type="checkbox"/>					4-2-24	2:25	4:00	GW	5	<input checked="" type="checkbox"/>		Corrected Temp °C: 3.5
4)													Received on loc? <input checked="" type="checkbox"/> (Y/N)
5) 2234 Coopers Cove Rd	<input checked="" type="checkbox"/>					4-2-24	2:55	4:00	GW	5	<input checked="" type="checkbox"/>		
6)													
7) 5290 Pitzer Rd	<input checked="" type="checkbox"/>					4-2-24	3:30	4:10	GW	5	<input checked="" type="checkbox"/>		
8)													
9) 5281 Pitzer Rd	<input checked="" type="checkbox"/>					4-2-24	3:30	4:10	GW	5	<input checked="" type="checkbox"/>		
10)													
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME	RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME	RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME	RELINQUISHED:	DATE / TIME
<i>[Signature]</i>	4/3/24 1030	<i>[Signature]</i>	4/3/24 1155	<i>[Signature]</i>	4/3/24 1155	<i>[Signature]</i>	4/3/24 1155	<i>[Signature]</i>	4/3/24 1155	<i>[Signature]</i>	4/3/24 1155	<i>[Signature]</i>	4/3/24 1155

REC-04/10/2024 Due: 04/17/2024

TEC-Springfield 24D0561  
Coopers Cove - State Lead



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

## Sample Conditions Checklist

Samples Received at:	3.50°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	No
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	Yes
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

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Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

## Sample Conditions Checklist

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Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes

### Work Order Comments

Shanna Hryvniak requested VOC 8260 analysis on 24D0224 via email. VJT 4/10/24 1431

Trip blank collection information was taken off of the sample containers. VJT 4/10/24 1456



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### Certificate of Analysis

#### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 10, 2024 15:41
Submitted To:	Jessica Brock	Project Number:	4260177-001
Client Site I.D.:	Coopers Cove Rd Hardy, VA	Purchase Order:	4260177-001

### Sample Conditions Checklist

Samples Received at:	3.50°C
How were samples received?	
Were Custody Seals used? If so, were they received intact?	No
Are the custody papers filled out completely and correctly?	Yes
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Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes

#### Work Order Comments

Shanna Hryvniak requested VOC 8260 analysis on 24D0224 via email. VJT 4/10/24 1431

Trip blank collection information was taken off of the sample containers. VJT 4/10/24 1456



**Attachment D**

**Laboratory Analytical Report (4/4/2024)**



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## Certificate of Analysis

*Final Report*

Laboratory Order ID 24D0364

Client Name: Total Environmental Concepts-Lorton  
8382 Terminal Rd, Bay B

Date Received: April 5, 2024 14:30

Date Issued: April 11, 2024 14:43

Lorton, VA 22079

Project Number: 4260177

Submitted To: Shanna Hryvniak

Purchase Order: 4260177-001

Client Site I.D.: Coopers Cove Rd, Hardy VA

Enclosed are the results of analyses for samples received by the laboratory on 04/05/2024 14:30. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads 'Ted Soyars'.

Ted Soyars  
Technical Director

### End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

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TNI Accredited  
VELAP ID 460021



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### Certificate of Analysis

*Final Report*

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

#### ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 24D0364

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1430 Coopers Cove Rd	24D0364-01	Ground Water	04/04/2024 10:15	04/05/2024 14:30
5274 Palmetto Bluff	24D0364-02	Ground Water	04/04/2024 11:00	04/05/2024 14:30
5390 Palmetto Bluff	24D0364-03	Ground Water	04/04/2024 11:30	04/05/2024 14:30
Trip Blank	24D0364-04	Non-Potable Water	04/03/2024 12:00	04/05/2024 14:30
Trip Blank	24D0364-05	Non-Potable Water	12/01/2023 00:00	04/05/2024 14:30



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

#### Analytical Results

Sample I.D. 1430 Coopers Cove Rd Laboratory Sample ID: 24D0364-01  
 Grab Date/Time: 04/04/2024 10:15  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	04/09/24 15:09	04/09/24 15:09	RJB
1,1,1-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,1,2,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	04/09/24 15:09	04/09/24 15:09	RJB
1,1,2-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,1-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,1-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,1-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,2,3-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,2,3-Trichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,2,4-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,2,4-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,2-Dibromoethane (EDB)	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,2-Dichlorobenzene	01	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:09	04/09/24 15:09	RJB
1,2-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,2-Dichloropropane	01	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:09	04/09/24 15:09	RJB
1,3,5-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,3-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,3-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
1,4-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
2,2-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
2-Butanone (MEK)	01	SW8260D	<10.0 ug/L		10.0	1	04/09/24 15:09	04/09/24 15:09	RJB
2-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
2-Hexanone (MBK)	01	SW8260D	<5.00 ug/L		5.00	1	04/09/24 15:09	04/09/24 15:09	RJB
4-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

### Analytical Results

Sample I.D. 1430 Coopers Cove Rd Laboratory Sample ID: 24D0364-01  
 Grab Date/Time: 04/04/2024 10:15  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
4-Methyl-2-pentanone (MIBK)	01	SW8260D	<5.00 ug/L		5.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Acetone	01	SW8260D	<10.0 ug/L		10.0	1	04/09/24 15:09	04/09/24 15:09	RJB
Benzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Bromobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Bromochloromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Bromodichloromethane	01	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:09	04/09/24 15:09	RJB
Bromoform	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Bromomethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Carbon disulfide	01	SW8260D	<10.0 ug/L		10.0	1	04/09/24 15:09	04/09/24 15:09	RJB
Carbon tetrachloride	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Chlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Chloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Chloroform	01	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:09	04/09/24 15:09	RJB
Chloromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
cis-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
cis-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Dibromochloromethane	01	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:09	04/09/24 15:09	RJB
Dibromomethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Dichlorodifluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Di-isopropyl ether (DIPE)	01	SW8260D	<5.00 ug/L		5.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Ethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Hexachlorobutadiene	01	SW8260D	<0.80 ug/L		0.80	1	04/09/24 15:09	04/09/24 15:09	RJB
Iodomethane	01	SW8260D	<10.0 ug/L		10.0	1	04/09/24 15:09	04/09/24 15:09	RJB
Isopropylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
m+p-Xylenes	01	SW8260D	<2.00 ug/L		2.00	1	04/09/24 15:09	04/09/24 15:09	RJB



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## Certificate of Analysis

### Final Report

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 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

#### Analytical Results

Sample I.D. 1430 Coopers Cove Rd Laboratory Sample ID: 24D0364-01  
 Grab Date/Time: 04/04/2024 10:15  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	01	SW8260D	<4.00 ug/L		4.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Methyl-t-butyl ether (MTBE)	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Naphthalene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
n-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
n-Propylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
o-Xylene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
sec-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Styrene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
tert-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Tetrachloroethylene (PCE)	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Toluene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
trans-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
trans-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Trichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Trichlorofluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Vinyl acetate	01	SW8260D	<10.0 ug/L		10.0	1	04/09/24 15:09	04/09/24 15:09	RJB
Vinyl chloride	01	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:09	04/09/24 15:09	RJB
Xylenes, Total	01	SW8260D	<3.00 ug/L		3.00	1	04/09/24 15:09	04/09/24 15:09	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	01	SW8260D	111 %		70-120		04/09/24 15:09	04/09/24 15:09	RJB
Surr: 4-Bromofluorobenzene (Surr)	01	SW8260D	91.9 %		75-120		04/09/24 15:09	04/09/24 15:09	RJB
Surr: Dibromofluoromethane (Surr)	01	SW8260D	94.4 %		70-130		04/09/24 15:09	04/09/24 15:09	RJB
Surr: Toluene-d8 (Surr)	01	SW8260D	99.1 %		70-130		04/09/24 15:09	04/09/24 15:09	RJB

#### Micro-extractables by GC/ECD





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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

### Analytical Results

Sample I.D. 1430 Coopers Cove Rd Laboratory Sample ID: 24D0364-01  
 Grab Date/Time: 04/04/2024 10:15  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	01	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 00:42	ATG
1,2,3-Trichloropropane	01	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 00:42	ATG
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 00:42	ATG



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## Certificate of Analysis

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 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

#### Analytical Results

Sample I.D. 5274 Palmetto Bluff Laboratory Sample ID: 24D0364-02  
 Grab Date/Time: 04/04/2024 11:00  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	04/09/24 15:35	04/09/24 15:35	RJB
1,1,1-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,1,2,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	04/09/24 15:35	04/09/24 15:35	RJB
1,1,2-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,1-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,1-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,1-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,2,3-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,2,3-Trichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,2,4-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,2,4-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,2-Dibromoethane (EDB)	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,2-Dichlorobenzene	02	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:35	04/09/24 15:35	RJB
1,2-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,2-Dichloropropane	02	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:35	04/09/24 15:35	RJB
1,3,5-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,3-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,3-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
1,4-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
2,2-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
2-Butanone (MEK)	02	SW8260D	<10.0 ug/L		10.0	1	04/09/24 15:35	04/09/24 15:35	RJB
2-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
2-Hexanone (MBK)	02	SW8260D	<5.00 ug/L		5.00	1	04/09/24 15:35	04/09/24 15:35	RJB
4-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0364

#### Analytical Results

Sample I.D. 5274 Palmetto Bluff	Laboratory Sample ID: 24D0364-02
Grab Date/Time: 04/04/2024 11:00	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
4-Methyl-2-pentanone (MIBK)	02	SW8260D	<5.00 ug/L		5.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Acetone	02	SW8260D	<10.0 ug/L		10.0	1	04/09/24 15:35	04/09/24 15:35	RJB
Benzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Bromobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Bromochloromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Bromodichloromethane	02	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:35	04/09/24 15:35	RJB
Bromoform	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Bromomethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Carbon disulfide	02	SW8260D	<10.0 ug/L		10.0	1	04/09/24 15:35	04/09/24 15:35	RJB
Carbon tetrachloride	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Chlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Chloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Chloroform	02	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:35	04/09/24 15:35	RJB
Chloromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
cis-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
cis-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Dibromochloromethane	02	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:35	04/09/24 15:35	RJB
Dibromomethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Dichlorodifluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Di-isopropyl ether (DIPE)	02	SW8260D	<5.00 ug/L		5.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Ethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Hexachlorobutadiene	02	SW8260D	<0.80 ug/L		0.80	1	04/09/24 15:35	04/09/24 15:35	RJB
Iodomethane	02	SW8260D	<10.0 ug/L		10.0	1	04/09/24 15:35	04/09/24 15:35	RJB
Isopropylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
m+p-Xylenes	02	SW8260D	<2.00 ug/L		2.00	1	04/09/24 15:35	04/09/24 15:35	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

#### Analytical Results

Sample I.D. 5274 Palmetto Bluff Laboratory Sample ID: 24D0364-02

Grab Date/Time: 04/04/2024 11:00

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	02	SW8260D	<4.00 ug/L		4.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Methyl-t-butyl ether (MTBE)	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Naphthalene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
n-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
n-Propylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
o-Xylene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
sec-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Styrene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
tert-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Tetrachloroethylene (PCE)	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Toluene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
trans-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
trans-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Trichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Trichlorofluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Vinyl acetate	02	SW8260D	<10.0 ug/L		10.0	1	04/09/24 15:35	04/09/24 15:35	RJB
Vinyl chloride	02	SW8260D	<0.50 ug/L		0.50	1	04/09/24 15:35	04/09/24 15:35	RJB
Xylenes, Total	02	SW8260D	<3.00 ug/L		3.00	1	04/09/24 15:35	04/09/24 15:35	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	02	SW8260D	111 %		70-120		04/09/24 15:35	04/09/24 15:35	RJB
Surr: 4-Bromofluorobenzene (Surr)	02	SW8260D	93.5 %		75-120		04/09/24 15:35	04/09/24 15:35	RJB
Surr: Dibromofluoromethane (Surr)	02	SW8260D	94.7 %		70-130		04/09/24 15:35	04/09/24 15:35	RJB
Surr: Toluene-d8 (Surr)	02	SW8260D	100 %		70-130		04/09/24 15:35	04/09/24 15:35	RJB

#### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

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 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

### Analytical Results

Sample I.D. 5274 Palmetto Bluff Laboratory Sample ID: 24D0364-02  
 Grab Date/Time: 04/04/2024 11:00  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	02	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 01:03	ATG
1,2,3-Trichloropropane	02	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 01:03	ATG
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 01:03	ATG



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 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

#### Analytical Results

Sample I.D. 5390 Palmetto Bluff Laboratory Sample ID: 24D0364-03  
 Grab Date/Time: 04/04/2024 11:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	04/09/24 16:26	04/09/24 16:26	RJB
1,1,1-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,1,2,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	04/09/24 16:26	04/09/24 16:26	RJB
1,1,2-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,1-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,1-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,1-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,2,3-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,2,3-Trichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,2,4-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,2,4-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,2-Dibromoethane (EDB)	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,2-Dichlorobenzene	03	SW8260D	<0.50 ug/L		0.50	1	04/09/24 16:26	04/09/24 16:26	RJB
1,2-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,2-Dichloropropane	03	SW8260D	<0.50 ug/L		0.50	1	04/09/24 16:26	04/09/24 16:26	RJB
1,3,5-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,3-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,3-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
1,4-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
2,2-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
2-Butanone (MEK)	03	SW8260D	<10.0 ug/L		10.0	1	04/09/24 16:26	04/09/24 16:26	RJB
2-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
2-Hexanone (MBK)	03	SW8260D	<5.00 ug/L		5.00	1	04/09/24 16:26	04/09/24 16:26	RJB
4-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

### Analytical Results

Sample I.D. 5390 Palmetto Bluff Laboratory Sample ID: 24D0364-03

Grab Date/Time: 04/04/2024 11:30

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
4-Methyl-2-pentanone (MIBK)	03	SW8260D	<5.00 ug/L		5.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Acetone	03	SW8260D	<10.0 ug/L		10.0	1	04/09/24 16:26	04/09/24 16:26	RJB
Benzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Bromobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Bromochloromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Bromodichloromethane	03	SW8260D	<0.50 ug/L		0.50	1	04/09/24 16:26	04/09/24 16:26	RJB
Bromoform	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Bromomethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Carbon disulfide	03	SW8260D	<10.0 ug/L		10.0	1	04/09/24 16:26	04/09/24 16:26	RJB
Carbon tetrachloride	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Chlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Chloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Chloroform	03	SW8260D	<0.50 ug/L		0.50	1	04/09/24 16:26	04/09/24 16:26	RJB
Chloromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
cis-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
cis-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Dibromochloromethane	03	SW8260D	<0.50 ug/L		0.50	1	04/09/24 16:26	04/09/24 16:26	RJB
Dibromomethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Dichlorodifluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Di-isopropyl ether (DIPE)	03	SW8260D	<5.00 ug/L		5.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Ethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Hexachlorobutadiene	03	SW8260D	<0.80 ug/L		0.80	1	04/09/24 16:26	04/09/24 16:26	RJB
Iodomethane	03	SW8260D	<10.0 ug/L		10.0	1	04/09/24 16:26	04/09/24 16:26	RJB
Isopropylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
m+p-Xylenes	03	SW8260D	<2.00 ug/L		2.00	1	04/09/24 16:26	04/09/24 16:26	RJB



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0364

#### Analytical Results

Sample I.D. 5390 Palmetto Bluff Laboratory Sample ID: 24D0364-03

Grab Date/Time: 04/04/2024 11:30

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	03	SW8260D	<4.00 ug/L		4.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Methyl-t-butyl ether (MTBE)	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Naphthalene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
n-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
n-Propylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
o-Xylene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
sec-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Styrene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
tert-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Tetrachloroethylene (PCE)	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Toluene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
trans-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
trans-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Trichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Trichlorofluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Vinyl acetate	03	SW8260D	<10.0 ug/L		10.0	1	04/09/24 16:26	04/09/24 16:26	RJB
Vinyl chloride	03	SW8260D	<0.50 ug/L		0.50	1	04/09/24 16:26	04/09/24 16:26	RJB
Xylenes, Total	03	SW8260D	<3.00 ug/L		3.00	1	04/09/24 16:26	04/09/24 16:26	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	03	SW8260D	108 %		70-120		04/09/24 16:26	04/09/24 16:26	RJB
Surr: 4-Bromofluorobenzene (Surr)	03	SW8260D	94.4 %		75-120		04/09/24 16:26	04/09/24 16:26	RJB
Surr: Dibromofluoromethane (Surr)	03	SW8260D	93.5 %		70-130		04/09/24 16:26	04/09/24 16:26	RJB
Surr: Toluene-d8 (Surr)	03	SW8260D	101 %		70-130		04/09/24 16:26	04/09/24 16:26	RJB

#### Micro-extractables by GC/ECD





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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

### Analytical Results

Sample I.D. 5390 Palmetto Bluff Laboratory Sample ID: 24D0364-03

Grab Date/Time: 04/04/2024 11:30

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	03	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 01:25	ATG
1,2,3-Trichloropropane	03	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 01:25	ATG
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 01:25	ATG



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## Certificate of Analysis

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 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

#### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24D0364-04  
 Grab Date/Time: 04/03/2024 12:00  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	04	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 01:47	ATG
1,2,3-Trichloropropane	04	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 01:47	ATG
1,2-Dibromo-3-chloropropane (DBCP)	04	SW8011	<0.010 ug/L		0.010	1	04/09/24 09:45	04/10/24 01:47	ATG



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24D0364-05  
 Grab Date/Time: 12/01/2023 00:00  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	05	SW8260D	<0.40 ug/L		0.40	1	04/09/24 14:44	04/09/24 14:44	RJB
1,1,1-Trichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,1,2,2-Tetrachloroethane	05	SW8260D	<0.40 ug/L		0.40	1	04/09/24 14:44	04/09/24 14:44	RJB
1,1,2-Trichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,1-Dichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,1-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,1-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,2,3-Trichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,2,3-Trichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,2,4-Trichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,2,4-Trimethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,2-Dibromo-3-chloropropane (DBCP)	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,2-Dibromoethane (EDB)	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,2-Dichlorobenzene	05	SW8260D	<0.50 ug/L		0.50	1	04/09/24 14:44	04/09/24 14:44	RJB
1,2-Dichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,2-Dichloropropane	05	SW8260D	<0.50 ug/L		0.50	1	04/09/24 14:44	04/09/24 14:44	RJB
1,3,5-Trimethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,3-Dichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,3-Dichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
1,4-Dichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
2,2-Dichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
2-Butanone (MEK)	05	SW8260D	<10.0 ug/L		10.0	1	04/09/24 14:44	04/09/24 14:44	RJB
2-Chlorotoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
2-Hexanone (MBK)	05	SW8260D	<5.00 ug/L		5.00	1	04/09/24 14:44	04/09/24 14:44	RJB
4-Chlorotoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24D0364-05  
 Grab Date/Time: 12/01/2023 00:00  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
4-Methyl-2-pentanone (MIBK)	05	SW8260D	<5.00 ug/L		5.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Acetone	05	SW8260D	<10.0 ug/L		10.0	1	04/09/24 14:44	04/09/24 14:44	RJB
Benzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Bromobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Bromochloromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Bromodichloromethane	05	SW8260D	<0.50 ug/L		0.50	1	04/09/24 14:44	04/09/24 14:44	RJB
Bromoform	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Bromomethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Carbon disulfide	05	SW8260D	<10.0 ug/L		10.0	1	04/09/24 14:44	04/09/24 14:44	RJB
Carbon tetrachloride	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Chlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Chloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
<b>Chloroform</b>	05	SW8260D	<b>4.00 ug/L</b>		0.50	1	04/09/24 14:44	04/09/24 14:44	RJB
Chloromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
cis-1,2-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
cis-1,3-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Dibromochloromethane	05	SW8260D	<0.50 ug/L		0.50	1	04/09/24 14:44	04/09/24 14:44	RJB
Dibromomethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Dichlorodifluoromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Di-isopropyl ether (DIPE)	05	SW8260D	<5.00 ug/L		5.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Ethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Hexachlorobutadiene	05	SW8260D	<0.80 ug/L		0.80	1	04/09/24 14:44	04/09/24 14:44	RJB
Iodomethane	05	SW8260D	<10.0 ug/L		10.0	1	04/09/24 14:44	04/09/24 14:44	RJB
Isopropylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
m+p-Xylenes	05	SW8260D	<2.00 ug/L		2.00	1	04/09/24 14:44	04/09/24 14:44	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0364

#### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24D0364-05  
 Grab Date/Time: 12/01/2023 00:00  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	05	SW8260D	<4.00 ug/L		4.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Methyl-t-butyl ether (MTBE)	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Naphthalene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
n-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
n-Propylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
o-Xylene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
sec-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Styrene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
tert-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Tetrachloroethylene (PCE)	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Toluene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
trans-1,2-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
trans-1,3-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Trichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Trichlorofluoromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Vinyl acetate	05	SW8260D	<10.0 ug/L		10.0	1	04/09/24 14:44	04/09/24 14:44	RJB
Vinyl chloride	05	SW8260D	<0.50 ug/L		0.50	1	04/09/24 14:44	04/09/24 14:44	RJB
Xylenes, Total	05	SW8260D	<3.00 ug/L		3.00	1	04/09/24 14:44	04/09/24 14:44	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	05	SW8260D	109 %		70-120		04/09/24 14:44	04/09/24 14:44	RJB
Surr: 4-Bromofluorobenzene (Surr)	05	SW8260D	94.0 %		75-120		04/09/24 14:44	04/09/24 14:44	RJB
Surr: Dibromofluoromethane (Surr)	05	SW8260D	95.6 %		70-130		04/09/24 14:44	04/09/24 14:44	RJB
Surr: Toluene-d8 (Surr)	05	SW8260D	101 %		70-130		04/09/24 14:44	04/09/24 14:44	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

### Analytical Summary

**Administrative**

**Preparation Method:**

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>		<b>Preparation Method: SW5030B-MS</b>			
24D0364-01	5.00 mL / 5.00 mL	SW8260D	BHD0345	SHD0350	AC40288
24D0364-02	5.00 mL / 5.00 mL	SW8260D	BHD0345	SHD0350	AC40288
24D0364-03	5.00 mL / 5.00 mL	SW8260D	BHD0345	SHD0350	AC40288
24D0364-05	5.00 mL / 5.00 mL	SW8260D	BHD0345	SHD0350	AC40288

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Micro-extractables by GC/ECD</b>		<b>Preparation Method: SW8011</b>			
24D0364-01	59.5 mL / 2.00 mL	SW8011	BHD0334	SHD0407	AD40200
24D0364-02	59.3 mL / 2.00 mL	SW8011	BHD0334	SHD0407	AD40200
24D0364-03	59.2 mL / 2.00 mL	SW8011	BHD0334	SHD0407	AD40200
24D0364-04	59.5 mL / 2.00 mL	SW8011	BHD0334	SHD0407	AD40200

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

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### QC Analytical Summary

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Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>			<b>Preparation Method: SW5030B-MS</b>		
BHD0345-BLK1	5.00 mL / 5.00 mL	SW8260D	BHD0345	SHD0350	AC40288
BHD0345-BS1	5.00 mL / 5.00 mL	SW8260D	BHD0345	SHD0350	AC40288
BHD0345-DUP1	5.00 mL / 5.00 mL	SW8260D	BHD0345	SHD0350	AC40288
BHD0345-MS1	5.00 mL / 5.00 mL	SW8260D	BHD0345	SHD0350	AC40288

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Micro-extractables by GC/ECD</b>			<b>Preparation Method: SW8011</b>		
BHD0334-BLK1	60.0 mL / 2.00 mL	SW8011	BHD0334	SHD0407	AD40200
BHD0334-BS1	60.0 mL / 2.00 mL	SW8011	BHD0334	SHD0407	AD40200
BHD0334-MS1	59.5 mL / 2.00 mL	SW8011	BHD0334	SHD0407	AD40200
BHD0334-MSD1	59.2 mL / 2.00 mL	SW8011	BHD0334	SHD0407	AD40200



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

#### Blank (BHD0345-BLK1)

Prepared & Analyzed: 04/09/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,4-Dioxane	<80.0 ug/L	80.0	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chloroethyl vinyl ether	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Acetonitrile	10.9 ug/L	10.0	ug/L							

B





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## Certificate of Analysis

### Final Report

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Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

#### Blank (BHD0345-BLK1)

Prepared & Analyzed: 04/09/2024

Acrolein	<10.0 ug/L	10.0	ug/L							
Acrylonitrile	<5.00 ug/L	5.00	ug/L							
Allyl chloride	<1.00 ug/L	1.00	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							
Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							
Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	<0.50 ug/L	0.50	ug/L							
Chloromethane	<1.00 ug/L	1.00	ug/L							
Chloroprene	<5.00 ug/L	5.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Cyclohexane	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethanol	<80.0 ug/L	80.0	ug/L							
Ethyl methacrylate	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Ethyl-t-butyl ether (ETBE)	<25.0 ug/L	25.0	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							
Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
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 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

##### Blank (BHD0345-BLK1)

Prepared & Analyzed: 04/09/2024

Methacrylonitrile	<1.50 ug/L	1.50	ug/L							
Methyl acetate	<4.00 ug/L	4.00	ug/L							
Methyl cyclohexane	<1.00 ug/L	1.00	ug/L							
Methyl methacrylate	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
Pentachloroethane	<10.0 ug/L	10.0	ug/L							
Propionitrile	<40.0 ug/L	40.0	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
TAAE	<5.00 ug/L	5.00	ug/L							
TAME	<5.00 ug/L	5.00	ug/L							
TBA	<100 ug/L	100	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
trans-1,4-Dichloro-2-butene	<4.00 ug/L	4.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							
Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
Diethyl ether	<5.00 ug/L	5.00	ug/L							
<hr/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	54.9		ug/L	50.0		110	70-120			
Surr: 4-Bromofluorobenzene (Surr)	47.6		ug/L	50.0		95.3	75-120			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

##### Blank (BHD0345-BLK1)

Prepared &amp; Analyzed: 04/09/2024

Surr: Dibromofluoromethane (Surr)	45.1		ug/L	50.0		90.3	70-130			
Surr: Toluene-d8 (Surr)	50.9		ug/L	50.0		102	70-130			

##### LCS (BHD0345-BS1)

Prepared &amp; Analyzed: 04/09/2024

1,1,1,2-Tetrachloroethane	50.9 ug/L	0.4	ug/L	50.0	ug/L	102	80-130			
1,1,1-Trichloroethane	54.7 ug/L	1	ug/L	50.0	ug/L	109	65-130			
1,1,2,2-Tetrachloroethane	50.1 ug/L	0.4	ug/L	50.0	ug/L	100	65-130			
1,1,2-Trichloroethane	54.8 ug/L	1	ug/L	50.0	ug/L	110	75-125			
1,1-Dichloroethane	49.9 ug/L	1	ug/L	50.0	ug/L	99.8	70-135			
1,1-Dichloroethylene	45.5 ug/L	1	ug/L	50.0	ug/L	90.9	70-130			
1,1-Dichloropropene	55.2 ug/L	1	ug/L	50.0	ug/L	110	75-135			
1,2,3-Trichlorobenzene	52.6 ug/L	1	ug/L	50.0	ug/L	105	55-140			
1,2,3-Trichloropropane	51.1 ug/L	1	ug/L	50.0	ug/L	102	75-125			
1,2,4-Trichlorobenzene	51.8 ug/L	1	ug/L	50.0	ug/L	104	65-135			
1,2,4-Trimethylbenzene	56.1 ug/L	1	ug/L	50.0	ug/L	112	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	57.0 ug/L	1	ug/L	50.0	ug/L	114	50-130			
1,2-Dibromoethane (EDB)	53.1 ug/L	1	ug/L	50.0	ug/L	106	80-120			
1,2-Dichlorobenzene	53.4 ug/L	0.5	ug/L	50.0	ug/L	107	70-120			
1,2-Dichloroethane	47.8 ug/L	1	ug/L	50.0	ug/L	95.6	70-130			
1,2-Dichloropropane	58.0 ug/L	0.5	ug/L	50.0	ug/L	116	75-125			
1,3,5-Trimethylbenzene	54.3 ug/L	1	ug/L	50.0	ug/L	109	75-125			
1,3-Dichlorobenzene	51.4 ug/L	1	ug/L	50.0	ug/L	103	75-125			
1,3-Dichloropropane	50.7 ug/L	1	ug/L	50.0	ug/L	101	75-125			
1,4-Dichlorobenzene	49.2 ug/L	1	ug/L	50.0	ug/L	98.4	75-125			
2,2-Dichloropropane	49.0 ug/L	1	ug/L	50.0	ug/L	97.9	70-135			
2-Butanone (MEK)	45.1 ug/L	10	ug/L	50.0	ug/L	90.2	30-150			
2-Chlorotoluene	53.3 ug/L	1	ug/L	50.0	ug/L	107	75-125			
2-Hexanone (MBK)	59.0 ug/L	5	ug/L	50.0	ug/L	118	55-130			
4-Chlorotoluene	55.6 ug/L	1	ug/L	50.0	ug/L	111	75-130			
4-Isopropyltoluene	58.2 ug/L	1	ug/L	50.0	ug/L	116	75-130			
4-Methyl-2-pentanone (MIBK)	58.2 ug/L	5	ug/L	50.0	ug/L	116	60-135			
Acetone	44.8 ug/L	10	ug/L	50.0	ug/L	89.5	40-140			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

#### LCS (BHD0345-BS1)

Prepared & Analyzed: 04/09/2024

Benzene	53.3 ug/L	1	ug/L	50.0	ug/L	107	80-120			
Bromobenzene	49.6 ug/L	1	ug/L	50.0	ug/L	99.2	75-125			
Bromochloromethane	42.3 ug/L	1	ug/L	50.0	ug/L	84.5	65-130			
Bromodichloromethane	52.4 ug/L	0.5	ug/L	50.0	ug/L	105	75-120			
Bromoform	47.1 ug/L	1	ug/L	50.0	ug/L	94.3	70-130			
Bromomethane	42.3 ug/L	1	ug/L	50.0	ug/L	84.6	30-145			
Carbon disulfide	51.0 ug/L	10	ug/L	50.0	ug/L	102	35-160			
Carbon tetrachloride	54.4 ug/L	1	ug/L	50.0	ug/L	109	65-140			
Chlorobenzene	51.0 ug/L	1	ug/L	50.0	ug/L	102	80-120			
Chloroethane	47.5 ug/L	1	ug/L	50.0	ug/L	95.0	60-135			
Chloroform	44.7 ug/L	0.5	ug/L	50.0	ug/L	89.3	65-135			
Chloromethane	54.2 ug/L	1	ug/L	50.0	ug/L	108	40-125			
cis-1,2-Dichloroethylene	44.5 ug/L	1	ug/L	50.0	ug/L	89.1	70-125			
cis-1,3-Dichloropropene	56.0 ug/L	1	ug/L	50.0	ug/L	112	70-130			
Dibromochloromethane	50.3 ug/L	0.5	ug/L	50.0	ug/L	101	60-135			
Dibromomethane	53.4 ug/L	1	ug/L	50.0	ug/L	107	75-125			
Dichlorodifluoromethane	52.5 ug/L	1	ug/L	50.0	ug/L	105	30-155			
Ethylbenzene	53.0 ug/L	1	ug/L	50.0	ug/L	106	75-125			
Hexachlorobutadiene	55.2 ug/L	0.8	ug/L	50.0	ug/L	110	50-140			
Isopropylbenzene	49.6 ug/L	1	ug/L	50.0	ug/L	99.2	75-125			
m+p-Xylenes	101 ug/L	2	ug/L	100	ug/L	101	75-130			
Methylene chloride	42.6 ug/L	4	ug/L	50.0	ug/L	85.3	55-140			
Methyl-t-butyl ether (MTBE)	42.3 ug/L	1	ug/L	50.0	ug/L	84.6	65-125			
Naphthalene	52.4 ug/L	1	ug/L	50.0	ug/L	105	55-140			
n-Butylbenzene	61.9 ug/L	1	ug/L	50.0	ug/L	124	70-135			
n-Propylbenzene	54.6 ug/L	1	ug/L	50.0	ug/L	109	70-130			
o-Xylene	52.2 ug/L	1	ug/L	50.0	ug/L	104	80-120			
sec-Butylbenzene	62.5 ug/L	1	ug/L	50.0	ug/L	125	70-125			L
Styrene	39.9 ug/L	1	ug/L	50.0	ug/L	79.9	65-135			
tert-Butylbenzene	56.6 ug/L	1	ug/L	50.0	ug/L	113	70-130			
Tetrachloroethylene (PCE)	54.9 ug/L	1	ug/L	50.0	ug/L	110	45-150			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
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Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

##### LCS (BHD0345-BS1)

Prepared & Analyzed: 04/09/2024

Toluene	50.4 ug/L	1	ug/L	50.0	ug/L	101	75-120		
trans-1,2-Dichloroethylene	46.8 ug/L	1	ug/L	50.0	ug/L	93.6	60-140		
trans-1,3-Dichloropropene	58.3 ug/L	1	ug/L	50.0	ug/L	117	55-140		
Trichloroethylene	52.3 ug/L	1	ug/L	50.0	ug/L	105	70-125		
Trichlorofluoromethane	50.4 ug/L	1	ug/L	50.0	ug/L	101	60-145		
Vinyl chloride	43.0 ug/L	0.5	ug/L	50.0	ug/L	86.1	50-145		
<hr style="border-top: 1px dashed black;"/>									
Surr: 1,2-Dichloroethane-d4 (Surr)	53.6		ug/L	50.0	ug/L	107	70-120		
Surr: 4-Bromofluorobenzene (Surr)	49.2		ug/L	50.0	ug/L	98.4	75-120		
Surr: Dibromofluoromethane (Surr)	46.7		ug/L	50.0	ug/L	93.5	70-130		
Surr: Toluene-d8 (Surr)	49.8		ug/L	50.0	ug/L	99.6	70-130		

##### Duplicate (BHD0345-DUP1)

Source: 24D0364-02

Prepared & Analyzed: 04/09/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40 ug/L			NA	30	
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40 ug/L			NA	30	
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L	<0.50 ug/L			NA	30	
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L			NA	30	
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L			NA	30	



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

Duplicate (BHD0345-DUP1)	Source: 24D0364-02			Prepared & Analyzed: 04/09/2024						
1,4-Dioxane	<80.0 ug/L	80.0	ug/L	<80.0 ug/L				NA	30	
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
2-Chloroethyl vinyl ether	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Acetone	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Acetonitrile	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Acrolein	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Acrylonitrile	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Allyl chloride	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Benzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromochloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromodichloromethane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Bromoform	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Carbon disulfide	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroform	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Chloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroprene	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Cyclohexane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Dibromochloromethane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

##### Duplicate (BHD0345-DUP1)

Source: 24D0364-02

Prepared & Analyzed: 04/09/2024

Dibromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Ethanol	<80.0 ug/L	80.0	ug/L	<80.0 ug/L				NA	30	
Ethyl methacrylate	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Ethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Ethyl-t-butyl ether (ETBE)	<25.0 ug/L	25.0	ug/L	<25.0 ug/L				NA	30	
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L	<0.80 ug/L				NA	30	
Iodomethane	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Isopropylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
m+p-Xylenes	<2.00 ug/L	2.00	ug/L	<2.00 ug/L				NA	30	
Methacrylonitrile	<1.50 ug/L	1.50	ug/L	<1.50 ug/L				NA	30	
Methyl acetate	<4.00 ug/L	4.00	ug/L	<4.00 ug/L				NA	30	
Methyl cyclohexane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Methyl methacrylate	<2.00 ug/L	2.00	ug/L	<2.00 ug/L				NA	30	
Methylene chloride	<4.00 ug/L	4.00	ug/L	<4.00 ug/L				NA	30	
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Naphthalene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
n-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
n-Propylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
o-Xylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Pentachloroethane	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Propionitrile	<40.0 ug/L	40.0	ug/L	<40.0 ug/L				NA	30	
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Styrene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
TAAE	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
TAME	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
TBA	<100 ug/L	100	ug/L	<100 ug/L				NA	30	
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Toluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: April 11, 2024 14:43  
 8382 Terminal Rd, Bay B Project Number: 4260177  
 Lorton VA, 22079 Purchase Order: 4260177-001  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

##### Duplicate (BHD0345-DUP1)

Source: 24D0364-02

Prepared & Analyzed: 04/09/2024

trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
trans-1,4-Dichloro-2-butene	<4.00 ug/L	4.00	ug/L	<4.00 ug/L				NA	30	
Trichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Vinyl acetate	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Vinyl chloride	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Xylenes, Total	<3.00 ug/L	3.00	ug/L	<3.00 ug/L				NA	30	
Tetrahydrofuran	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Diethyl ether	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
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Surr: 1,2-Dichloroethane-d4 (Surr)	51.8		ug/L	50.0 ug/L	104		70-120			
Surr: 4-Bromofluorobenzene (Surr)	47.7		ug/L	50.0 ug/L	95.4		75-120			
Surr: Dibromofluoromethane (Surr)	47.5		ug/L	50.0 ug/L	95.0		70-130			
Surr: Toluene-d8 (Surr)	50.0		ug/L	50.0 ug/L	100		70-130			

##### Matrix Spike (BHD0345-MS1)

Source: 24D0364-01

Prepared & Analyzed: 04/09/2024

1,1,1,2-Tetrachloroethane	53.4 ug/L	0.4	ug/L	50.0 <0.4 ug/L	107		80-130			
1,1,1-Trichloroethane	56.2 ug/L	1	ug/L	50.0 <1 ug/L	112		65-130			
1,1,2,2-Tetrachloroethane	50.9 ug/L	0.4	ug/L	50.0 <0.4 ug/L	102		65-130			
1,1,2-Trichloroethane	53.1 ug/L	1	ug/L	50.0 <1 ug/L	106		75-125			
1,1-Dichloroethane	51.1 ug/L	1	ug/L	50.0 <1 ug/L	102		70-135			
1,1-Dichloroethylene	47.5 ug/L	1	ug/L	50.0 <1 ug/L	95.1		50-145			
1,1-Dichloropropene	55.9 ug/L	1	ug/L	50.0 <1 ug/L	112		75-135			
1,2,3-Trichlorobenzene	49.7 ug/L	1	ug/L	50.0 <1 ug/L	99.4		55-140			
1,2,3-Trichloropropane	52.9 ug/L	1	ug/L	50.0 <1 ug/L	106		75-125			
1,2,4-Trichlorobenzene	48.7 ug/L	1	ug/L	50.0 <1 ug/L	97.4		65-135			
1,2,4-Trimethylbenzene	55.1 ug/L	1	ug/L	50.0 <1 ug/L	110		75-130			
1,2-Dibromo-3-chloropropane (DBCP)	52.9 ug/L	1	ug/L	50.0 <1 ug/L	106		50-130			
1,2-Dibromoethane (EDB)	53.3 ug/L	1	ug/L	50.0 <1 ug/L	107		80-120			
1,2-Dichlorobenzene	51.4 ug/L	0.5	ug/L	50.0 <0.5 ug/L	103		70-120			
1,2-Dichloroethane	47.3 ug/L	1	ug/L	50.0 <1 ug/L	94.6		70-130			
1,2-Dichloropropane	57.9 ug/L	0.5	ug/L	50.0 <0.5 ug/L	116		75-125			



## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

##### Matrix Spike (BHD0345-MS1)

Source: 24D0364-01

Prepared &amp; Analyzed: 04/09/2024

1,3,5-Trimethylbenzene	52.4 ug/L	1	ug/L	50.0	<1 ug/L	105	75-124			
1,3-Dichlorobenzene	51.0 ug/L	1	ug/L	50.0	<1 ug/L	102	75-125			
1,3-Dichloropropane	48.8 ug/L	1	ug/L	50.0	<1 ug/L	97.5	75-125			
1,4-Dichlorobenzene	48.5 ug/L	1	ug/L	50.0	<1 ug/L	96.9	75-125			
2,2-Dichloropropane	49.8 ug/L	1	ug/L	50.0	<1 ug/L	99.6	70-135			
2-Butanone (MEK)	43.7 ug/L	10	ug/L	50.0	<10 ug/L	87.4	30-150			
2-Chlorotoluene	51.9 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125			
2-Hexanone (MBK)	58.7 ug/L	5	ug/L	50.0	<5 ug/L	117	55-130			
4-Chlorotoluene	52.3 ug/L	1	ug/L	50.0	<1 ug/L	105	75-130			
4-Isopropyltoluene	55.7 ug/L	1	ug/L	50.0	<1 ug/L	111	75-130			
4-Methyl-2-pentanone (MIBK)	54.7 ug/L	5	ug/L	50.0	<5 ug/L	109	60-135			
Acetone	41.4 ug/L	10	ug/L	50.0	<10 ug/L	82.9	40-140			
Benzene	52.6 ug/L	1	ug/L	50.0	<1 ug/L	105	80-120			
Bromobenzene	51.9 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125			
Bromochloromethane	41.7 ug/L	1	ug/L	50.0	<1 ug/L	83.3	65-130			
Bromodichloromethane	51.2 ug/L	0.5	ug/L	50.0	<0.5 ug/L	102	75-136			
Bromoform	47.5 ug/L	1	ug/L	50.0	<1 ug/L	95.0	70-130			
Bromomethane	43.3 ug/L	1	ug/L	50.0	<1 ug/L	86.7	30-145			
Carbon disulfide	51.1 ug/L	10	ug/L	50.0	<10 ug/L	102	35-160			
Carbon tetrachloride	55.3 ug/L	1	ug/L	50.0	<1 ug/L	111	65-140			
Chlorobenzene	53.3 ug/L	1	ug/L	50.0	<1 ug/L	107	80-120			
Chloroethane	47.8 ug/L	1	ug/L	50.0	<1 ug/L	95.6	60-135			
Chloroform	44.5 ug/L	0.5	ug/L	50.0	<0.5 ug/L	89.1	65-135			
Chloromethane	55.8 ug/L	1	ug/L	50.0	<1 ug/L	112	40-125			
cis-1,2-Dichloroethylene	43.8 ug/L	1	ug/L	50.0	<1 ug/L	87.5	70-125			
cis-1,3-Dichloropropene	53.6 ug/L	1	ug/L	50.0	<1 ug/L	107	47-136			
Dibromochloromethane	49.1 ug/L	0.5	ug/L	50.0	<0.5 ug/L	98.3	60-135			
Dibromomethane	52.0 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125			
Dichlorodifluoromethane	56.3 ug/L	1	ug/L	50.0	<1 ug/L	113	30-155			
Ethylbenzene	56.6 ug/L	1	ug/L	50.0	<1 ug/L	113	75-125			
Hexachlorobutadiene	54.0 ug/L	0.8	ug/L	50.0	<0.8 ug/L	108	50-140			



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## Certificate of Analysis

### Final Report

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 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy VA

Date Issued: April 11, 2024 14:43  
 Project Number: 4260177  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0345 - SW5030B-MS

##### Matrix Spike (BHD0345-MS1)

Source: 24D0364-01

Prepared & Analyzed: 04/09/2024

Isopropylbenzene	52.7 ug/L	1	ug/L	50.0	<1 ug/L	105	75-125			
m+p-Xylenes	108 ug/L	2	ug/L	100	<2 ug/L	108	75-130			
Methylene chloride	43.1 ug/L	4	ug/L	50.0	<4 ug/L	86.3	55-140			
Methyl-t-butyl ether (MTBE)	41.5 ug/L	1	ug/L	50.0	<1 ug/L	83.1	65-125			
Naphthalene	51.2 ug/L	1	ug/L	50.0	<1 ug/L	102	55-140			
n-Butylbenzene	58.8 ug/L	1	ug/L	50.0	<1 ug/L	118	70-135			
n-Propylbenzene	54.8 ug/L	1	ug/L	50.0	<1 ug/L	110	70-130			
o-Xylene	53.3 ug/L	1	ug/L	50.0	<1 ug/L	107	80-120			
sec-Butylbenzene	61.0 ug/L	1	ug/L	50.0	<1 ug/L	122	70-125			
Styrene	42.0 ug/L	1	ug/L	50.0	<1 ug/L	84.1	65-135			
tert-Butylbenzene	56.0 ug/L	1	ug/L	50.0	<1 ug/L	112	70-130			
Tetrachloroethylene (PCE)	57.2 ug/L	1	ug/L	50.0	<1 ug/L	114	51-231			
Toluene	50.7 ug/L	1	ug/L	50.0	<1 ug/L	101	75-120			
trans-1,2-Dichloroethylene	46.9 ug/L	1	ug/L	50.0	<1 ug/L	93.8	60-140			
trans-1,3-Dichloropropene	57.1 ug/L	1	ug/L	50.0	<1 ug/L	114	55-140			
Trichloroethylene	53.2 ug/L	1	ug/L	50.0	<1 ug/L	106	70-125			
Trichlorofluoromethane	52.4 ug/L	1	ug/L	50.0	<1 ug/L	105	60-145			
Vinyl chloride	44.7 ug/L	0.5	ug/L	50.0	<0.5 ug/L	89.3	50-145			
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Surr: 1,2-Dichloroethane-d4 (Surr)	55.5		ug/L	50.0	ug/L	111	70-120			
Surr: 4-Bromofluorobenzene (Surr)	52.1		ug/L	50.0	ug/L	104	75-120			
Surr: Dibromofluoromethane (Surr)	46.4		ug/L	50.0	ug/L	92.7	70-130			
Surr: Toluene-d8 (Surr)	49.6		ug/L	50.0	ug/L	99.1	70-130			

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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B	Date Issued:	April 11, 2024 14:43
	Lorton VA, 22079	Project Number:	4260177
Submitted To:	Shanna Hryvniak	Purchase Order:	4260177-001
Client Site I.D.:	Coopers Cove Rd, Hardy VA		

### Micro-extractables by GC/ECD - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0334 - SW8011

##### Blank (BHD0334-BLK1)

Prepared &amp; Analyzed: 04/09/2024

1,2-Dibromoethane (EDB)	<0.010 ug/L	0.010	ug/L						
1,2,3-Trichloropropane	<0.010 ug/L	0.010	ug/L						
1,2-Dibromo-3-chloropropane (DBCP)	<0.010 ug/L	0.010	ug/L						

##### LCS (BHD0334-BS1)

Prepared &amp; Analyzed: 04/09/2024

1,2-Dibromoethane (EDB)	0.282 ug/L	0.010	ug/L	0.250 ug/L	113	65-135			
1,2,3-Trichloropropane	0.278 ug/L	0.010	ug/L	0.250 ug/L	111	65-135			
1,2-Dibromo-3-chloropropane (DBCP)	0.287 ug/L	0.010	ug/L	0.250 ug/L	115	65-135			

##### Matrix Spike (BHD0334-MS1)

Source: 24D0209-03

Prepared &amp; Analyzed: 04/09/2024

1,2-Dibromoethane (EDB)	0.206 ug/L	0.010	ug/L	0.252 <0.010 ug/L	81.5	65-135			
1,2,3-Trichloropropane	0.264 ug/L	0.010	ug/L	0.252 <0.010 ug/L	105	65-135			
1,2-Dibromo-3-chloropropane (DBCP)	0.207 ug/L	0.010	ug/L	0.252 <0.010 ug/L	82.0	65-135			

##### Matrix Spike Dup (BHD0334-MSD1)

Source: 24D0209-03

Prepared &amp; Analyzed: 04/09/2024

1,2-Dibromoethane (EDB)	0.217 ug/L	0.010	ug/L	0.253 <0.010 ug/L	85.8	65-135	5.63	20	
1,2,3-Trichloropropane	0.249 ug/L	0.010	ug/L	0.253 <0.010 ug/L	98.2	65-135	5.86	20	
1,2-Dibromo-3-chloropropane (DBCP)	0.215 ug/L	0.010	ug/L	0.253 <0.010 ug/L	84.9	65-135	4.00	20	

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

### Certified Analyses included in this Report

Analyte	Certifications
<b>SW8011 in Non-Potable Water</b>	
1,2-Dibromoethane (EDB)	VELAP,NCDEQ
1,2,3-Trichloropropane	VELAP,NCDEQ
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ
<b>SW8260D in Non-Potable Water</b>	
1,1,1,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,1-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromoethane (EDB)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,3,5-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,4-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
2,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
2-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
2-Hexanone (MBK)	VELAP,NCDEQ,PADEP,WVDEP
4-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Isopropyltoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Methyl-2-pentanone (MIBK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Bromobenzene	VELAP,NCDEQ,PADEP,WVDEP
Bromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromodichloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromoform	VELAP,NCDEQ,PADEP,WVDEP

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

### Certified Analyses included in this Report

Analyte	Certifications
Bromomethane	VELAP,NCDEQ,PADEP,WVDEP
Carbon disulfide	VELAP,NCDEQ,PADEP,WVDEP
Carbon tetrachloride	VELAP,NCDEQ,PADEP,WVDEP
Chlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
Chloroethane	VELAP,NCDEQ,PADEP,WVDEP
Chloroform	VELAP,NCDEQ,PADEP,WVDEP
Chloromethane	VELAP,NCDEQ,PADEP,WVDEP
cis-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
cis-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Dibromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Dibromomethane	VELAP,NCDEQ,PADEP,WVDEP
Dichlorodifluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Di-isopropyl ether (DIPE)	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Hexachlorobutadiene	VELAP,NCDEQ,PADEP,WVDEP
Iodomethane	VELAP,NCDEQ,PADEP,WVDEP
Isopropylbenzene	VELAP,NCDEQ,PADEP,WVDEP
m+p-Xylenes	VELAP,NCDEQ,PADEP,WVDEP
Methylene chloride	VELAP,NCDEQ,PADEP,WVDEP
Methyl-t-butyl ether (MTBE)	VELAP,NCDEQ,PADEP,WVDEP
Naphthalene	VELAP,NCDEQ,PADEP,WVDEP
n-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
n-Propylbenzene	VELAP,NCDEQ,PADEP,WVDEP
o-Xylene	VELAP,NCDEQ,PADEP,WVDEP
sec-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Styrene	VELAP,NCDEQ,PADEP,WVDEP
tert-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Tetrachloroethylene (PCE)	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Trichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
Trichlorofluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Vinyl acetate	VELAP,NCDEQ,PADEP,WVDEP
Vinyl chloride	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2024
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
SCDHEC	South Carolina Dept of Health and Environmental	93016	06/14/2024
TXCEQ	Texas Comm on Environmental Quality #T104704	T104704576	05/31/2024
VELAP	NELAP-Virginia Certificate #12806	460021	06/14/2024
WVDEP	West Virginia DEP	350	11/30/2024



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## Certificate of Analysis

### *Final Report*

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

### Summary of Data Qualifiers

B Blank contamination. The recorded result is associated with a contaminated blank.

L LCS recovery is outside of established acceptance limits

RPD Relative Percent Difference

Qual Qualifiers

-RE Denotes sample was re-analyzed

D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

## CHAIN OF CUSTODY

COMPANY NAME: <i>Tote/Environmental Concepts</i>		INVOICE TO: <i>same</i>		PROJECT NAME/Quote #: <i>Coopers Cove Rd</i>	
CONTACT: <i>Shanna Hryniak</i>		INVOICE CONTACT: <i>Shanna Hryniak</i>		SITE NAME: <i>Coopers Cove Rd, Hardy VA</i>	
ADDRESS: <i>8387 Terminal Rd, Lorton, VA</i>		INVOICE ADDRESS:		PROJECT NUMBER: <i>4260177</i>	
PHONE #: <i>804-389-7983</i>		INVOICE PHONE #:		P.O. #: <i>4260177-001</i>	
FAX #: <i>N/A</i>		EMAIL: <i>shryniak</i>		Pretreatment Program: <i>No</i>	
Is sample for compliance reporting? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Regulatory State: <i>VA</i>		Is sample from a chlorinated supply? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	
SAMPLER NAME (PRINT): <i>David C. Drakey</i>		SAMPLER SIGNATURE: <i>[Signature]</i>		Turn Around Time: Circle 10 <input checked="" type="radio"/> 5 Days or <input type="radio"/> Day(s)	
Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids O=Organic A=Air WP=Wipe O=Other					
Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol					
COMMENTS: <i>"DEQ State Lead Rates"</i>					
PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)					
CLIENT SAMPLE I.D.					
1) 1430 Coopers Cove Rd	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time
2)					
3) 5274 Palmetto Bluff	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time
4)					
5) 5390 Palmetto Bluff	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time
6)					
7) Trip Blank	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time
8)					
9)					
10)					
RELINQUISHED: <i>[Signature]</i>	DATE / TIME: <i>4/5/24 2:30</i>	RECEIVED: <i>[Signature]</i>	DATE / TIME: <i>4/5/24 12:00</i>	QC Data Package	LAB USE ONLY Therm ID: <i>277</i> COOLER TEMP <i>2.6</i> °C
REINQUISHED: <i>[Signature]</i>	DATE / TIME: <i>4/5/24 2:30</i>	RECEIVED: <i>[Signature]</i>	DATE / TIME: <i>4-5-24 12:00</i>	Level III <input type="checkbox"/>	Received on ice? <input checked="" type="checkbox"/> (Y/N)
REINQUISHED: <i>[Signature]</i>	DATE / TIME: <i>4/5/24 2:30</i>	RECEIVED: <i>[Signature]</i>	DATE / TIME: <i>4-5-24 12:00</i>	Level IV <input type="checkbox"/>	
TEC-Springfield 24D0364 Coopers Cove - State Lead					
Recd: 04/05/2024 Due: 04/12/2024					





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 11, 2024 14:43
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy VA	Purchase Order:	4260177-001

## Sample Conditions Checklist

Samples Received at:	2.60°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	No
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	Yes
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes



**Attachment E**

**Laboratory Analytical Report (4/10/2024)**



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## Certificate of Analysis

*Final Report*

Laboratory Order ID 24D0682

Client Name: Total Environmental Concepts-Lorton  
8382 Terminal Rd, Bay B

Date Received: April 11, 2024 11:36

Date Issued: April 18, 2024 11:14

Lorton, VA 22079

Project Number: 4260177

Submitted To: Shanna Hryvniak

Purchase Order: 4260177-001

Client Site I.D.: Coopers Cove Rd, Hardy, VA

Enclosed are the results of analyses for samples received by the laboratory on 04/11/2024 11:36. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads 'Ted Soyars'.

Ted Soyars  
Technical Director

### End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

This report shall not be reproduced except in full without the expressed and written approval of an authorized representative of Enthalpy Analytical.



TNI Accredited  
VELAP ID 460021



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### Certificate of Analysis

*Final Report*

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

#### ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 24D0682

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
2250 Coopers Cove Rd	24D0682-01	Ground Water	04/10/2024 10:30	04/11/2024 11:36
1609 Coopers Cove Rd	24D0682-02	Ground Water	04/10/2024 11:10	04/11/2024 11:36
1850 Coopers Cove Rd	24D0682-03	Ground Water	04/10/2024 13:30	04/11/2024 11:36
2237 Coopers Cove Rd	24D0682-04	Ground Water	04/10/2024 14:45	04/11/2024 11:36
Trip Blank	24D0682-05	Non-Potable Water	02/07/2024 15:10	04/11/2024 11:36



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

#### Analytical Results

Sample I.D. 2250 Coopers Cove Rd Laboratory Sample ID: 24D0682-01  
 Grab Date/Time: 04/10/2024 10:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	04/12/24 17:35	04/12/24 17:35	RJB
1,1,1-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,1,2,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	04/12/24 17:35	04/12/24 17:35	RJB
1,1,2-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,1-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,1-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,1-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,2,3-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,2,3-Trichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,2,4-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,2,4-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,2-Dibromoethane (EDB)	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,2-Dichlorobenzene	01	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:35	04/12/24 17:35	RJB
1,2-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,2-Dichloropropane	01	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:35	04/12/24 17:35	RJB
1,3,5-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,3-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,3-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
1,4-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
2,2-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
2-Butanone (MEK)	01	SW8260D	<10.0 ug/L		10.0	1	04/12/24 17:35	04/12/24 17:35	RJB
2-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
2-Hexanone (MBK)	01	SW8260D	<5.00 ug/L		5.00	1	04/12/24 17:35	04/12/24 17:35	RJB
4-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

#### Analytical Results

Sample I.D. 2250 Coopers Cove Rd Laboratory Sample ID: 24D0682-01  
 Grab Date/Time: 04/10/2024 10:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
4-Methyl-2-pentanone (MIBK)	01	SW8260D	<5.00 ug/L		5.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Acetone	01	SW8260D	<10.0 ug/L		10.0	1	04/12/24 17:35	04/12/24 17:35	RJB
Benzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Bromobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Bromochloromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Bromodichloromethane	01	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:35	04/12/24 17:35	RJB
Bromoform	01	SW8260D	<1.00 ug/L	C	1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Bromomethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Carbon disulfide	01	SW8260D	<10.0 ug/L		10.0	1	04/12/24 17:35	04/12/24 17:35	RJB
Carbon tetrachloride	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Chlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Chloroethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Chloroform	01	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:35	04/12/24 17:35	RJB
Chloromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
cis-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
cis-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Dibromochloromethane	01	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:35	04/12/24 17:35	RJB
Dibromomethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Dichlorodifluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Di-isopropyl ether (DIPE)	01	SW8260D	<5.00 ug/L		5.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Ethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Hexachlorobutadiene	01	SW8260D	<0.80 ug/L		0.80	1	04/12/24 17:35	04/12/24 17:35	RJB
Iodomethane	01	SW8260D	<10.0 ug/L	C	10.0	1	04/12/24 17:35	04/12/24 17:35	RJB
Isopropylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
m+p-Xylenes	01	SW8260D	<2.00 ug/L		2.00	1	04/12/24 17:35	04/12/24 17:35	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. 2250 Coopers Cove Rd Laboratory Sample ID: 24D0682-01  
 Grab Date/Time: 04/10/2024 10:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	01	SW8260D	<4.00 ug/L		4.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Methyl-t-butyl ether (MTBE)	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Naphthalene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
n-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
n-Propylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
o-Xylene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
sec-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Styrene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
tert-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Tetrachloroethylene (PCE)	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Toluene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
trans-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
trans-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Trichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Trichlorofluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Vinyl acetate	01	SW8260D	<10.0 ug/L		10.0	1	04/12/24 17:35	04/12/24 17:35	RJB
Vinyl chloride	01	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:35	04/12/24 17:35	RJB
Xylenes, Total	01	SW8260D	<3.00 ug/L		3.00	1	04/12/24 17:35	04/12/24 17:35	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	01	SW8260D	104 %		70-120		04/12/24 17:35	04/12/24 17:35	RJB
Surr: 4-Bromofluorobenzene (Surr)	01	SW8260D	98.8 %		75-120		04/12/24 17:35	04/12/24 17:35	RJB
Surr: Dibromofluoromethane (Surr)	01	SW8260D	109 %		70-130		04/12/24 17:35	04/12/24 17:35	RJB
Surr: Toluene-d8 (Surr)	01	SW8260D	96.8 %		70-130		04/12/24 17:35	04/12/24 17:35	RJB

### Micro-extractables by GC/ECD



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## Certificate of Analysis

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 8382 Terminal Rd, Bay B  
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 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. 2250 Coopers Cove Rd Laboratory Sample ID: 24D0682-01  
 Grab Date/Time: 04/10/2024 10:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	01	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/15/24 23:25	ATG
1,2,3-Trichloropropane	01	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/15/24 23:25	ATG
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/15/24 23:25	ATG





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 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

#### Analytical Results

Sample I.D. 1609 Coopers Cove Rd Laboratory Sample ID: 24D0682-02  
 Grab Date/Time: 04/10/2024 11:10  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	04/12/24 17:58	04/12/24 17:58	RJB
1,1,1-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,1,2,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	04/12/24 17:58	04/12/24 17:58	RJB
1,1,2-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,1-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,1-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,1-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,2,3-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,2,3-Trichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,2,4-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,2,4-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,2-Dibromoethane (EDB)	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,2-Dichlorobenzene	02	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:58	04/12/24 17:58	RJB
1,2-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,2-Dichloropropane	02	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:58	04/12/24 17:58	RJB
1,3,5-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,3-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,3-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
1,4-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
2,2-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
2-Butanone (MEK)	02	SW8260D	<10.0 ug/L		10.0	1	04/12/24 17:58	04/12/24 17:58	RJB
2-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
2-Hexanone (MBK)	02	SW8260D	<5.00 ug/L		5.00	1	04/12/24 17:58	04/12/24 17:58	RJB
4-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. 1609 Coopers Cove Rd Laboratory Sample ID: 24D0682-02  
 Grab Date/Time: 04/10/2024 11:10  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
4-Methyl-2-pentanone (MIBK)	02	SW8260D	<5.00 ug/L		5.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Acetone	02	SW8260D	<10.0 ug/L		10.0	1	04/12/24 17:58	04/12/24 17:58	RJB
Benzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Bromobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Bromochloromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Bromodichloromethane	02	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:58	04/12/24 17:58	RJB
Bromoform	02	SW8260D	<1.00 ug/L	C	1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Bromomethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Carbon disulfide	02	SW8260D	<10.0 ug/L		10.0	1	04/12/24 17:58	04/12/24 17:58	RJB
Carbon tetrachloride	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Chlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Chloroethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Chloroform	02	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:58	04/12/24 17:58	RJB
Chloromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
cis-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
cis-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Dibromochloromethane	02	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:58	04/12/24 17:58	RJB
Dibromomethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Dichlorodifluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Di-isopropyl ether (DIPE)	02	SW8260D	<5.00 ug/L		5.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Ethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Hexachlorobutadiene	02	SW8260D	<0.80 ug/L		0.80	1	04/12/24 17:58	04/12/24 17:58	RJB
Iodomethane	02	SW8260D	<10.0 ug/L	C	10.0	1	04/12/24 17:58	04/12/24 17:58	RJB
Isopropylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
m+p-Xylenes	02	SW8260D	<2.00 ug/L		2.00	1	04/12/24 17:58	04/12/24 17:58	RJB



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## Certificate of Analysis

### Final Report

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 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. 1609 Coopers Cove Rd Laboratory Sample ID: 24D0682-02  
 Grab Date/Time: 04/10/2024 11:10  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	02	SW8260D	<4.00 ug/L		4.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Methyl-t-butyl ether (MTBE)	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Naphthalene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
n-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
n-Propylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
o-Xylene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
sec-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Styrene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
tert-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Tetrachloroethylene (PCE)	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Toluene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
trans-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
trans-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Trichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Trichlorofluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Vinyl acetate	02	SW8260D	<10.0 ug/L		10.0	1	04/12/24 17:58	04/12/24 17:58	RJB
Vinyl chloride	02	SW8260D	<0.50 ug/L		0.50	1	04/12/24 17:58	04/12/24 17:58	RJB
Xylenes, Total	02	SW8260D	<3.00 ug/L		3.00	1	04/12/24 17:58	04/12/24 17:58	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	02	SW8260D	103 %		70-120		04/12/24 17:58	04/12/24 17:58	RJB
Surr: 4-Bromofluorobenzene (Surr)	02	SW8260D	102 %		75-120		04/12/24 17:58	04/12/24 17:58	RJB
Surr: Dibromofluoromethane (Surr)	02	SW8260D	107 %		70-130		04/12/24 17:58	04/12/24 17:58	RJB
Surr: Toluene-d8 (Surr)	02	SW8260D	99.3 %		70-130		04/12/24 17:58	04/12/24 17:58	RJB

### Micro-extractables by GC/ECD



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Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. 1609 Coopers Cove Rd Laboratory Sample ID: 24D0682-02

Grab Date/Time: 04/10/2024 11:10

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	02	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/15/24 23:47	ATG
1,2,3-Trichloropropane	02	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/15/24 23:47	ATG
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/15/24 23:47	ATG



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 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

#### Analytical Results

Sample I.D. 1850 Coopers Cove Rd Laboratory Sample ID: 24D0682-03  
 Grab Date/Time: 04/10/2024 13:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	04/12/24 18:21	04/12/24 18:21	RJB
1,1,1-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,1,2,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	04/12/24 18:21	04/12/24 18:21	RJB
1,1,2-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,1-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,1-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,1-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,2,3-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,2,3-Trichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,2,4-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,2,4-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,2-Dibromoethane (EDB)	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,2-Dichlorobenzene	03	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:21	04/12/24 18:21	RJB
1,2-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,2-Dichloropropane	03	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:21	04/12/24 18:21	RJB
1,3,5-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,3-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,3-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
1,4-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
2,2-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
2-Butanone (MEK)	03	SW8260D	<10.0 ug/L		10.0	1	04/12/24 18:21	04/12/24 18:21	RJB
2-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
2-Hexanone (MBK)	03	SW8260D	<5.00 ug/L		5.00	1	04/12/24 18:21	04/12/24 18:21	RJB
4-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

#### Analytical Results

Sample I.D. 1850 Coopers Cove Rd Laboratory Sample ID: 24D0682-03  
 Grab Date/Time: 04/10/2024 13:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
4-Methyl-2-pentanone (MIBK)	03	SW8260D	<5.00 ug/L		5.00	1	04/12/24 18:21	04/12/24 18:21	RJB
<b>Acetone</b>	03	SW8260D	<b>15.9 ug/L</b>		10.0	1	04/12/24 18:21	04/12/24 18:21	RJB
Benzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Bromobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Bromochloromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Bromodichloromethane	03	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:21	04/12/24 18:21	RJB
Bromoform	03	SW8260D	<1.00 ug/L	C	1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Bromomethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Carbon disulfide	03	SW8260D	<10.0 ug/L		10.0	1	04/12/24 18:21	04/12/24 18:21	RJB
Carbon tetrachloride	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Chlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Chloroethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Chloroform	03	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:21	04/12/24 18:21	RJB
Chloromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
cis-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
cis-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Dibromochloromethane	03	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:21	04/12/24 18:21	RJB
Dibromomethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Dichlorodifluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Di-isopropyl ether (DIPE)	03	SW8260D	<5.00 ug/L		5.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Ethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Hexachlorobutadiene	03	SW8260D	<0.80 ug/L		0.80	1	04/12/24 18:21	04/12/24 18:21	RJB
Iodomethane	03	SW8260D	<10.0 ug/L	C	10.0	1	04/12/24 18:21	04/12/24 18:21	RJB
Isopropylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
m+p-Xylenes	03	SW8260D	<2.00 ug/L		2.00	1	04/12/24 18:21	04/12/24 18:21	RJB



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## Certificate of Analysis

### Final Report

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 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. 1850 Coopers Cove Rd Laboratory Sample ID: 24D0682-03

Grab Date/Time: 04/10/2024 13:30

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	03	SW8260D	<4.00 ug/L		4.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Methyl-t-butyl ether (MTBE)	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Naphthalene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
n-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
n-Propylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
o-Xylene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
sec-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Styrene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
tert-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Tetrachloroethylene (PCE)	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Toluene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
trans-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
trans-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Trichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Trichlorofluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Vinyl acetate	03	SW8260D	<10.0 ug/L		10.0	1	04/12/24 18:21	04/12/24 18:21	RJB
Vinyl chloride	03	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:21	04/12/24 18:21	RJB
Xylenes, Total	03	SW8260D	<3.00 ug/L		3.00	1	04/12/24 18:21	04/12/24 18:21	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	03	SW8260D	108 %		70-120		04/12/24 18:21	04/12/24 18:21	RJB
Surr: 4-Bromofluorobenzene (Surr)	03	SW8260D	102 %		75-120		04/12/24 18:21	04/12/24 18:21	RJB
Surr: Dibromofluoromethane (Surr)	03	SW8260D	107 %		70-130		04/12/24 18:21	04/12/24 18:21	RJB
Surr: Toluene-d8 (Surr)	03	SW8260D	101 %		70-130		04/12/24 18:21	04/12/24 18:21	RJB

### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. 1850 Coopers Cove Rd Laboratory Sample ID: 24D0682-03  
 Grab Date/Time: 04/10/2024 13:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	03	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/16/24 00:09	ATG
1,2,3-Trichloropropane	03	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/16/24 00:09	ATG
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/16/24 00:09	ATG





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0682

#### Analytical Results

Sample I.D. 2237 Coopers Cove Rd	Laboratory Sample ID: 24D0682-04
Grab Date/Time: 04/10/2024 14:45	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	04	SW8260D	<0.40 ug/L		0.40	1	04/12/24 18:44	04/12/24 18:44	RJB
1,1,1-Trichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,1,2,2-Tetrachloroethane	04	SW8260D	<0.40 ug/L		0.40	1	04/12/24 18:44	04/12/24 18:44	RJB
1,1,2-Trichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,1-Dichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,1-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,1-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,2,3-Trichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,2,3-Trichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,2,4-Trichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,2,4-Trimethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,2-Dibromo-3-chloropropane (DBCP)	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,2-Dibromoethane (EDB)	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,2-Dichlorobenzene	04	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:44	04/12/24 18:44	RJB
1,2-Dichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,2-Dichloropropane	04	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:44	04/12/24 18:44	RJB
1,3,5-Trimethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,3-Dichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,3-Dichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
1,4-Dichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
2,2-Dichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
2-Butanone (MEK)	04	SW8260D	<10.0 ug/L		10.0	1	04/12/24 18:44	04/12/24 18:44	RJB
2-Chlorotoluene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
2-Hexanone (MBK)	04	SW8260D	<5.00 ug/L		5.00	1	04/12/24 18:44	04/12/24 18:44	RJB
4-Chlorotoluene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
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 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. 2237 Coopers Cove Rd Laboratory Sample ID: 24D0682-04  
 Grab Date/Time: 04/10/2024 14:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
4-Methyl-2-pentanone (MIBK)	04	SW8260D	<5.00 ug/L		5.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Acetone	04	SW8260D	<10.0 ug/L		10.0	1	04/12/24 18:44	04/12/24 18:44	RJB
Benzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Bromobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Bromochloromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Bromodichloromethane	04	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:44	04/12/24 18:44	RJB
Bromoform	04	SW8260D	<1.00 ug/L	C	1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Bromomethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Carbon disulfide	04	SW8260D	<10.0 ug/L		10.0	1	04/12/24 18:44	04/12/24 18:44	RJB
Carbon tetrachloride	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Chlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Chloroethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Chloroform	04	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:44	04/12/24 18:44	RJB
Chloromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
cis-1,2-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
cis-1,3-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Dibromochloromethane	04	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:44	04/12/24 18:44	RJB
Dibromomethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Dichlorodifluoromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Di-isopropyl ether (DIPE)	04	SW8260D	<5.00 ug/L		5.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Ethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Hexachlorobutadiene	04	SW8260D	<0.80 ug/L		0.80	1	04/12/24 18:44	04/12/24 18:44	RJB
Iodomethane	04	SW8260D	<10.0 ug/L	C	10.0	1	04/12/24 18:44	04/12/24 18:44	RJB
Isopropylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
m+p-Xylenes	04	SW8260D	<2.00 ug/L		2.00	1	04/12/24 18:44	04/12/24 18:44	RJB



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## Certificate of Analysis

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Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. 2237 Coopers Cove Rd Laboratory Sample ID: 24D0682-04  
 Grab Date/Time: 04/10/2024 14:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	04	SW8260D	<4.00 ug/L		4.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Methyl-t-butyl ether (MTBE)	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Naphthalene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
n-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
n-Propylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
o-Xylene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
sec-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Styrene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
tert-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Tetrachloroethylene (PCE)	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Toluene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
trans-1,2-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
trans-1,3-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Trichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Trichlorofluoromethane	04	SW8260D	<1.00 ug/L		1.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Vinyl acetate	04	SW8260D	<10.0 ug/L		10.0	1	04/12/24 18:44	04/12/24 18:44	RJB
Vinyl chloride	04	SW8260D	<0.50 ug/L		0.50	1	04/12/24 18:44	04/12/24 18:44	RJB
Xylenes, Total	04	SW8260D	<3.00 ug/L		3.00	1	04/12/24 18:44	04/12/24 18:44	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	04	SW8260D	98.0 %		70-120		04/12/24 18:44	04/12/24 18:44	RJB
Surr: 4-Bromofluorobenzene (Surr)	04	SW8260D	102 %		75-120		04/12/24 18:44	04/12/24 18:44	RJB
Surr: Dibromofluoromethane (Surr)	04	SW8260D	104 %		70-130		04/12/24 18:44	04/12/24 18:44	RJB
Surr: Toluene-d8 (Surr)	04	SW8260D	97.3 %		70-130		04/12/24 18:44	04/12/24 18:44	RJB

### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. 2237 Coopers Cove Rd Laboratory Sample ID: 24D0682-04  
 Grab Date/Time: 04/10/2024 14:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	04	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/16/24 00:30	ATG
1,2,3-Trichloropropane	04	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/16/24 00:30	ATG
1,2-Dibromo-3-chloropropane (DBCP)	04	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/16/24 00:30	ATG



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0682

**Analytical Results**

Sample I.D. Trip Blank	Laboratory Sample ID: 24D0682-05
Grab Date/Time: 02/07/2024 15:10	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	05	SW8260D	<0.40 ug/L		0.40	1	04/12/24 16:02	04/12/24 16:02	RJB
1,1,1-Trichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,1,2,2-Tetrachloroethane	05	SW8260D	<0.40 ug/L		0.40	1	04/12/24 16:02	04/12/24 16:02	RJB
1,1,2-Trichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,1-Dichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,1-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,1-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,2,3-Trichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,2,3-Trichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,2,4-Trichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,2,4-Trimethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,2-Dibromo-3-chloropropane (DBCP)	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,2-Dibromoethane (EDB)	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,2-Dichlorobenzene	05	SW8260D	<0.50 ug/L		0.50	1	04/12/24 16:02	04/12/24 16:02	RJB
1,2-Dichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,2-Dichloropropane	05	SW8260D	<0.50 ug/L		0.50	1	04/12/24 16:02	04/12/24 16:02	RJB
1,3,5-Trimethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,3-Dichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,3-Dichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
1,4-Dichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
2,2-Dichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
2-Butanone (MEK)	05	SW8260D	<10.0 ug/L		10.0	1	04/12/24 16:02	04/12/24 16:02	RJB
2-Chlorotoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
2-Hexanone (MBK)	05	SW8260D	<5.00 ug/L		5.00	1	04/12/24 16:02	04/12/24 16:02	RJB
4-Chlorotoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

#### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24D0682-05  
 Grab Date/Time: 02/07/2024 15:10  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
4-Methyl-2-pentanone (MIBK)	05	SW8260D	<5.00 ug/L		5.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Acetone	05	SW8260D	<10.0 ug/L		10.0	1	04/12/24 16:02	04/12/24 16:02	RJB
Benzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Bromobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Bromochloromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Bromodichloromethane	05	SW8260D	<0.50 ug/L		0.50	1	04/12/24 16:02	04/12/24 16:02	RJB
Bromoform	05	SW8260D	<1.00 ug/L	C	1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Bromomethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Carbon disulfide	05	SW8260D	<10.0 ug/L		10.0	1	04/12/24 16:02	04/12/24 16:02	RJB
Carbon tetrachloride	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Chlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Chloroethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Chloroform	05	SW8260D	<0.50 ug/L		0.50	1	04/12/24 16:02	04/12/24 16:02	RJB
Chloromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
cis-1,2-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
cis-1,3-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Dibromochloromethane	05	SW8260D	<0.50 ug/L		0.50	1	04/12/24 16:02	04/12/24 16:02	RJB
Dibromomethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Dichlorodifluoromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Di-isopropyl ether (DIPE)	05	SW8260D	<5.00 ug/L		5.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Ethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Hexachlorobutadiene	05	SW8260D	<0.80 ug/L		0.80	1	04/12/24 16:02	04/12/24 16:02	RJB
Iodomethane	05	SW8260D	<10.0 ug/L	C	10.0	1	04/12/24 16:02	04/12/24 16:02	RJB
Isopropylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
m+p-Xylenes	05	SW8260D	<2.00 ug/L		2.00	1	04/12/24 16:02	04/12/24 16:02	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24D0682

### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24D0682-05  
 Grab Date/Time: 02/07/2024 15:10  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	05	SW8260D	<4.00 ug/L		4.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Methyl-t-butyl ether (MTBE)	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Naphthalene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
n-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
n-Propylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
o-Xylene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
sec-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Styrene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
tert-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Tetrachloroethylene (PCE)	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Toluene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
trans-1,2-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
trans-1,3-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Trichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Trichlorofluoromethane	05	SW8260D	<1.00 ug/L		1.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Vinyl acetate	05	SW8260D	<10.0 ug/L		10.0	1	04/12/24 16:02	04/12/24 16:02	RJB
Vinyl chloride	05	SW8260D	<0.50 ug/L		0.50	1	04/12/24 16:02	04/12/24 16:02	RJB
Xylenes, Total	05	SW8260D	<3.00 ug/L		3.00	1	04/12/24 16:02	04/12/24 16:02	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	05	SW8260D	109 %		70-120		04/12/24 16:02	04/12/24 16:02	RJB
Surr: 4-Bromofluorobenzene (Surr)	05	SW8260D	102 %		75-120		04/12/24 16:02	04/12/24 16:02	RJB
Surr: Dibromofluoromethane (Surr)	05	SW8260D	109 %		70-130		04/12/24 16:02	04/12/24 16:02	RJB
Surr: Toluene-d8 (Surr)	05	SW8260D	100 %		70-130		04/12/24 16:02	04/12/24 16:02	RJB

### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

Laboratory Order ID: 24D0682

#### Analytical Results

Sample I.D. Trip Blank	Laboratory Sample ID: 24D0682-05
Grab Date/Time: 02/07/2024 15:10	
Field Residual CI:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	05	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/16/24 00:52	ATG
1,2,3-Trichloropropane	05	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/16/24 00:52	ATG
1,2-Dibromo-3-chloropropane (DBCP)	05	SW8011	<0.010 ug/L		0.010	1	04/15/24 12:00	04/16/24 00:52	ATG

#### Analytical Summary

##### Administrative

##### Preparation Method:

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Preparation Method: SW5030B-MS</b>					
24D0682-01	5.00 mL / 5.00 mL	SW8260D	BHD0515	SHD0509	AC40182
24D0682-02	5.00 mL / 5.00 mL	SW8260D	BHD0515	SHD0509	AC40182
24D0682-03	5.00 mL / 5.00 mL	SW8260D	BHD0515	SHD0509	AC40182
24D0682-04	5.00 mL / 5.00 mL	SW8260D	BHD0515	SHD0509	AC40182
24D0682-05	5.00 mL / 5.00 mL	SW8260D	BHD0515	SHD0509	AC40182

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Preparation Method: SW8011</b>					
24D0682-01	59.1 mL / 2.00 mL	SW8011	BHD0552	SHD0658	AD40200
24D0682-02	60.3 mL / 2.00 mL	SW8011	BHD0552	SHD0658	AD40200
24D0682-03	59.6 mL / 2.00 mL	SW8011	BHD0552	SHD0658	AD40200
24D0682-04	59.5 mL / 2.00 mL	SW8011	BHD0552	SHD0658	AD40200
24D0682-05	60.0 mL / 2.00 mL	SW8011	BHD0552	SHD0658	AD40200





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>			<b>Preparation Method:</b>	<b>SW5030B-MS</b>	
BHD0515-BLK1	5.00 mL / 5.00 mL	SW8260D	BHD0515	SHD0509	AC40182
BHD0515-BS1	5.00 mL / 5.00 mL	SW8260D	BHD0515	SHD0509	AC40182
BHD0515-MS1	5.00 mL / 5.00 mL	SW8260D	BHD0515	SHD0509	AC40182
BHD0515-MSD1	5.00 mL / 5.00 mL	SW8260D	BHD0515	SHD0509	AC40182
Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Micro-extractables by GC/ECD</b>			<b>Preparation Method:</b>	<b>SW8011</b>	
BHD0552-BLK1	60.0 mL / 2.00 mL	SW8011	BHD0552	SHD0658	AD40200
BHD0552-BS1	60.0 mL / 2.00 mL	SW8011	BHD0552	SHD0658	AD40200
BHD0552-MS1	59.4 mL / 2.00 mL	SW8011	BHD0552	SHD0658	AD40200
BHD0552-MSD1	59.5 mL / 2.00 mL	SW8011	BHD0552	SHD0658	AD40200

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0515 - SW5030B-MS

#### Blank (BHD0515-BLK1)

Prepared &amp; Analyzed: 04/12/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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**Batch BHD0515 - SW5030B-MS**
**Blank (BHD0515-BLK1)**

Prepared &amp; Analyzed: 04/12/2024

Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							
Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	<0.50 ug/L	0.50	ug/L							
Chloromethane	<1.00 ug/L	1.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							
Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: April 18, 2024 11:14  
 8382 Terminal Rd, Bay B Project Number: 4260177  
 Lorton VA, 22079 Purchase Order: 4260177-001  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0515 - SW5030B-MS

##### Blank (BHD0515-BLK1)

Prepared & Analyzed: 04/12/2024

trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							
Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
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Surr: 1,2-Dichloroethane-d4 (Surr)	50.2		ug/L	50.0		100	70-120			
Surr: 4-Bromofluorobenzene (Surr)	50.4		ug/L	50.0		101	75-120			
Surr: Dibromofluoromethane (Surr)	51.5		ug/L	50.0		103	70-130			
Surr: Toluene-d8 (Surr)	48.4		ug/L	50.0		96.9	70-130			

##### LCS (BHD0515-BS1)

Prepared & Analyzed: 04/12/2024

1,1,1,2-Tetrachloroethane	42.5 ug/L	0.4	ug/L	50.0	ug/L	85.0	80-130			
1,1,1-Trichloroethane	51.8 ug/L	1	ug/L	50.0	ug/L	104	65-130			
1,1,2,2-Tetrachloroethane	48.6 ug/L	0.4	ug/L	50.0	ug/L	97.1	65-130			
1,1,2-Trichloroethane	49.6 ug/L	1	ug/L	50.0	ug/L	99.1	75-125			
1,1-Dichloroethane	44.9 ug/L	1	ug/L	50.0	ug/L	89.9	70-135			
1,1-Dichloroethylene	48.5 ug/L	1	ug/L	50.0	ug/L	97.1	70-130			
1,1-Dichloropropene	48.3 ug/L	1	ug/L	50.0	ug/L	96.6	75-135			
1,2,3-Trichlorobenzene	51.1 ug/L	1	ug/L	50.0	ug/L	102	55-140			
1,2,3-Trichloropropane	47.6 ug/L	1	ug/L	50.0	ug/L	95.1	75-125			
1,2,4-Trichlorobenzene	48.7 ug/L	1	ug/L	50.0	ug/L	97.4	65-135			
1,2,4-Trimethylbenzene	47.7 ug/L	1	ug/L	50.0	ug/L	95.4	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	51.2 ug/L	1	ug/L	50.0	ug/L	102	50-130			
1,2-Dibromoethane (EDB)	44.2 ug/L	1	ug/L	50.0	ug/L	88.3	80-120			
1,2-Dichlorobenzene	49.0 ug/L	0.5	ug/L	50.0	ug/L	97.9	70-120			
1,2-Dichloroethane	41.1 ug/L	1	ug/L	50.0	ug/L	82.2	70-130			
1,2-Dichloropropane	47.8 ug/L	0.5	ug/L	50.0	ug/L	95.7	75-125			
1,3,5-Trimethylbenzene	47.1 ug/L	1	ug/L	50.0	ug/L	94.2	75-125			
1,3-Dichlorobenzene	48.6 ug/L	1	ug/L	50.0	ug/L	97.2	75-125			
1,3-Dichloropropane	46.8 ug/L	1	ug/L	50.0	ug/L	93.6	75-125			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0515 - SW5030B-MS

#### LCS (BHD0515-BS1)

Prepared & Analyzed: 04/12/2024

1,4-Dichlorobenzene	47.1 ug/L	1	ug/L	50.0	ug/L	94.2	75-125		
2,2-Dichloropropane	60.8 ug/L	1	ug/L	50.0	ug/L	122	70-135		
2-Butanone (MEK)	51.0 ug/L	10	ug/L	50.0	ug/L	102	30-150		
2-Chlorotoluene	48.9 ug/L	1	ug/L	50.0	ug/L	97.8	75-125		
2-Hexanone (MBK)	51.2 ug/L	5	ug/L	50.0	ug/L	102	55-130		
4-Chlorotoluene	47.7 ug/L	1	ug/L	50.0	ug/L	95.4	75-130		
4-Isopropyltoluene	50.7 ug/L	1	ug/L	50.0	ug/L	101	75-130		
4-Methyl-2-pentanone (MIBK)	55.3 ug/L	5	ug/L	50.0	ug/L	111	60-135		
Acetone	46.1 ug/L	10	ug/L	50.0	ug/L	92.1	40-140		
Benzene	47.0 ug/L	1	ug/L	50.0	ug/L	94.0	80-120		
Bromobenzene	46.0 ug/L	1	ug/L	50.0	ug/L	92.0	75-125		
Bromochloromethane	47.4 ug/L	1	ug/L	50.0	ug/L	94.8	65-130		
Bromodichloromethane	43.5 ug/L	0.5	ug/L	50.0	ug/L	87.0	75-120		
Bromoform	38.7 ug/L	1	ug/L	50.0	ug/L	77.4	70-130		
Bromomethane	36.6 ug/L	1	ug/L	50.0	ug/L	73.1	30-145		
Carbon disulfide	67.9 ug/L	10	ug/L	50.0	ug/L	136	35-160		
Carbon tetrachloride	51.8 ug/L	1	ug/L	50.0	ug/L	104	65-140		
Chlorobenzene	48.4 ug/L	1	ug/L	50.0	ug/L	96.8	80-120		
Chloroethane	49.8 ug/L	1	ug/L	50.0	ug/L	99.6	60-135		
Chloroform	46.6 ug/L	0.5	ug/L	50.0	ug/L	93.2	65-135		
Chloromethane	49.2 ug/L	1	ug/L	50.0	ug/L	98.3	40-125		
cis-1,2-Dichloroethylene	44.9 ug/L	1	ug/L	50.0	ug/L	89.8	70-125		
cis-1,3-Dichloropropene	51.0 ug/L	1	ug/L	50.0	ug/L	102	70-130		
Dibromochloromethane	41.7 ug/L	0.5	ug/L	50.0	ug/L	83.4	60-135		
Dibromomethane	49.0 ug/L	1	ug/L	50.0	ug/L	97.9	75-125		
Dichlorodifluoromethane	44.5 ug/L	1	ug/L	50.0	ug/L	89.0	30-155		
Ethylbenzene	47.5 ug/L	1	ug/L	50.0	ug/L	95.0	75-125		
Hexachlorobutadiene	56.5 ug/L	0.8	ug/L	50.0	ug/L	113	50-140		
Isopropylbenzene	47.4 ug/L	1	ug/L	50.0	ug/L	94.9	75-125		
m+p-Xylenes	95.8 ug/L	2	ug/L	100	ug/L	95.8	75-130		
Methylene chloride	43.6 ug/L	4	ug/L	50.0	ug/L	87.3	55-140		

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B	Date Issued:	April 18, 2024 11:14
		Project Number:	4260177
		Purchase Order:	4260177-001
Submitted To:	Lorton VA, 22079 Shanna Hryvniak		
Client Site I.D.:	Coopers Cove Rd, Hardy, VA		

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0515 - SW5030B-MS

##### LCS (BHD0515-BS1)

Prepared &amp; Analyzed: 04/12/2024

Methyl-t-butyl ether (MTBE)	44.0 ug/L	1	ug/L	50.0	ug/L	88.1	65-125		
Naphthalene	47.9 ug/L	1	ug/L	50.0	ug/L	95.7	55-140		
n-Butylbenzene	53.2 ug/L	1	ug/L	50.0	ug/L	106	70-135		
n-Propylbenzene	50.4 ug/L	1	ug/L	50.0	ug/L	101	70-130		
o-Xylene	48.9 ug/L	1	ug/L	50.0	ug/L	97.8	80-120		
sec-Butylbenzene	55.1 ug/L	1	ug/L	50.0	ug/L	110	70-125		
Styrene	46.0 ug/L	1	ug/L	50.0	ug/L	92.0	65-135		
tert-Butylbenzene	49.7 ug/L	1	ug/L	50.0	ug/L	99.3	70-130		
Tetrachloroethylene (PCE)	51.1 ug/L	1	ug/L	50.0	ug/L	102	45-150		
Toluene	47.2 ug/L	1	ug/L	50.0	ug/L	94.4	75-120		
trans-1,2-Dichloroethylene	40.5 ug/L	1	ug/L	50.0	ug/L	81.0	60-140		
trans-1,3-Dichloropropene	54.5 ug/L	1	ug/L	50.0	ug/L	109	55-140		
Trichloroethylene	48.7 ug/L	1	ug/L	50.0	ug/L	97.4	70-125		
Trichlorofluoromethane	49.0 ug/L	1	ug/L	50.0	ug/L	97.9	60-145		
Vinyl chloride	52.0 ug/L	0.5	ug/L	50.0	ug/L	104	50-145		
<hr style="border-top: 1px dashed #000;"/>									
Surr: 1,2-Dichloroethane-d4 (Surr)	48.5		ug/L	50.0	ug/L	97.0	70-120		
Surr: 4-Bromofluorobenzene (Surr)	51.7		ug/L	50.0	ug/L	103	75-120		
Surr: Dibromofluoromethane (Surr)	50.4		ug/L	50.0	ug/L	101	70-130		
Surr: Toluene-d8 (Surr)	48.7		ug/L	50.0	ug/L	97.5	70-130		

##### Matrix Spike (BHD0515-MS1)

Source: 24D0699-05

Prepared &amp; Analyzed: 04/12/2024

1,1,1,2-Tetrachloroethane	41.8 ug/L	0.4	ug/L	50.0	<0.4 ug/L	83.5	80-130		
1,1,1-Trichloroethane	54.1 ug/L	1	ug/L	50.0	<1 ug/L	108	65-130		
1,1,2,2-Tetrachloroethane	48.1 ug/L	0.4	ug/L	50.0	<0.4 ug/L	96.1	65-130		
1,1,2-Trichloroethane	49.7 ug/L	1	ug/L	50.0	<1 ug/L	99.3	75-125		
1,1-Dichloroethane	48.1 ug/L	1	ug/L	50.0	<1 ug/L	96.3	70-135		
1,1-Dichloroethylene	48.7 ug/L	1	ug/L	50.0	<1 ug/L	97.5	50-145		
1,1-Dichloropropene	49.6 ug/L	1	ug/L	50.0	<1 ug/L	99.2	75-135		
1,2,3-Trichlorobenzene	48.4 ug/L	1	ug/L	50.0	<1 ug/L	96.8	55-140		
1,2,3-Trichloropropane	49.2 ug/L	1	ug/L	50.0	<1 ug/L	98.4	75-125		
1,2,4-Trichlorobenzene	48.0 ug/L	1	ug/L	50.0	<1 ug/L	96.1	65-135		
1,2,4-Trimethylbenzene	46.4 ug/L	1	ug/L	50.0	<1 ug/L	92.8	75-130		

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0515 - SW5030B-MS

##### Matrix Spike (BHD0515-MS1)

Source: 24D0699-05

Prepared &amp; Analyzed: 04/12/2024

1,2-Dibromo-3-chloropropane (DBCP)	48.4 ug/L	1	ug/L	50.0	<1 ug/L	96.8	50-130			
1,2-Dibromoethane (EDB)	43.4 ug/L	1	ug/L	50.0	<1 ug/L	86.8	80-120			
1,2-Dichlorobenzene	48.2 ug/L	0.5	ug/L	50.0	<0.5 ug/L	96.4	70-120			
1,2-Dichloroethane	42.8 ug/L	1	ug/L	50.0	<1 ug/L	85.5	70-130			
1,2-Dichloropropane	49.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	98.0	75-125			
1,3,5-Trimethylbenzene	45.2 ug/L	1	ug/L	50.0	<1 ug/L	90.5	75-124			
1,3-Dichlorobenzene	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.7	75-125			
1,3-Dichloropropane	47.6 ug/L	1	ug/L	50.0	<1 ug/L	95.1	75-125			
1,4-Dichlorobenzene	46.1 ug/L	1	ug/L	50.0	<1 ug/L	92.2	75-125			
2,2-Dichloropropane	55.9 ug/L	1	ug/L	50.0	<1 ug/L	112	70-135			
2-Butanone (MEK)	53.1 ug/L	10	ug/L	50.0	<10 ug/L	106	30-150			
2-Chlorotoluene	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.7	75-125			
2-Hexanone (MBK)	48.0 ug/L	5	ug/L	50.0	<5 ug/L	96.0	55-130			
4-Chlorotoluene	46.0 ug/L	1	ug/L	50.0	<1 ug/L	92.0	75-130			
4-Isopropyltoluene	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.6	75-130			
4-Methyl-2-pentanone (MIBK)	53.1 ug/L	5	ug/L	50.0	<5 ug/L	106	60-135			
Acetone	46.6 ug/L	10	ug/L	50.0	<10 ug/L	93.3	40-140			
Benzene	48.9 ug/L	1	ug/L	50.0	<1 ug/L	97.7	80-120			
Bromobenzene	45.7 ug/L	1	ug/L	50.0	<1 ug/L	91.3	75-125			
Bromochloromethane	49.8 ug/L	1	ug/L	50.0	<1 ug/L	99.6	65-130			
Bromodichloromethane	43.9 ug/L	0.5	ug/L	50.0	<0.5 ug/L	87.8	75-136			
Bromoform	37.5 ug/L	1	ug/L	50.0	<1 ug/L	75.0	70-130			
Bromomethane	36.5 ug/L	1	ug/L	50.0	<1 ug/L	73.1	30-145			
Carbon disulfide	68.6 ug/L	10	ug/L	50.0	<10 ug/L	137	35-160			
Carbon tetrachloride	51.1 ug/L	1	ug/L	50.0	<1 ug/L	102	65-140			
Chlorobenzene	47.1 ug/L	1	ug/L	50.0	<1 ug/L	94.2	80-120			
Chloroethane	51.2 ug/L	1	ug/L	50.0	<1 ug/L	102	60-135			
Chloroform	49.9 ug/L	0.5	ug/L	50.0	<0.5 ug/L	99.8	65-135			
Chloromethane	52.5 ug/L	1	ug/L	50.0	<1 ug/L	105	40-125			
cis-1,2-Dichloroethylene	45.9 ug/L	1	ug/L	50.0	<1 ug/L	91.9	70-125			
cis-1,3-Dichloropropene	50.2 ug/L	1	ug/L	50.0	<1 ug/L	100	47-136			



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

Date Issued: April 18, 2024 11:14  
 Project Number: 4260177  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0515 - SW5030B-MS

##### Matrix Spike (BHD0515-MS1)

Source: 24D0699-05

Prepared & Analyzed: 04/12/2024

Dibromochloromethane	42.7 ug/L	0.5	ug/L	50.0	<0.5 ug/L	85.3	60-135			
Dibromomethane	49.5 ug/L	1	ug/L	50.0	<1 ug/L	99.0	75-125			
Dichlorodifluoromethane	46.7 ug/L	1	ug/L	50.0	<1 ug/L	93.4	30-155			
Ethylbenzene	45.8 ug/L	1	ug/L	50.0	<1 ug/L	91.6	75-125			
Hexachlorobutadiene	55.7 ug/L	0.8	ug/L	50.0	<0.8 ug/L	111	50-140			
Isopropylbenzene	46.6 ug/L	1	ug/L	50.0	<1 ug/L	93.2	75-125			
m+p-Xylenes	92.8 ug/L	2	ug/L	100	<2 ug/L	92.8	75-130			
Methylene chloride	43.8 ug/L	4	ug/L	50.0	<4 ug/L	87.5	55-140			
Methyl-t-butyl ether (MTBE)	45.1 ug/L	1	ug/L	50.0	<1 ug/L	90.2	65-125			
Naphthalene	46.4 ug/L	1	ug/L	50.0	<1 ug/L	92.9	55-140			
n-Butylbenzene	50.8 ug/L	1	ug/L	50.0	<1 ug/L	102	70-135			
n-Propylbenzene	48.4 ug/L	1	ug/L	50.0	<1 ug/L	96.8	70-130			
o-Xylene	48.0 ug/L	1	ug/L	50.0	<1 ug/L	95.9	80-120			
sec-Butylbenzene	53.4 ug/L	1	ug/L	50.0	<1 ug/L	107	70-125			
Styrene	45.1 ug/L	1	ug/L	50.0	<1 ug/L	90.1	65-135			
tert-Butylbenzene	48.7 ug/L	1	ug/L	50.0	<1 ug/L	97.4	70-130			
Tetrachloroethylene (PCE)	48.9 ug/L	1	ug/L	50.0	<1 ug/L	97.7	51-231			
Toluene	47.7 ug/L	1	ug/L	50.0	<1 ug/L	95.4	75-120			
trans-1,2-Dichloroethylene	42.7 ug/L	1	ug/L	50.0	<1 ug/L	85.5	60-140			
trans-1,3-Dichloropropene	52.6 ug/L	1	ug/L	50.0	<1 ug/L	105	55-140			
Trichloroethylene	49.2 ug/L	1	ug/L	50.0	<1 ug/L	98.4	70-125			
Trichlorofluoromethane	49.6 ug/L	1	ug/L	50.0	<1 ug/L	99.2	60-145			
Vinyl chloride	52.9 ug/L	0.5	ug/L	50.0	<0.5 ug/L	106	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	49.7		ug/L	50.0	ug/L	99.5	70-120			
Surr: 4-Bromofluorobenzene (Surr)	51.7		ug/L	50.0	ug/L	103	75-120			
Surr: Dibromofluoromethane (Surr)	54.0		ug/L	50.0	ug/L	108	70-130			
Surr: Toluene-d8 (Surr)	49.0		ug/L	50.0	ug/L	98.0	70-130			





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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: April 18, 2024 11:14  
 8382 Terminal Rd, Bay B Project Number: 4260177  
 Lorton VA, 22079 Purchase Order: 4260177-001  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd, Hardy, VA

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0515 - SW5030B-MS

#### Matrix Spike Dup (BHD0515-MSD1)

Source: 24D0699-05

Prepared & Analyzed: 04/12/2024

1,1,1,2-Tetrachloroethane	41.9 ug/L	0.4	ug/L	50.0	<0.4 ug/L	83.8	80-130	0.335	30	
1,1,1-Trichloroethane	53.1 ug/L	1	ug/L	50.0	<1 ug/L	106	65-130	1.90	30	
1,1,2,2-Tetrachloroethane	49.8 ug/L	0.4	ug/L	50.0	<0.4 ug/L	99.6	65-130	3.58	30	
1,1,2-Trichloroethane	50.8 ug/L	1	ug/L	50.0	<1 ug/L	102	75-125	2.21	30	
1,1-Dichloroethane	47.5 ug/L	1	ug/L	50.0	<1 ug/L	95.1	70-135	1.25	30	
1,1-Dichloroethylene	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	50-145	3.35	30	
1,1-Dichloropropene	49.1 ug/L	1	ug/L	50.0	<1 ug/L	98.1	75-135	1.09	30	
1,2,3-Trichlorobenzene	53.5 ug/L	1	ug/L	50.0	<1 ug/L	107	55-140	9.97	30	
1,2,3-Trichloropropane	49.1 ug/L	1	ug/L	50.0	<1 ug/L	98.3	75-125	0.183	30	
1,2,4-Trichlorobenzene	49.8 ug/L	1	ug/L	50.0	<1 ug/L	99.5	65-135	3.54	30	
1,2,4-Trimethylbenzene	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.8	75-130	2.09	30	
1,2-Dibromo-3-chloropropane (DBCP)	50.1 ug/L	1	ug/L	50.0	<1 ug/L	100	50-130	3.45	30	
1,2-Dibromoethane (EDB)	44.7 ug/L	1	ug/L	50.0	<1 ug/L	89.3	80-120	2.88	30	
1,2-Dichlorobenzene	50.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	100	70-120	3.73	30	
1,2-Dichloroethane	42.9 ug/L	1	ug/L	50.0	<1 ug/L	85.8	70-130	0.280	30	
1,2-Dichloropropane	49.4 ug/L	0.5	ug/L	50.0	<0.5 ug/L	98.9	75-125	0.955	30	
1,3,5-Trimethylbenzene	46.6 ug/L	1	ug/L	50.0	<1 ug/L	93.2	75-124	3.01	30	
1,3-Dichlorobenzene	49.2 ug/L	1	ug/L	50.0	<1 ug/L	98.3	75-125	3.71	30	
1,3-Dichloropropane	49.8 ug/L	1	ug/L	50.0	<1 ug/L	99.6	75-125	4.62	30	
1,4-Dichlorobenzene	47.7 ug/L	1	ug/L	50.0	<1 ug/L	95.4	75-125	3.33	30	
2,2-Dichloropropane	55.1 ug/L	1	ug/L	50.0	<1 ug/L	110	70-135	1.35	30	
2-Butanone (MEK)	46.9 ug/L	10	ug/L	50.0	<10 ug/L	93.9	30-150	12.4	30	
2-Chlorotoluene	49.0 ug/L	1	ug/L	50.0	<1 ug/L	98.1	75-125	3.47	30	
2-Hexanone (MBK)	48.9 ug/L	5	ug/L	50.0	<5 ug/L	97.9	55-130	1.92	30	
4-Chlorotoluene	46.2 ug/L	1	ug/L	50.0	<1 ug/L	92.4	75-130	0.521	30	
4-Isopropyltoluene	50.0 ug/L	1	ug/L	50.0	<1 ug/L	100	75-130	1.47	30	
4-Methyl-2-pentanone (MIBK)	54.4 ug/L	5	ug/L	50.0	<5 ug/L	109	60-135	2.38	30	
Acetone	47.5 ug/L	10	ug/L	50.0	<10 ug/L	95.0	40-140	1.76	30	
Benzene	48.1 ug/L	1	ug/L	50.0	<1 ug/L	96.2	80-120	1.59	30	
Bromobenzene	46.7 ug/L	1	ug/L	50.0	<1 ug/L	93.5	75-125	2.32	30	
Bromochloromethane	48.8 ug/L	1	ug/L	50.0	<1 ug/L	97.6	65-130	2.05	30	

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0515 - SW5030B-MS

#### Matrix Spike Dup (BHD0515-MSD1)

Source: 24D0699-05

Prepared &amp; Analyzed: 04/12/2024

Bromodichloromethane	45.1 ug/L	0.5	ug/L	50.0	<0.5 ug/L	90.2	75-136	2.70	30
Bromoform	37.9 ug/L	1	ug/L	50.0	<1 ug/L	75.7	70-130	0.982	30
Bromomethane	37.6 ug/L	1	ug/L	50.0	<1 ug/L	75.2	30-145	2.94	30
Carbon disulfide	65.9 ug/L	10	ug/L	50.0	<10 ug/L	132	35-160	3.98	30
Carbon tetrachloride	52.4 ug/L	1	ug/L	50.0	<1 ug/L	105	65-140	2.53	30
Chlorobenzene	48.7 ug/L	1	ug/L	50.0	<1 ug/L	97.5	80-120	3.42	30
Chloroethane	53.7 ug/L	1	ug/L	50.0	<1 ug/L	107	60-135	4.82	30
Chloroform	49.7 ug/L	0.5	ug/L	50.0	<0.5 ug/L	99.4	65-135	0.382	30
Chloromethane	52.6 ug/L	1	ug/L	50.0	<1 ug/L	105	40-125	0.247	30
cis-1,2-Dichloroethylene	47.0 ug/L	1	ug/L	50.0	<1 ug/L	94.1	70-125	2.41	30
cis-1,3-Dichloropropene	51.6 ug/L	1	ug/L	50.0	<1 ug/L	103	47-136	2.69	30
Dibromochloromethane	43.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	87.6	60-135	2.64	30
Dibromomethane	50.7 ug/L	1	ug/L	50.0	<1 ug/L	101	75-125	2.30	30
Dichlorodifluoromethane	45.6 ug/L	1	ug/L	50.0	<1 ug/L	91.3	30-155	2.36	30
Ethylbenzene	46.2 ug/L	1	ug/L	50.0	<1 ug/L	92.5	75-125	0.913	30
Hexachlorobutadiene	55.4 ug/L	0.8	ug/L	50.0	<0.8 ug/L	111	50-140	0.414	30
Isopropylbenzene	47.2 ug/L	1	ug/L	50.0	<1 ug/L	94.4	75-125	1.26	30
m+p-Xylenes	91.6 ug/L	2	ug/L	100	<2 ug/L	91.6	75-130	1.31	30
Methylene chloride	44.8 ug/L	4	ug/L	50.0	<4 ug/L	89.6	55-140	2.39	30
Methyl-t-butyl ether (MTBE)	45.7 ug/L	1	ug/L	50.0	<1 ug/L	91.4	65-125	1.34	30
Naphthalene	51.5 ug/L	1	ug/L	50.0	<1 ug/L	103	55-140	10.2	30
n-Butylbenzene	51.8 ug/L	1	ug/L	50.0	<1 ug/L	104	70-135	1.97	30
n-Propylbenzene	49.9 ug/L	1	ug/L	50.0	<1 ug/L	99.8	70-130	3.09	30
o-Xylene	49.1 ug/L	1	ug/L	50.0	<1 ug/L	98.3	80-120	2.41	30
sec-Butylbenzene	54.8 ug/L	1	ug/L	50.0	<1 ug/L	110	70-125	2.70	30
Styrene	46.0 ug/L	1	ug/L	50.0	<1 ug/L	92.0	65-135	2.00	30
tert-Butylbenzene	50.1 ug/L	1	ug/L	50.0	<1 ug/L	100	70-130	2.85	30
Tetrachloroethylene (PCE)	48.6 ug/L	1	ug/L	50.0	<1 ug/L	97.3	51-231	0.472	30
Toluene	48.3 ug/L	1	ug/L	50.0	<1 ug/L	96.7	75-120	1.29	30
trans-1,2-Dichloroethylene	42.5 ug/L	1	ug/L	50.0	<1 ug/L	85.1	60-140	0.493	30
trans-1,3-Dichloropropene	54.6 ug/L	1	ug/L	50.0	<1 ug/L	109	55-140	3.92	30



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## Certificate of Analysis

### Final Report

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Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHD0515 - SW5030B-MS

#### Matrix Spike Dup (BHD0515-MSD1)

Source: 24D0699-05

Prepared & Analyzed: 04/12/2024

Trichloroethylene	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.7	70-125	0.304	30	
Trichlorofluoromethane	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.6	60-145	0.566	30	
Vinyl chloride	53.5 ug/L	0.5	ug/L	50.0	<0.5 ug/L	107	50-145	1.09	30	
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Surr: 1,2-Dichloroethane-d4 (Surr)	50.9		ug/L	50.0	ug/L	102	70-120			
Surr: 4-Bromofluorobenzene (Surr)	50.9		ug/L	50.0	ug/L	102	75-120			
Surr: Dibromofluoromethane (Surr)	52.8		ug/L	50.0	ug/L	106	70-130			
Surr: Toluene-d8 (Surr)	48.5		ug/L	50.0	ug/L	97.0	70-130			

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Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Micro-extractables by GC/ECD - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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**Batch BHD0552 - SW8011**
**Blank (BHD0552-BLK1)**

Prepared &amp; Analyzed: 04/15/2024

1,2-Dibromoethane (EDB)	<0.010 ug/L	0.010	ug/L						
1,2,3-Trichloropropane	<0.010 ug/L	0.010	ug/L						
1,2-Dibromo-3-chloropropane (DBCP)	<0.010 ug/L	0.010	ug/L						

**LCS (BHD0552-BS1)**

Prepared &amp; Analyzed: 04/15/2024

1,2-Dibromoethane (EDB)	0.282 ug/L	0.010	ug/L	0.250 ug/L	113	65-135			
1,2,3-Trichloropropane	0.247 ug/L	0.010	ug/L	0.250 ug/L	98.9	65-135			
1,2-Dibromo-3-chloropropane (DBCP)	0.270 ug/L	0.010	ug/L	0.250 ug/L	108	65-135			

**Matrix Spike (BHD0552-MS1)**

Source: 24D0619-05

Prepared &amp; Analyzed: 04/15/2024

1,2-Dibromoethane (EDB)	0.257 ug/L	0.010	ug/L	0.253 <0.010 ug/L	102	65-135			
1,2,3-Trichloropropane	0.228 ug/L	0.010	ug/L	0.253 <0.010 ug/L	90.4	65-135			
1,2-Dibromo-3-chloropropane (DBCP)	0.231 ug/L	0.010	ug/L	0.253 <0.010 ug/L	91.6	65-135			

**Matrix Spike Dup (BHD0552-MSD1)**

Source: 24D0619-05

Prepared &amp; Analyzed: 04/15/2024

1,2-Dibromoethane (EDB)	0.275 ug/L	0.010	ug/L	0.252 <0.010 ug/L	109	65-135	6.73	20	
1,2,3-Trichloropropane	0.241 ug/L	0.010	ug/L	0.252 <0.010 ug/L	95.4	65-135	5.20	20	
1,2-Dibromo-3-chloropropane (DBCP)	0.253 ug/L	0.010	ug/L	0.252 <0.010 ug/L	100	65-135	8.96	20	

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Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Certified Analyses included in this Report

Analyte	Certifications
<b>SW8011 in Non-Potable Water</b>	
1,2-Dibromoethane (EDB)	VELAP,NCDEQ
1,2,3-Trichloropropane	VELAP,NCDEQ
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ
<b>SW8260D in Non-Potable Water</b>	
1,1,1,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,1-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromoethane (EDB)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,3,5-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,4-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
2,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
2-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
2-Hexanone (MBK)	VELAP,NCDEQ,PADEP,WVDEP
4-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Isopropyltoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Methyl-2-pentanone (MIBK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Bromobenzene	VELAP,NCDEQ,PADEP,WVDEP
Bromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromodichloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromoform	VELAP,NCDEQ,PADEP,WVDEP

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
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Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Certified Analyses included in this Report

Analyte	Certifications
Bromomethane	VELAP,NCDEQ,PADEP,WVDEP
Carbon disulfide	VELAP,NCDEQ,PADEP,WVDEP
Carbon tetrachloride	VELAP,NCDEQ,PADEP,WVDEP
Chlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
Chloroethane	VELAP,NCDEQ,PADEP,WVDEP
Chloroform	VELAP,NCDEQ,PADEP,WVDEP
Chloromethane	VELAP,NCDEQ,PADEP,WVDEP
cis-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
cis-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Dibromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Dibromomethane	VELAP,NCDEQ,PADEP,WVDEP
Dichlorodifluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Di-isopropyl ether (DIPE)	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Hexachlorobutadiene	VELAP,NCDEQ,PADEP,WVDEP
Iodomethane	VELAP,NCDEQ,PADEP,WVDEP
Isopropylbenzene	VELAP,NCDEQ,PADEP,WVDEP
m+p-Xylenes	VELAP,NCDEQ,PADEP,WVDEP
Methylene chloride	VELAP,NCDEQ,PADEP,WVDEP
Methyl-t-butyl ether (MTBE)	VELAP,NCDEQ,PADEP,WVDEP
Naphthalene	VELAP,NCDEQ,PADEP,WVDEP
n-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
n-Propylbenzene	VELAP,NCDEQ,PADEP,WVDEP
o-Xylene	VELAP,NCDEQ,PADEP,WVDEP
sec-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Styrene	VELAP,NCDEQ,PADEP,WVDEP
tert-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Tetrachloroethylene (PCE)	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Trichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
Trichlorofluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Vinyl acetate	VELAP,NCDEQ,PADEP,WVDEP
Vinyl chloride	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP



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### Certificate of Analysis

*Final Report*

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8382 Terminal Rd, Bay B      Project Number: 4260177  
Lorton VA, 22079      Purchase Order: 4260177-001  
Submitted To: Shanna Hryvniak  
Client Site I.D.: Coopers Cove Rd, Hardy, VA

Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2024
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
SCDHEC	South Carolina Dept of Health and Environmental	93016	06/14/2024
TXCEQ	Texas Comm on Environmental Quality #T104704	T104704576	05/31/2024
VELAP	NELAP-Virginia Certificate #12806	460021	06/14/2024
WVDEP	West Virginia DEP	350	11/30/2024



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## Certificate of Analysis

### *Final Report*

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Summary of Data Qualifiers

C Continuing calibration verification response for this analyte is outside specifications.

RPD Relative Percent Difference

Qual Qualifiers

-RE Denotes sample was re-analyzed

D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.







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### Certificate of Analysis

#### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	April 18, 2024 11:14
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd, Hardy, VA	Purchase Order:	4260177-001

### Sample Conditions Checklist

Samples Received at:	4.80°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	No
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	Yes
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes

Trip Blank information per containers received.  
JNH 4/12/24 1535



## Appendix F

Laboratory Analytical Report (6/11/2024)



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## Certificate of Analysis

*Final Report*

Laboratory Order ID 24F0738

Client Name: Total Environmental Concepts-Lorton  
8382 Terminal Rd, Bay B

Date Received: June 12, 2024 13:16

Date Issued: June 18, 2024 17:21

Lorton, VA 22079

Project Number: 4260177

Submitted To: Shanna Hryvniak

Purchase Order: 4260177-001

Client Site I.D.: Coopers Cove Rd., Hardy VA

Enclosed are the results of analyses for samples received by the laboratory on 06/12/2024 13:16. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads 'Sarah R. Endsley'.

Sarah R. Endsley  
Laboratory Manager

### End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

This report shall not be reproduced except in full without the expressed and written approval of an authorized representative of Enthalpy Analytical.



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VELAP ID 460021



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton      Date Issued: June 18, 2024 17:21  
8382 Terminal Rd, Bay B      Project Number: 4260177  
Lorton VA, 22079      Purchase Order: 4260177-001  
Submitted To: Shanna Hryvniak  
Client Site I.D.: Coopers Cove Rd., Hardy VA

### ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 24F0738

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
920 Buckeye Lane	24F0738-01	Ground Water	06/11/2024 13:45	06/12/2024 13:16
5370 Palmetto Bluff Rd	24F0738-02	Ground Water	06/11/2024 14:30	06/12/2024 13:16
4567 Windy Gap Dr.	24F0738-03	Ground Water	06/11/2024 15:45	06/12/2024 13:16
Trip Blank	24F0738-05	Ground Water	04/01/2024 10:20	06/12/2024 13:16



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: June 18, 2024 17:21  
 8382 Terminal Rd, Bay B Project Number: 4260177  
 Lorton VA, 22079 Purchase Order: 4260177-001  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Laboratory Order ID: 24F0738

#### Analytical Results

Sample I.D. 920 Buckeye Lane Laboratory Sample ID: 24F0738-01  
 Grab Date/Time: 06/11/2024 13:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	06/13/24 17:19	06/13/24 17:19	RJB
1,1,1-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,1,2,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	06/13/24 17:19	06/13/24 17:19	RJB
1,1,2-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,1-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,1-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,1-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,2,3-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,2,3-Trichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,2,4-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,2,4-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8260D	<1.00 ug/L	C	1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,2-Dibromoethane (EDB)	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,2-Dichlorobenzene	01	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:19	06/13/24 17:19	RJB
1,2-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,2-Dichloropropane	01	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:19	06/13/24 17:19	RJB
1,3,5-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,3-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,3-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
1,4-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
2,2-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
2-Butanone (MEK)	01	SW8260D	<10.0 ug/L		10.0	1	06/13/24 17:19	06/13/24 17:19	RJB
2-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
2-Hexanone (MBK)	01	SW8260D	<5.00 ug/L		5.00	1	06/13/24 17:19	06/13/24 17:19	RJB
4-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0738

#### Analytical Results

Sample I.D. 920 Buckeye Lane Laboratory Sample ID: 24F0738-01  
 Grab Date/Time: 06/11/2024 13:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
4-Methyl-2-pentanone (MIBK)	01	SW8260D	<5.00 ug/L		5.00	1	06/13/24 17:19	06/13/24 17:19	RJB
<b>Acetone</b>	01	SW8260D	<b>16.5 ug/L</b>		10.0	1	06/13/24 17:19	06/13/24 17:19	RJB
Benzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Bromobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Bromochloromethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Bromodichloromethane	01	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:19	06/13/24 17:19	RJB
Bromoform	01	SW8260D	<1.00 ug/L	C	1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Bromomethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Carbon disulfide	01	SW8260D	<10.0 ug/L		10.0	1	06/13/24 17:19	06/13/24 17:19	RJB
Carbon tetrachloride	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Chlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Chloroethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Chloroform	01	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:19	06/13/24 17:19	RJB
Chloromethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
cis-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
cis-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Dibromochloromethane	01	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:19	06/13/24 17:19	RJB
Dibromomethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Dichlorodifluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Di-isopropyl ether (DIPE)	01	SW8260D	<5.00 ug/L		5.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Ethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Hexachlorobutadiene	01	SW8260D	<0.80 ug/L		0.80	1	06/13/24 17:19	06/13/24 17:19	RJB
Iodomethane	01	SW8260D	<10.0 ug/L		10.0	1	06/13/24 17:19	06/13/24 17:19	RJB
Isopropylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
m+p-Xylenes	01	SW8260D	<2.00 ug/L		2.00	1	06/13/24 17:19	06/13/24 17:19	RJB

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 18, 2024 17:21
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

**Laboratory Order ID: 24F0738**

**Analytical Results**

Sample I.D. 920 Buckeye Lane	Laboratory Sample ID: 24F0738-01
Grab Date/Time: 06/11/2024 13:45	
Field Residual CI:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	01	SW8260D	<4.00 ug/L		4.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Methyl-t-butyl ether (MTBE)	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Naphthalene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
n-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
n-Propylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
o-Xylene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
sec-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Styrene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
tert-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Tetrachloroethylene (PCE)	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Toluene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
trans-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
trans-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Trichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Trichlorofluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Vinyl acetate	01	SW8260D	<10.0 ug/L		10.0	1	06/13/24 17:19	06/13/24 17:19	RJB
Vinyl chloride	01	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:19	06/13/24 17:19	RJB
Xylenes, Total	01	SW8260D	<3.00 ug/L		3.00	1	06/13/24 17:19	06/13/24 17:19	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	01	SW8260D	112 %		70-120		06/13/24 17:19	06/13/24 17:19	RJB
Surr: 4-Bromofluorobenzene (Surr)	01	SW8260D	96.9 %		75-120		06/13/24 17:19	06/13/24 17:19	RJB
Surr: Dibromofluoromethane (Surr)	01	SW8260D	108 %		70-130		06/13/24 17:19	06/13/24 17:19	RJB
Surr: Toluene-d8 (Surr)	01	SW8260D	105 %		70-130		06/13/24 17:19	06/13/24 17:19	RJB

**Micro-extractables by GC/ECD**





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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0738

### Analytical Results

Sample I.D. 920 Buckeye Lane Laboratory Sample ID: 24F0738-01  
 Grab Date/Time: 06/11/2024 13:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	01	SW8011	<0.010 ug/L		0.010	1	06/17/24 08:45	06/17/24 22:00	ATG
1,2,3-Trichloropropane	01	SW8011	<0.010 ug/L		0.010	1	06/17/24 08:45	06/17/24 22:00	ATG
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8011	<0.010 ug/L		0.010	1	06/17/24 08:45	06/17/24 22:00	ATG



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0738

#### Analytical Results

Sample I.D. 5370 Palmetto Bluff Rd Laboratory Sample ID: 24F0738-02  
 Grab Date/Time: 06/11/2024 14:30  
 Field Residual CI: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
					<b>Sample Qualifier:</b>				<b>CI</b>
1,1,1,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	06/13/24 17:42	06/13/24 17:42	RJB
1,1,1-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,1,2,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	06/13/24 17:42	06/13/24 17:42	RJB
1,1,2-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,1-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,1-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,1-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,2,3-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,2,3-Trichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,2,4-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,2,4-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8260D	<1.00 ug/L	C	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,2-Dibromoethane (EDB)	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,2-Dichlorobenzene	02	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:42	06/13/24 17:42	RJB
1,2-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,2-Dichloropropane	02	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:42	06/13/24 17:42	RJB
1,3,5-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,3-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,3-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
1,4-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
2,2-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
2-Butanone (MEK)	02	SW8260D	<10.0 ug/L		10.0	1	06/13/24 17:42	06/13/24 17:42	RJB
2-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
2-Hexanone (MBK)	02	SW8260D	<5.00 ug/L		5.00	1	06/13/24 17:42	06/13/24 17:42	RJB
4-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0738

### Analytical Results

Sample I.D. 5370 Palmetto Bluff Rd Laboratory Sample ID: 24F0738-02  
 Grab Date/Time: 06/11/2024 14:30  
 Field Residual CI: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>				<b>Sample Qualifier:</b>		<b>CI</b>			
4-Isopropyltoluene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
4-Methyl-2-pentanone (MIBK)	02	SW8260D	<5.00 ug/L		5.00	1	06/13/24 17:42	06/13/24 17:42	RJB
<b>Acetone</b>	02	SW8260D	<b>10.3 ug/L</b>		10.0	1	06/13/24 17:42	06/13/24 17:42	RJB
Benzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Bromobenzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Bromochloromethane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Bromodichloromethane	02	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:42	06/13/24 17:42	RJB
Bromoform	02	SW8260D	<1.00 ug/L	C	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Bromomethane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Carbon disulfide	02	SW8260D	<10.0 ug/L		10.0	1	06/13/24 17:42	06/13/24 17:42	RJB
Carbon tetrachloride	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Chlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Chloroethane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Chloroform	02	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:42	06/13/24 17:42	RJB
Chloromethane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
cis-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
cis-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Dibromochloromethane	02	SW8260D	<0.50 ug/L		0.50	1	06/13/24 17:42	06/13/24 17:42	RJB
Dibromomethane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Dichlorodifluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Di-isopropyl ether (DIPE)	02	SW8260D	<5.00 ug/L		5.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Ethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
Hexachlorobutadiene	02	SW8260D	<0.80 ug/L		0.80	1	06/13/24 17:42	06/13/24 17:42	RJB
Iodomethane	02	SW8260D	<10.0 ug/L		10.0	1	06/13/24 17:42	06/13/24 17:42	RJB
Isopropylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	06/13/24 17:42	06/13/24 17:42	RJB
m+p-Xylenes	02	SW8260D	<2.00 ug/L		2.00	1	06/13/24 17:42	06/13/24 17:42	RJB

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 18, 2024 17:21
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

**Laboratory Order ID: 24F0738**

**Analytical Results**

<b>Sample I.D.</b> 5370 Palmetto Bluff Rd	<b>Laboratory Sample ID:</b> 24F0738-02
<b>Grab Date/Time:</b> 06/11/2024 14:30	
<b>Field Residual CI:</b>	<b>Field pH:</b>

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>				<b>Sample Qualifier:</b>		<b>CI</b>			
Methylene chloride	02	SW8260D	<4.00 ug/L	4.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
Methyl-t-butyl ether (MTBE)	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
Naphthalene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
n-Butylbenzene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
n-Propylbenzene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
o-Xylene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
sec-Butylbenzene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
Styrene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
tert-Butylbenzene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
Tetrachloroethylene (PCE)	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
Toluene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
trans-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
trans-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
Trichloroethylene	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
Trichlorofluoromethane	02	SW8260D	<1.00 ug/L	1.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
Vinyl acetate	02	SW8260D	<10.0 ug/L	10.0	1	06/13/24 17:42	06/13/24 17:42	RJB	
Vinyl chloride	02	SW8260D	<0.50 ug/L	0.50	1	06/13/24 17:42	06/13/24 17:42	RJB	
Xylenes, Total	02	SW8260D	<3.00 ug/L	3.00	1	06/13/24 17:42	06/13/24 17:42	RJB	
Surr: 1,2-Dichloroethane-d4 (Surr)	02	SW8260D	116 %	70-120		06/13/24 17:42	06/13/24 17:42	RJB	
Surr: 4-Bromofluorobenzene (Surr)	02	SW8260D	97.6 %	75-120		06/13/24 17:42	06/13/24 17:42	RJB	
Surr: Dibromofluoromethane (Surr)	02	SW8260D	110 %	70-130		06/13/24 17:42	06/13/24 17:42	RJB	
Surr: Toluene-d8 (Surr)	02	SW8260D	105 %	70-130		06/13/24 17:42	06/13/24 17:42	RJB	

**Micro-extractables by GC/ECD**



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0738

### Analytical Results

Sample I.D. 5370 Palmetto Bluff Rd Laboratory Sample ID: 24F0738-02  
 Grab Date/Time: 06/11/2024 14:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	02	SW8011	<0.010 ug/L		0.010	1	06/17/24 08:45	06/17/24 22:21	ATG
1,2,3-Trichloropropane	02	SW8011	<0.010 ug/L		0.010	1	06/17/24 08:45	06/17/24 22:21	ATG
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8011	<0.010 ug/L		0.010	1	06/17/24 08:45	06/17/24 22:21	ATG



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0738

### Analytical Results

Sample I.D. 4567 Windy Gap Dr.

Laboratory Sample ID: 24F0738-03

Grab Date/Time: 06/11/2024 15:45

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	06/13/24 18:06	06/13/24 18:06	RJB
1,1,1-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,1,2,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	06/13/24 18:06	06/13/24 18:06	RJB
1,1,2-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,1-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,1-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,1-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,2,3-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,2,3-Trichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,2,4-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,2,4-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8260D	<1.00 ug/L	C	1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,2-Dibromoethane (EDB)	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,2-Dichlorobenzene	03	SW8260D	<0.50 ug/L		0.50	1	06/13/24 18:06	06/13/24 18:06	RJB
1,2-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,2-Dichloropropane	03	SW8260D	<0.50 ug/L		0.50	1	06/13/24 18:06	06/13/24 18:06	RJB
1,3,5-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,3-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,3-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
1,4-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
2,2-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
2-Butanone (MEK)	03	SW8260D	<10.0 ug/L		10.0	1	06/13/24 18:06	06/13/24 18:06	RJB
2-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
2-Hexanone (MBK)	03	SW8260D	<5.00 ug/L		5.00	1	06/13/24 18:06	06/13/24 18:06	RJB
4-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0738

### Analytical Results

Sample I.D. 4567 Windy Gap Dr. Laboratory Sample ID: 24F0738-03  
 Grab Date/Time: 06/11/2024 15:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
4-Methyl-2-pentanone (MIBK)	03	SW8260D	<5.00 ug/L		5.00	1	06/13/24 18:06	06/13/24 18:06	RJB
<b>Acetone</b>	03	SW8260D	<b>12.1 ug/L</b>		10.0	1	06/13/24 18:06	06/13/24 18:06	RJB
Benzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Bromobenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Bromochloromethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Bromodichloromethane	03	SW8260D	<0.50 ug/L		0.50	1	06/13/24 18:06	06/13/24 18:06	RJB
Bromoform	03	SW8260D	<1.00 ug/L	C	1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Bromomethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Carbon disulfide	03	SW8260D	<10.0 ug/L		10.0	1	06/13/24 18:06	06/13/24 18:06	RJB
Carbon tetrachloride	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Chlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Chloroethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Chloroform	03	SW8260D	<0.50 ug/L		0.50	1	06/13/24 18:06	06/13/24 18:06	RJB
Chloromethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
cis-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
cis-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Dibromochloromethane	03	SW8260D	<0.50 ug/L		0.50	1	06/13/24 18:06	06/13/24 18:06	RJB
Dibromomethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Dichlorodifluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Di-isopropyl ether (DIPE)	03	SW8260D	<5.00 ug/L		5.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Ethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Hexachlorobutadiene	03	SW8260D	<0.80 ug/L		0.80	1	06/13/24 18:06	06/13/24 18:06	RJB
Iodomethane	03	SW8260D	<10.0 ug/L		10.0	1	06/13/24 18:06	06/13/24 18:06	RJB
Isopropylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
m+p-Xylenes	03	SW8260D	<2.00 ug/L		2.00	1	06/13/24 18:06	06/13/24 18:06	RJB



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 18, 2024 17:21
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

**Laboratory Order ID: 24F0738**

**Analytical Results**

Sample I.D. 4567 Windy Gap Dr.	Laboratory Sample ID: 24F0738-03
Grab Date/Time: 06/11/2024 15:45	
Field Residual CI:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	03	SW8260D	<4.00 ug/L		4.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Methyl-t-butyl ether (MTBE)	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Naphthalene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
n-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
n-Propylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
o-Xylene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
sec-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Styrene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
tert-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Tetrachloroethylene (PCE)	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Toluene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
trans-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
trans-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Trichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Trichlorofluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Vinyl acetate	03	SW8260D	<10.0 ug/L		10.0	1	06/13/24 18:06	06/13/24 18:06	RJB
Vinyl chloride	03	SW8260D	<0.50 ug/L		0.50	1	06/13/24 18:06	06/13/24 18:06	RJB
Xylenes, Total	03	SW8260D	<3.00 ug/L		3.00	1	06/13/24 18:06	06/13/24 18:06	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	03	SW8260D	118 %		70-120		06/13/24 18:06	06/13/24 18:06	RJB
Surr: 4-Bromofluorobenzene (Surr)	03	SW8260D	97.3 %		75-120		06/13/24 18:06	06/13/24 18:06	RJB
Surr: Dibromofluoromethane (Surr)	03	SW8260D	110 %		70-130		06/13/24 18:06	06/13/24 18:06	RJB
Surr: Toluene-d8 (Surr)	03	SW8260D	106 %		70-130		06/13/24 18:06	06/13/24 18:06	RJB

**Micro-extractables by GC/ECD**





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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0738

### Analytical Results

Sample I.D. 4567 Windy Gap Dr. Laboratory Sample ID: 24F0738-03  
 Grab Date/Time: 06/11/2024 15:45  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	03	SW8011	<0.010 ug/L		0.010	1	06/17/24 09:15	06/18/24 06:14	ATG
1,2,3-Trichloropropane	03	SW8011	<0.010 ug/L		0.010	1	06/17/24 09:15	06/18/24 06:14	ATG
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8011	<0.010 ug/L		0.010	1	06/17/24 09:15	06/18/24 06:14	ATG



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 18, 2024 17:21
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

Laboratory Order ID: 24F0738

**Analytical Results**

Sample I.D. Trip Blank	Laboratory Sample ID: 24F0738-05
Grab Date/Time: 04/01/2024 10:20	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	05	SW8260D	<0.40 ug/L		0.40	1	06/13/24 16:55	06/13/24 16:55	RJB
1,1,1-Trichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,1,2,2-Tetrachloroethane	05	SW8260D	<0.40 ug/L		0.40	1	06/13/24 16:55	06/13/24 16:55	RJB
1,1,2-Trichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,1-Dichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,1-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,1-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,2,3-Trichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,2,3-Trichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,2,4-Trichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,2,4-Trimethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,2-Dibromo-3-chloropropane (DBCP)	05	SW8260D	<1.00 ug/L	C	1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,2-Dibromoethane (EDB)	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,2-Dichlorobenzene	05	SW8260D	<0.50 ug/L		0.50	1	06/13/24 16:55	06/13/24 16:55	RJB
1,2-Dichloroethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,2-Dichloropropane	05	SW8260D	<0.50 ug/L		0.50	1	06/13/24 16:55	06/13/24 16:55	RJB
1,3,5-Trimethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,3-Dichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,3-Dichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
1,4-Dichlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
2,2-Dichloropropane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
2-Butanone (MEK)	05	SW8260D	<10.0 ug/L		10.0	1	06/13/24 16:55	06/13/24 16:55	RJB
2-Chlorotoluene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
2-Hexanone (MBK)	05	SW8260D	<5.00 ug/L		5.00	1	06/13/24 16:55	06/13/24 16:55	RJB
4-Chlorotoluene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0738

### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24F0738-05  
 Grab Date/Time: 04/01/2024 10:20  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
4-Methyl-2-pentanone (MIBK)	05	SW8260D	<5.00 ug/L		5.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Acetone	05	SW8260D	<10.0 ug/L		10.0	1	06/13/24 16:55	06/13/24 16:55	RJB
Benzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Bromobenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Bromochloromethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Bromodichloromethane	05	SW8260D	<0.50 ug/L		0.50	1	06/13/24 16:55	06/13/24 16:55	RJB
Bromoform	05	SW8260D	<1.00 ug/L	C	1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Bromomethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Carbon disulfide	05	SW8260D	<10.0 ug/L		10.0	1	06/13/24 16:55	06/13/24 16:55	RJB
Carbon tetrachloride	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Chlorobenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Chloroethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Chloroform	05	SW8260D	<0.50 ug/L		0.50	1	06/13/24 16:55	06/13/24 16:55	RJB
Chloromethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
cis-1,2-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
cis-1,3-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Dibromochloromethane	05	SW8260D	<0.50 ug/L		0.50	1	06/13/24 16:55	06/13/24 16:55	RJB
Dibromomethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Dichlorodifluoromethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Di-isopropyl ether (DIPE)	05	SW8260D	<5.00 ug/L		5.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Ethylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Hexachlorobutadiene	05	SW8260D	<0.80 ug/L		0.80	1	06/13/24 16:55	06/13/24 16:55	RJB
Iodomethane	05	SW8260D	<10.0 ug/L		10.0	1	06/13/24 16:55	06/13/24 16:55	RJB
Isopropylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
m+p-Xylenes	05	SW8260D	<2.00 ug/L		2.00	1	06/13/24 16:55	06/13/24 16:55	RJB



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 18, 2024 17:21
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

Laboratory Order ID: 24F0738

**Analytical Results**

Sample I.D. Trip Blank	Laboratory Sample ID: 24F0738-05
Grab Date/Time: 04/01/2024 10:20	
Field Residual Cl:	Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	05	SW8260D	<4.00 ug/L		4.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Methyl-t-butyl ether (MTBE)	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Naphthalene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
n-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
n-Propylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
o-Xylene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
sec-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Styrene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
tert-Butylbenzene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Tetrachloroethylene (PCE)	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Toluene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
trans-1,2-Dichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
trans-1,3-Dichloropropene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Trichloroethylene	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Trichlorofluoromethane	05	SW8260D	<1.00 ug/L		1.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Vinyl acetate	05	SW8260D	<10.0 ug/L		10.0	1	06/13/24 16:55	06/13/24 16:55	RJB
Vinyl chloride	05	SW8260D	<0.50 ug/L		0.50	1	06/13/24 16:55	06/13/24 16:55	RJB
Xylenes, Total	05	SW8260D	<3.00 ug/L		3.00	1	06/13/24 16:55	06/13/24 16:55	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	05	SW8260D	111 %		70-120		06/13/24 16:55	06/13/24 16:55	RJB
Surr: 4-Bromofluorobenzene (Surr)	05	SW8260D	98.0 %		75-120		06/13/24 16:55	06/13/24 16:55	RJB
Surr: Dibromofluoromethane (Surr)	05	SW8260D	109 %		70-130		06/13/24 16:55	06/13/24 16:55	RJB
Surr: Toluene-d8 (Surr)	05	SW8260D	106 %		70-130		06/13/24 16:55	06/13/24 16:55	RJB

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 18, 2024 17:21
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

### Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>		<b>Preparation Method: SW5030B-MS</b>			
24F0738-01	5.00 mL / 5.00 mL	SW8260D	BHF0496	SHF0464	AE40260
24F0738-02	5.00 mL / 5.00 mL	SW8260D	BHF0496	SHF0464	AE40260
24F0738-03	5.00 mL / 5.00 mL	SW8260D	BHF0496	SHF0464	AE40260
24F0738-05	5.00 mL / 5.00 mL	SW8260D	BHF0496	SHF0464	AE40260
<b>Micro-extractables by GC/ECD</b>		<b>Preparation Method: SW8011</b>			
24F0738-01	59.4 mL / 2.00 mL	SW8011	BHF0573	SHF0607	AF40250
24F0738-02	59.8 mL / 2.00 mL	SW8011	BHF0573	SHF0607	AF40250
<b>Micro-extractables by GC/ECD</b>		<b>Preparation Method: SW8011</b>			
24F0738-03	59.5 mL / 2.00 mL	SW8011	BHF0574	SHF0607	AF40250

## Certificate of Analysis

### Final Report

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Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

### QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>			<b>Preparation Method:</b>	<b>SW5030B-MS</b>	
BHF0496-BLK1	5.00 mL / 5.00 mL	SW8260D	BHF0496	SHF0464	AE40260
BHF0496-BS1	5.00 mL / 5.00 mL	SW8260D	BHF0496	SHF0464	AE40260
BHF0496-MS1	5.00 mL / 5.00 mL	SW8260D	BHF0496	SHF0464	AE40260
BHF0496-MSD1	5.00 mL / 5.00 mL	SW8260D	BHF0496	SHF0464	AE40260

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Micro-extractables by GC/ECD</b>			<b>Preparation Method:</b>	<b>SW8011</b>	
BHF0573-BLK1	60.0 mL / 2.00 mL	SW8011	BHF0573	SHF0607	AF40250
BHF0573-BS1	60.0 mL / 2.00 mL	SW8011	BHF0573	SHF0607	AF40250
BHF0573-MS1	59.7 mL / 2.00 mL	SW8011	BHF0573	SHF0607	AF40250
BHF0573-MSD1	58.9 mL / 2.00 mL	SW8011	BHF0573	SHF0607	AF40250
BHF0574-BLK1	60.0 mL / 2.00 mL	SW8011	BHF0574	SHF0607	AF40250
BHF0574-BS1	60.0 mL / 2.00 mL	SW8011	BHF0574	SHF0607	AF40250
BHF0574-MS1	59.2 mL / 2.00 mL	SW8011	BHF0574	SHF0607	AF40250
BHF0574-MSD1	59.2 mL / 2.00 mL	SW8011	BHF0574	SHF0607	AF40250



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## Certificate of Analysis

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 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0496 - SW5030B-MS

#### Blank (BHF0496-BLK1)

Prepared & Analyzed: 06/13/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							



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### Final Report

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Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0496 - SW5030B-MS

#### Blank (BHF0496-BLK1)

Prepared & Analyzed: 06/13/2024

Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							
Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	<0.50 ug/L	0.50	ug/L							
Chloromethane	<1.00 ug/L	1.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							
Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 18, 2024 17:21
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0496 - SW5030B-MS

##### Blank (BHF0496-BLK1)

Prepared & Analyzed: 06/13/2024

trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							
Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
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Surr: 1,2-Dichloroethane-d4 (Surr)	56.5		ug/L	50.0		113	70-120			
Surr: 4-Bromofluorobenzene (Surr)	49.3		ug/L	50.0		98.5	75-120			
Surr: Dibromofluoromethane (Surr)	53.7		ug/L	50.0		107	70-130			
Surr: Toluene-d8 (Surr)	52.2		ug/L	50.0		104	70-130			

##### LCS (BHF0496-BS1)

Prepared & Analyzed: 06/13/2024

1,1,1,2-Tetrachloroethane	49.8 ug/L	0.4	ug/L	50.0 ug/L		99.6	80-130			
1,1,1-Trichloroethane	56.4 ug/L	1	ug/L	50.0 ug/L		113	65-130			
1,1,2,2-Tetrachloroethane	56.7 ug/L	0.4	ug/L	50.0 ug/L		113	65-130			
1,1,2-Trichloroethane	56.7 ug/L	1	ug/L	50.0 ug/L		113	75-125			
1,1-Dichloroethane	71.2 ug/L	1	ug/L	50.0 ug/L		142	70-135			L
1,1-Dichloroethylene	60.0 ug/L	1	ug/L	50.0 ug/L		120	70-130			
1,1-Dichloropropene	64.4 ug/L	1	ug/L	50.0 ug/L		129	75-135			
1,2,3-Trichlorobenzene	55.4 ug/L	1	ug/L	50.0 ug/L		111	55-140			
1,2,3-Trichloropropane	56.2 ug/L	1	ug/L	50.0 ug/L		112	75-125			
1,2,4-Trichlorobenzene	54.7 ug/L	1	ug/L	50.0 ug/L		109	65-135			
1,2,4-Trimethylbenzene	63.4 ug/L	1	ug/L	50.0 ug/L		127	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	48.0 ug/L	1	ug/L	50.0 ug/L		96.0	50-130			
1,2-Dibromoethane (EDB)	53.0 ug/L	1	ug/L	50.0 ug/L		106	80-120			
1,2-Dichlorobenzene	56.5 ug/L	0.5	ug/L	50.0 ug/L		113	70-120			
1,2-Dichloroethane	55.5 ug/L	1	ug/L	50.0 ug/L		111	70-130			
1,2-Dichloropropane	61.8 ug/L	0.5	ug/L	50.0 ug/L		124	75-125			
1,3,5-Trimethylbenzene	60.4 ug/L	1	ug/L	50.0 ug/L		121	75-125			
1,3-Dichlorobenzene	56.5 ug/L	1	ug/L	50.0 ug/L		113	75-125			
1,3-Dichloropropane	58.9 ug/L	1	ug/L	50.0 ug/L		118	75-125			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 18, 2024 17:21
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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**Batch BHF0496 - SW5030B-MS**
**LCS (BHF0496-BS1)**

Prepared &amp; Analyzed: 06/13/2024

1,4-Dichlorobenzene	56.3 ug/L	1	ug/L	50.0	ug/L	113	75-125		
2,2-Dichloropropane	58.9 ug/L	1	ug/L	50.0	ug/L	118	70-135		
2-Butanone (MEK)	48.2 ug/L	10	ug/L	50.0	ug/L	96.4	30-150		
2-Chlorotoluene	54.6 ug/L	1	ug/L	50.0	ug/L	109	75-125		
2-Hexanone (MBK)	45.3 ug/L	5	ug/L	50.0	ug/L	90.6	55-130		
4-Chlorotoluene	55.8 ug/L	1	ug/L	50.0	ug/L	112	75-130		
4-Isopropyltoluene	64.0 ug/L	1	ug/L	50.0	ug/L	128	75-130		
4-Methyl-2-pentanone (MIBK)	46.3 ug/L	5	ug/L	50.0	ug/L	92.6	60-135		
Acetone	52.5 ug/L	10	ug/L	50.0	ug/L	105	40-140		
Benzene	62.7 ug/L	1	ug/L	50.0	ug/L	125	80-120		L
Bromobenzene	51.6 ug/L	1	ug/L	50.0	ug/L	103	75-125		
Bromochloromethane	57.8 ug/L	1	ug/L	50.0	ug/L	116	65-130		
Bromodichloromethane	53.7 ug/L	0.5	ug/L	50.0	ug/L	107	75-120		
Bromoform	45.5 ug/L	1	ug/L	50.0	ug/L	91.0	70-130		
Bromomethane	63.3 ug/L	1	ug/L	50.0	ug/L	127	30-145		
Carbon disulfide	81.3 ug/L	10	ug/L	50.0	ug/L	163	35-160		L
Carbon tetrachloride	50.5 ug/L	1	ug/L	50.0	ug/L	101	65-140		
Chlorobenzene	55.4 ug/L	1	ug/L	50.0	ug/L	111	80-120		
Chloroethane	61.3 ug/L	1	ug/L	50.0	ug/L	123	60-135		
Chloroform	61.0 ug/L	0.5	ug/L	50.0	ug/L	122	65-135		
Chloromethane	75.6 ug/L	1	ug/L	50.0	ug/L	151	40-125		L
cis-1,2-Dichloroethylene	62.0 ug/L	1	ug/L	50.0	ug/L	124	70-125		
cis-1,3-Dichloropropene	52.4 ug/L	1	ug/L	50.0	ug/L	105	70-130		
Dibromochloromethane	49.0 ug/L	0.5	ug/L	50.0	ug/L	98.0	60-135		
Dibromomethane	54.5 ug/L	1	ug/L	50.0	ug/L	109	75-125		
Dichlorodifluoromethane	54.1 ug/L	1	ug/L	50.0	ug/L	108	30-155		
Ethylbenzene	60.1 ug/L	1	ug/L	50.0	ug/L	120	75-125		
Hexachlorobutadiene	50.6 ug/L	0.8	ug/L	50.0	ug/L	101	50-140		
Isopropylbenzene	53.2 ug/L	1	ug/L	50.0	ug/L	106	75-125		
m+p-Xylenes	110 ug/L	2	ug/L	100	ug/L	110	75-130		
Methylene chloride	68.2 ug/L	4	ug/L	50.0	ug/L	136	55-140		

## Certificate of Analysis

### Final Report

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Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0496 - SW5030B-MS

##### LCS (BHF0496-BS1)

Prepared &amp; Analyzed: 06/13/2024

Methyl-t-butyl ether (MTBE)	59.7 ug/L	1	ug/L	50.0	ug/L	119	65-125			
Naphthalene	57.5 ug/L	1	ug/L	50.0	ug/L	115	55-140			
n-Butylbenzene	64.5 ug/L	1	ug/L	50.0	ug/L	129	70-135			
n-Propylbenzene	54.3 ug/L	1	ug/L	50.0	ug/L	109	70-130			
o-Xylene	54.5 ug/L	1	ug/L	50.0	ug/L	109	80-120			
sec-Butylbenzene	63.1 ug/L	1	ug/L	50.0	ug/L	126	70-125			L
Styrene	54.8 ug/L	1	ug/L	50.0	ug/L	110	65-135			
tert-Butylbenzene	58.1 ug/L	1	ug/L	50.0	ug/L	116	70-130			
Tetrachloroethylene (PCE)	51.1 ug/L	1	ug/L	50.0	ug/L	102	45-150			
Toluene	58.9 ug/L	1	ug/L	50.0	ug/L	118	75-120			
trans-1,2-Dichloroethylene	63.5 ug/L	1	ug/L	50.0	ug/L	127	60-140			
trans-1,3-Dichloropropene	54.4 ug/L	1	ug/L	50.0	ug/L	109	55-140			
Trichloroethylene	57.4 ug/L	1	ug/L	50.0	ug/L	115	70-125			
Trichlorofluoromethane	57.0 ug/L	1	ug/L	50.0	ug/L	114	60-145			
Vinyl chloride	57.0 ug/L	0.5	ug/L	50.0	ug/L	114	50-145			
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Surr: 1,2-Dichloroethane-d4 (Surr)	56.1		ug/L	50.0	ug/L	112	70-120			
Surr: 4-Bromofluorobenzene (Surr)	50.2		ug/L	50.0	ug/L	100	75-120			
Surr: Dibromofluoromethane (Surr)	54.7		ug/L	50.0	ug/L	109	70-130			
Surr: Toluene-d8 (Surr)	52.1		ug/L	50.0	ug/L	104	70-130			

##### Matrix Spike (BHF0496-MS1)

Source: 24F0696-01

Prepared &amp; Analyzed: 06/13/2024

1,1,1,2-Tetrachloroethane	44.6 ug/L	0.4	ug/L	50.0	<0.4 ug/L	89.2	80-130			
1,1,1-Trichloroethane	51.9 ug/L	1	ug/L	50.0	<1 ug/L	104	65-130			
1,1,2,2-Tetrachloroethane	51.0 ug/L	0.4	ug/L	50.0	<0.4 ug/L	102	65-130			
1,1,2-Trichloroethane	50.2 ug/L	1	ug/L	50.0	<1 ug/L	100	75-125			
1,1-Dichloroethane	60.9 ug/L	1	ug/L	50.0	<1 ug/L	122	70-135			
1,1-Dichloroethylene	53.6 ug/L	1	ug/L	50.0	<1 ug/L	107	50-145			
1,1-Dichloropropene	58.1 ug/L	1	ug/L	50.0	<1 ug/L	116	75-135			
1,2,3-Trichlorobenzene	50.2 ug/L	1	ug/L	50.0	<1 ug/L	100	55-140			
1,2,3-Trichloropropane	49.8 ug/L	1	ug/L	50.0	<1 ug/L	99.5	75-125			
1,2,4-Trichlorobenzene	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.7	65-135			
1,2,4-Trimethylbenzene	57.7 ug/L	1	ug/L	50.0	<1 ug/L	115	75-130			

## Certificate of Analysis

### Final Report

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Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0496 - SW5030B-MS

##### Matrix Spike (BHF0496-MS1)

Source: 24F0696-01

Prepared &amp; Analyzed: 06/13/2024

1,2-Dibromo-3-chloropropane (DBCP)	42.4 ug/L	1	ug/L	50.0	<1 ug/L	84.8	50-130			
1,2-Dibromoethane (EDB)	47.4 ug/L	1	ug/L	50.0	<1 ug/L	94.8	80-120			
1,2-Dichlorobenzene	52.6 ug/L	0.5	ug/L	50.0	<0.5 ug/L	105	70-120			
1,2-Dichloroethane	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	70-130			
1,2-Dichloropropane	55.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	110	75-125			
1,3,5-Trimethylbenzene	55.2 ug/L	1	ug/L	50.0	<1 ug/L	110	75-124			
1,3-Dichlorobenzene	51.7 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125			
1,3-Dichloropropane	52.2 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125			
1,4-Dichlorobenzene	51.6 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125			
2,2-Dichloropropane	52.6 ug/L	1	ug/L	50.0	<1 ug/L	105	70-135			
2-Butanone (MEK)	43.6 ug/L	10	ug/L	50.0	<10 ug/L	87.2	30-150			
2-Chlorotoluene	50.3 ug/L	1	ug/L	50.0	<1 ug/L	101	75-125			
2-Hexanone (MBK)	46.0 ug/L	5	ug/L	50.0	<5 ug/L	92.1	55-130			
4-Chlorotoluene	51.2 ug/L	1	ug/L	50.0	<1 ug/L	102	75-130			
4-Isopropyltoluene	58.1 ug/L	1	ug/L	50.0	<1 ug/L	116	75-130			
4-Methyl-2-pentanone (MIBK)	47.3 ug/L	5	ug/L	50.0	<5 ug/L	94.7	60-135			
Acetone	55.8 ug/L	10	ug/L	50.0	<10 ug/L	112	40-140			
Benzene	56.2 ug/L	1	ug/L	50.0	<1 ug/L	112	80-120			
Bromobenzene	46.9 ug/L	1	ug/L	50.0	<1 ug/L	93.9	75-125			
Bromochloromethane	51.3 ug/L	1	ug/L	50.0	<1 ug/L	103	65-130			
Bromodichloromethane	47.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	95.6	75-136			
Bromoform	40.4 ug/L	1	ug/L	50.0	<1 ug/L	80.8	70-130			
Bromomethane	57.1 ug/L	1	ug/L	50.0	<1 ug/L	114	30-145			
Carbon disulfide	84.0 ug/L	10	ug/L	50.0	<10 ug/L	168	35-160			M
Carbon tetrachloride	45.4 ug/L	1	ug/L	50.0	<1 ug/L	90.7	65-140			
Chlorobenzene	49.9 ug/L	1	ug/L	50.0	<1 ug/L	99.9	80-120			
Chloroethane	56.2 ug/L	1	ug/L	50.0	<1 ug/L	112	60-135			
Chloroform	54.2 ug/L	0.5	ug/L	50.0	<0.5 ug/L	108	65-135			
Chloromethane	70.2 ug/L	1	ug/L	50.0	<1 ug/L	140	40-125			M
cis-1,2-Dichloroethylene	58.6 ug/L	1	ug/L	50.0	1.88 ug/L	113	70-125			
cis-1,3-Dichloropropene	46.3 ug/L	1	ug/L	50.0	<1 ug/L	92.5	47-136			



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## Certificate of Analysis

### Final Report

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 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy VA

Date Issued: June 18, 2024 17:21  
 Project Number: 4260177  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0496 - SW5030B-MS

##### Matrix Spike (BHF0496-MS1)

Source: 24F0696-01

Prepared & Analyzed: 06/13/2024

Dibromochloromethane	43.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	86.0	60-135			
Dibromomethane	49.0 ug/L	1	ug/L	50.0	<1 ug/L	98.1	75-125			
Dichlorodifluoromethane	50.5 ug/L	1	ug/L	50.0	<1 ug/L	101	30-155			
Ethylbenzene	54.4 ug/L	1	ug/L	50.0	<1 ug/L	109	75-125			
Hexachlorobutadiene	46.0 ug/L	0.8	ug/L	50.0	<0.8 ug/L	91.9	50-140			
Isopropylbenzene	48.1 ug/L	1	ug/L	50.0	<1 ug/L	96.2	75-125			
m+p-Xylenes	99.6 ug/L	2	ug/L	100	<2 ug/L	99.6	75-130			
Methylene chloride	61.9 ug/L	4	ug/L	50.0	<4 ug/L	124	55-140			
Methyl-t-butyl ether (MTBE)	53.2 ug/L	1	ug/L	50.0	<1 ug/L	106	65-125			
Naphthalene	52.2 ug/L	1	ug/L	50.0	<1 ug/L	104	55-140			
n-Butylbenzene	59.3 ug/L	1	ug/L	50.0	<1 ug/L	119	70-135			
n-Propylbenzene	50.6 ug/L	1	ug/L	50.0	<1 ug/L	101	70-130			
o-Xylene	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.6	80-120			
sec-Butylbenzene	58.0 ug/L	1	ug/L	50.0	<1 ug/L	116	70-125			
Styrene	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.6	65-135			
tert-Butylbenzene	53.4 ug/L	1	ug/L	50.0	<1 ug/L	107	70-130			
Tetrachloroethylene (PCE)	62.6 ug/L	1	ug/L	50.0	20.3 ug/L	84.5	51-231			
Toluene	53.1 ug/L	1	ug/L	50.0	<1 ug/L	106	75-120			
trans-1,2-Dichloroethylene	57.4 ug/L	1	ug/L	50.0	<1 ug/L	115	60-140			
trans-1,3-Dichloropropene	48.1 ug/L	1	ug/L	50.0	<1 ug/L	96.2	55-140			
Trichloroethylene	51.9 ug/L	1	ug/L	50.0	1.44 ug/L	101	70-125			
Trichlorofluoromethane	55.2 ug/L	1	ug/L	50.0	<1 ug/L	110	60-145			
Vinyl chloride	52.5 ug/L	0.5	ug/L	50.0	<0.5 ug/L	105	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	55.5		ug/L	50.0	ug/L	111	70-120			
Surr: 4-Bromofluorobenzene (Surr)	50.1		ug/L	50.0	ug/L	100	75-120			
Surr: Dibromofluoromethane (Surr)	53.9		ug/L	50.0	ug/L	108	70-130			
Surr: Toluene-d8 (Surr)	51.7		ug/L	50.0	ug/L	103	70-130			



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### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0496 - SW5030B-MS

#### Matrix Spike Dup (BHF0496-MSD1)

Source: 24F0696-01

Prepared & Analyzed: 06/13/2024

1,1,1,2-Tetrachloroethane	44.2 ug/L	0.4	ug/L	50.0	<0.4 ug/L	88.4	80-130	0.900	30	
1,1,1-Trichloroethane	50.5 ug/L	1	ug/L	50.0	<1 ug/L	101	65-130	2.77	30	
1,1,2,2-Tetrachloroethane	51.4 ug/L	0.4	ug/L	50.0	<0.4 ug/L	103	65-130	0.703	30	
1,1,2-Trichloroethane	51.1 ug/L	1	ug/L	50.0	<1 ug/L	102	75-125	1.74	30	
1,1-Dichloroethane	63.5 ug/L	1	ug/L	50.0	<1 ug/L	127	70-135	4.28	30	
1,1-Dichloroethylene	53.0 ug/L	1	ug/L	50.0	<1 ug/L	106	50-145	1.01	30	
1,1-Dichloropropene	58.2 ug/L	1	ug/L	50.0	<1 ug/L	116	75-135	0.189	30	
1,2,3-Trichlorobenzene	49.9 ug/L	1	ug/L	50.0	<1 ug/L	99.7	55-140	0.580	30	
1,2,3-Trichloropropane	50.1 ug/L	1	ug/L	50.0	<1 ug/L	100	75-125	0.681	30	
1,2,4-Trichlorobenzene	48.8 ug/L	1	ug/L	50.0	<1 ug/L	97.5	65-135	1.16	30	
1,2,4-Trimethylbenzene	56.6 ug/L	1	ug/L	50.0	<1 ug/L	113	75-130	1.96	30	
1,2-Dibromo-3-chloropropane (DBCP)	42.9 ug/L	1	ug/L	50.0	<1 ug/L	85.9	50-130	1.22	30	
1,2-Dibromoethane (EDB)	47.9 ug/L	1	ug/L	50.0	<1 ug/L	95.7	80-120	1.03	30	
1,2-Dichlorobenzene	50.7 ug/L	0.5	ug/L	50.0	<0.5 ug/L	101	70-120	3.56	30	
1,2-Dichloroethane	51.1 ug/L	1	ug/L	50.0	<1 ug/L	102	70-130	1.38	30	
1,2-Dichloropropane	55.8 ug/L	0.5	ug/L	50.0	<0.5 ug/L	112	75-125	1.41	30	
1,3,5-Trimethylbenzene	54.3 ug/L	1	ug/L	50.0	<1 ug/L	109	75-124	1.75	30	
1,3-Dichlorobenzene	50.6 ug/L	1	ug/L	50.0	<1 ug/L	101	75-125	2.13	30	
1,3-Dichloropropane	53.0 ug/L	1	ug/L	50.0	<1 ug/L	106	75-125	1.52	30	
1,4-Dichlorobenzene	49.8 ug/L	1	ug/L	50.0	<1 ug/L	99.6	75-125	3.49	30	
2,2-Dichloropropane	52.9 ug/L	1	ug/L	50.0	<1 ug/L	106	70-135	0.455	30	
2-Butanone (MEK)	51.8 ug/L	10	ug/L	50.0	<10 ug/L	104	30-150	17.2	30	
2-Chlorotoluene	48.3 ug/L	1	ug/L	50.0	<1 ug/L	96.6	75-125	4.09	30	
2-Hexanone (MBK)	48.7 ug/L	5	ug/L	50.0	<5 ug/L	97.4	55-130	5.64	30	
4-Chlorotoluene	49.1 ug/L	1	ug/L	50.0	<1 ug/L	98.3	75-130	4.11	30	
4-Isopropyltoluene	56.8 ug/L	1	ug/L	50.0	<1 ug/L	114	75-130	2.23	30	
4-Methyl-2-pentanone (MIBK)	52.3 ug/L	5	ug/L	50.0	<5 ug/L	105	60-135	10.0	30	
Acetone	56.9 ug/L	10	ug/L	50.0	<10 ug/L	114	40-140	1.92	30	
Benzene	56.0 ug/L	1	ug/L	50.0	<1 ug/L	112	80-120	0.357	30	
Bromobenzene	45.2 ug/L	1	ug/L	50.0	<1 ug/L	90.3	75-125	3.89	30	
Bromochloromethane	51.0 ug/L	1	ug/L	50.0	<1 ug/L	102	65-130	0.645	30	



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	June 18, 2024 17:21
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0496 - SW5030B-MS

##### Matrix Spike Dup (BHF0496-MSD1)

Source: 24F0696-01

Prepared & Analyzed: 06/13/2024

Bromodichloromethane	46.7 ug/L	0.5	ug/L	50.0	<0.5 ug/L	93.3	75-136	2.43	30	
Bromoform	40.2 ug/L	1	ug/L	50.0	<1 ug/L	80.4	70-130	0.496	30	
Bromomethane	56.8 ug/L	1	ug/L	50.0	<1 ug/L	114	30-145	0.685	30	
Carbon disulfide	82.1 ug/L	10	ug/L	50.0	<10 ug/L	164	35-160	2.34	30	M
Carbon tetrachloride	45.4 ug/L	1	ug/L	50.0	<1 ug/L	90.8	65-140	0.0882	30	
Chlorobenzene	48.9 ug/L	1	ug/L	50.0	<1 ug/L	97.8	80-120	2.13	30	
Chloroethane	55.3 ug/L	1	ug/L	50.0	<1 ug/L	111	60-135	1.60	30	
Chloroform	55.1 ug/L	0.5	ug/L	50.0	<0.5 ug/L	110	65-135	1.52	30	
Chloromethane	68.8 ug/L	1	ug/L	50.0	<1 ug/L	138	40-125	2.01	30	M
cis-1,2-Dichloroethylene	57.4 ug/L	1	ug/L	50.0	1.88 ug/L	111	70-125	2.09	30	
cis-1,3-Dichloropropene	47.2 ug/L	1	ug/L	50.0	<1 ug/L	94.5	47-136	2.05	30	
Dibromochloromethane	43.5 ug/L	0.5	ug/L	50.0	<0.5 ug/L	87.0	60-135	1.23	30	
Dibromomethane	49.1 ug/L	1	ug/L	50.0	<1 ug/L	98.2	75-125	0.0611	30	
Dichlorodifluoromethane	49.8 ug/L	1	ug/L	50.0	<1 ug/L	99.7	30-155	1.24	30	
Ethylbenzene	52.9 ug/L	1	ug/L	50.0	<1 ug/L	106	75-125	2.70	30	
Hexachlorobutadiene	45.2 ug/L	0.8	ug/L	50.0	<0.8 ug/L	90.5	50-140	1.58	30	
Isopropylbenzene	46.8 ug/L	1	ug/L	50.0	<1 ug/L	93.5	75-125	2.89	30	
m+p-Xylenes	96.3 ug/L	2	ug/L	100	<2 ug/L	96.3	75-130	3.40	30	
Methylene chloride	61.3 ug/L	4	ug/L	50.0	<4 ug/L	123	55-140	0.974	30	
Methyl-t-butyl ether (MTBE)	55.1 ug/L	1	ug/L	50.0	<1 ug/L	110	65-125	3.64	30	
Naphthalene	53.0 ug/L	1	ug/L	50.0	<1 ug/L	106	55-140	1.60	30	
n-Butylbenzene	57.6 ug/L	1	ug/L	50.0	<1 ug/L	115	70-135	3.01	30	
n-Propylbenzene	48.4 ug/L	1	ug/L	50.0	<1 ug/L	96.8	70-130	4.37	30	
o-Xylene	47.9 ug/L	1	ug/L	50.0	<1 ug/L	95.8	80-120	2.82	30	
sec-Butylbenzene	56.4 ug/L	1	ug/L	50.0	<1 ug/L	113	70-125	2.87	30	
Styrene	47.9 ug/L	1	ug/L	50.0	<1 ug/L	95.8	65-135	2.92	30	
tert-Butylbenzene	51.7 ug/L	1	ug/L	50.0	<1 ug/L	103	70-130	3.25	30	
Tetrachloroethylene (PCE)	61.7 ug/L	1	ug/L	50.0	20.3 ug/L	82.7	51-231	1.48	30	
Toluene	53.4 ug/L	1	ug/L	50.0	<1 ug/L	107	75-120	0.620	30	
trans-1,2-Dichloroethylene	56.7 ug/L	1	ug/L	50.0	<1 ug/L	113	60-140	1.19	30	
trans-1,3-Dichloropropene	49.1 ug/L	1	ug/L	50.0	<1 ug/L	98.3	55-140	2.08	30	



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Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0496 - SW5030B-MS

#### Matrix Spike Dup (BHF0496-MSD1)

Source: 24F0696-01

Prepared & Analyzed: 06/13/2024

Trichloroethylene	51.7 ug/L	1	ug/L	50.0	1.44 ug/L	100	70-125	0.444	30	
Trichlorofluoromethane	55.5 ug/L	1	ug/L	50.0	<1 ug/L	111	60-145	0.488	30	
Vinyl chloride	52.2 ug/L	0.5	ug/L	50.0	<0.5 ug/L	104	50-145	0.592	30	
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Surr: 1,2-Dichloroethane-d4 (Surr)	56.2		ug/L	50.0	ug/L	112	70-120			
Surr: 4-Bromofluorobenzene (Surr)	49.7		ug/L	50.0	ug/L	99.5	75-120			
Surr: Dibromofluoromethane (Surr)	55.5		ug/L	50.0	ug/L	111	70-130			
Surr: Toluene-d8 (Surr)	52.4		ug/L	50.0	ug/L	105	70-130			



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### Micro-extractables by GC/ECD - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0573 - SW8011

##### Blank (BHF0573-BLK1)

Prepared &amp; Analyzed: 06/17/2024

1,2-Dibromoethane (EDB)	<0.010 ug/L	0.010	ug/L						
1,2,3-Trichloropropane	<0.010 ug/L	0.010	ug/L						
1,2-Dibromo-3-chloropropane (DBCP)	<0.010 ug/L	0.010	ug/L						

##### LCS (BHF0573-BS1)

Prepared &amp; Analyzed: 06/17/2024

1,2-Dibromoethane (EDB)	0.181 ug/L	0.010	ug/L	0.250 ug/L	72.3	65-135			
1,2,3-Trichloropropane	0.168 ug/L	0.010	ug/L	0.250 ug/L	67.1	65-135			
1,2-Dibromo-3-chloropropane (DBCP)	0.163 ug/L	0.010	ug/L	0.250 ug/L	65.3	65-135			

##### Matrix Spike (BHF0573-MS1)

Source: 24F0316-04

Prepared &amp; Analyzed: 06/17/2024

1,2-Dibromoethane (EDB)	0.167 ug/L	0.010	ug/L	0.251	<0.010 ug/L	66.6	65-135		
1,2,3-Trichloropropane	0.255 ug/L	0.010	ug/L	0.251	<0.010 ug/L	101	65-135		
1,2-Dibromo-3-chloropropane (DBCP)	0.166 ug/L	0.010	ug/L	0.251	<0.010 ug/L	66.2	65-135		

##### Matrix Spike Dup (BHF0573-MSD1)

Source: 24F0316-04

Prepared &amp; Analyzed: 06/17/2024

1,2-Dibromoethane (EDB)	0.185 ug/L	0.010	ug/L	0.255	<0.010 ug/L	72.5	65-135	9.88	20	
1,2,3-Trichloropropane	0.191 ug/L	0.010	ug/L	0.255	<0.010 ug/L	74.8	65-135	28.9	20	P
1,2-Dibromo-3-chloropropane (DBCP)	0.179 ug/L	0.010	ug/L	0.255	<0.010 ug/L	70.4	65-135	7.57	20	

#### Batch BHF0574 - SW8011

##### Blank (BHF0574-BLK1)

Prepared: 06/17/2024 Analyzed: 06/18/2024

1,2-Dibromoethane (EDB)	<0.010 ug/L	0.010	ug/L						
1,2,3-Trichloropropane	<0.010 ug/L	0.010	ug/L						
1,2-Dibromo-3-chloropropane (DBCP)	<0.010 ug/L	0.010	ug/L						

##### LCS (BHF0574-BS1)

Prepared: 06/17/2024 Analyzed: 06/18/2024

1,2-Dibromoethane (EDB)	0.169 ug/L	0.010	ug/L	0.250 ug/L	67.4	65-135			
1,2,3-Trichloropropane	0.169 ug/L	0.010	ug/L	0.250 ug/L	67.8	65-135			
1,2-Dibromo-3-chloropropane (DBCP)	0.164 ug/L	0.010	ug/L	0.250 ug/L	65.5	65-135			

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### Micro-extractables by GC/ECD - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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**Batch BHF0574 - SW8011**
**Matrix Spike (BHF0574-MS1)**
**Source: 24F0764-05**

Prepared: 06/17/2024 Analyzed: 06/18/2024

1,2-Dibromoethane (EDB)	0.187 ug/L	0.010	ug/L	0.253	<0.010 ug/L	73.8	65-135			
1,2,3-Trichloropropane	0.170 ug/L	0.010	ug/L	0.253	<0.010 ug/L	67.1	65-135			
1,2-Dibromo-3-chloropropane (DBCP)	0.165 ug/L	0.010	ug/L	0.253	<0.010 ug/L	65.1	65-135			

**Matrix Spike Dup (BHF0574-MSD1)**
**Source: 24F0764-05**

Prepared: 06/17/2024 Analyzed: 06/18/2024

1,2-Dibromoethane (EDB)	0.180 ug/L	0.010	ug/L	0.253	<0.010 ug/L	71.1	65-135	3.83	20	
1,2,3-Trichloropropane	0.465 ug/L	0.010	ug/L	0.253	<0.010 ug/L	183	65-135	92.9	20	M, P
1,2-Dibromo-3-chloropropane (DBCP)	0.170 ug/L	0.010	ug/L	0.253	<0.010 ug/L	66.9	65-135	2.72	20	

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### Certified Analyses included in this Report

Analyte	Certifications
<b>SW8011 in Non-Potable Water</b>	
1,2-Dibromoethane (EDB)	VELAP,NCDEQ
1,2,3-Trichloropropane	VELAP,NCDEQ
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ
<b>SW8260D in Non-Potable Water</b>	
1,1,1,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,1-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromoethane (EDB)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,3,5-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,4-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
2,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
2-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
2-Hexanone (MBK)	VELAP,NCDEQ,PADEP,WVDEP
4-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Isopropyltoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Methyl-2-pentanone (MIBK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Bromobenzene	VELAP,NCDEQ,PADEP,WVDEP
Bromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromodichloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromoform	VELAP,NCDEQ,PADEP,WVDEP

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### Certified Analyses included in this Report

Analyte	Certifications
Bromomethane	VELAP,NCDEQ,PADEP,WVDEP
Carbon disulfide	VELAP,NCDEQ,PADEP,WVDEP
Carbon tetrachloride	VELAP,NCDEQ,PADEP,WVDEP
Chlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
Chloroethane	VELAP,NCDEQ,PADEP,WVDEP
Chloroform	VELAP,NCDEQ,PADEP,WVDEP
Chloromethane	VELAP,NCDEQ,PADEP,WVDEP
cis-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
cis-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Dibromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Dibromomethane	VELAP,NCDEQ,PADEP,WVDEP
Dichlorodifluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Di-isopropyl ether (DIPE)	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Hexachlorobutadiene	VELAP,NCDEQ,PADEP,WVDEP
Iodomethane	VELAP,NCDEQ,PADEP,WVDEP
Isopropylbenzene	VELAP,NCDEQ,PADEP,WVDEP
m+p-Xylenes	VELAP,NCDEQ,PADEP,WVDEP
Methylene chloride	VELAP,NCDEQ,PADEP,WVDEP
Methyl-t-butyl ether (MTBE)	VELAP,NCDEQ,PADEP,WVDEP
Naphthalene	VELAP,NCDEQ,PADEP,WVDEP
n-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
n-Propylbenzene	VELAP,NCDEQ,PADEP,WVDEP
o-Xylene	VELAP,NCDEQ,PADEP,WVDEP
sec-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Styrene	VELAP,NCDEQ,PADEP,WVDEP
tert-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Tetrachloroethylene (PCE)	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Trichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
Trichlorofluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Vinyl acetate	VELAP,NCDEQ,PADEP,WVDEP
Vinyl chloride	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP



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Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2024
NYDOH	New York DOH Drinking Water	12069	04/01/2025
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
SCDHEC	South Carolina Dept of Health and Environmental	93016	06/14/2024
TXCEQ	Texas Comm on Environmental Quality #T104704	T104704576	05/31/2025
VELAP	NELAP-Virginia Certificate #12969	460021	06/14/2025
WVDEP	West Virginia DEP	350	11/30/2024



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### Summary of Data Qualifiers

C Continuing calibration verification response for this analyte is outside specifications.

Cl Residual Chlorine or other oxidizing agent was detected in the container used to analyze this sample.

L LCS recovery is outside of established acceptance limits

M Matrix spike recovery is outside established acceptance limits

P Duplicate analysis does not meet the acceptance criteria for precision

RPD Relative Percent Difference

Qual Qualifiers

-RE Denotes sample was re-analyzed

D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

**CHAIN OF CUSTODY**

COMPANY NAME: <u>Total Environmental Concepts</u>		INVOICE TO: <u>same</u>	PROJECT NAME/Quote #: <u>Coopers Cove Rd</u>
CONTACT: <u>Shanna Hryvniak</u>		INVOICE CONTACT: <u>Shanna Hryvniak</u>	SITE NAME: <u>Coopers Cove Rd, Hardy, VA</u>
ADDRESS: <u>8382 Terminal Rd, Lorton, VA</u>		INVOICE ADDRESS: <u>same</u>	PROJECT NUMBER: <u>4260177</u>
PHONE #: <u>804-389-7983</u>		INVOICE PHONE #: <u>703-567-4346</u>	P.O. #: <u>4260177-001</u>
FAX #: <u>N/A</u>	EMAIL: <u>shryvniak@tec.com</u>		Pretreatment Program:
Is sample for compliance reporting? YES <input checked="" type="radio"/> NO <input type="radio"/>		Regulatory State: <u>VA</u>	Is sample from a chlorinated supply? YES <input checked="" type="radio"/> NO <input type="radio"/>
SAMPLER NAME (PRINT): <u>David C. Dudley</u>		SAMPLER SIGNATURE: <u>[Signature]</u>	Turn Around Time: Circle <u>100</u> 5 Days or <u>  </u> Day(s)

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other

LAB USE ONLY	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	ANALYSIS		COMMENTS
											8260-1064	8011-EDB	
Cooler Temp													Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol "DEQ state Lead Rates"  PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)
Therm ID: <u>271</u>													
Observed Temp °C <u>0.1</u>													
Correction Factor °C <u>0.0</u>													
Corrected Temp °C <u>0.1</u>													
CLIENT SAMPLE I.D.													
1) <u>930 Buckeye Ln</u>	<input checked="" type="checkbox"/>					<u>6-11-24</u>	<u>1:45</u>	<u>2:00</u>	<u>GW</u>	<u>5</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2)													
3) <u>5370 Palmetto Blvd</u>	<input checked="" type="checkbox"/>					<u>6-11-24</u>	<u>2:30</u>	<u>2:45</u>	<u>GW</u>	<u>5</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
4)													
5) <u>4567 Windy Gap Dr.</u>	<input checked="" type="checkbox"/>					<u>6-11-24</u>	<u>3:45</u>	<u>3:55</u>	<u>GW</u>	<u>5</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
6)													
7) <u>Trip blank</u>										<u>2</u>	<input checked="" type="checkbox"/>		
8)													
9)													
10)													

Page 36 of 37	UNOBTAINED: <u>[Signature]</u> DATE / TIME: <u>6-11-24/12:50</u>	RECEIVED: <u>[Signature]</u> DATE / TIME: <u>6-12-24 1336</u>	QC Data Package Level III <input type="checkbox"/> Level IV <input type="checkbox"/>	LAB USE ONLY
	UNOBTAINED: <u>[Signature]</u> DATE / TIME: <u>6/12/24 1336</u>	RECEIVED: <u>[Signature]</u> DATE / TIME: <u>6-12-24 1336</u>	Custody Seals used and intact? (Y/N) <input checked="" type="checkbox"/>	<b>TEC-Springfield 24F0738</b> <b>Coopers Cove - State Lead</b> <b>Recd: 06/12/2024 Due: 06/19/2024</b> v130325007
	UNOBTAINED: <u>[Signature]</u> DATE / TIME: <u>6/12/24 1336</u>	RECEIVED: <u>[Signature]</u> DATE / TIME: <u>6-12-24 1336</u>	Received on ice? (Y/N) <input checked="" type="checkbox"/>	



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### Certificate of Analysis

#### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 18, 2024 17:21
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy VA	Purchase Order:	4260177-001

### Sample Conditions Checklist

Samples Received at:	0.10°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	No
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	Yes
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	No
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes

Shanna Hryvniak notified via email for trip blanks were not received for EDB 8011 analysis. HEG 6/13/24 1408

Shanna Hryvniak confirmed via email to run EDB without trip blanks. HEG 6/13/24 1500





**Attachment G**

**Laboratory Analytical Report (6/27/2024)**



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## Certificate of Analysis

*Final Report*

Laboratory Order ID 24G0063

Client Name: Total Environmental Concepts-Lorton  
8382 Terminal Rd, Bay B

Date Received: July 1, 2024 13:55

Date Issued: July 8, 2024 12:35

Lorton, VA 22079

Project Number: [none]

Submitted To: Shanna Hryvniak

Purchase Order:

Client Site I.D.: Coopers Cove Rd

Enclosed are the results of analyses for samples received by the laboratory on 07/01/2024 13:55. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads 'Andrew Bruner'.

Andrew Bruner  
Project Manager

### End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

This report shall not be reproduced except in full without the expressed and written approval of an authorized representative of Enthalpy Analytical.



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VELAP ID 460021



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### Certificate of Analysis

*Final Report*

Client Name: Total Environmental Concepts-Lorton      Date Issued: July 08, 2024 12:35  
8382 Terminal Rd, Bay B      Project Number: [none]  
Lorton VA, 22079      Purchase Order:  
Submitted To: Shanna Hryvniak  
Client Site I.D.: Coopers Cove Rd

#### ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 24G0063

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
920 Buckeye Ln	24G0063-01	Ground Water	06/27/2024 13:30	07/01/2024 13:55
5370 Palmetto Bluff	24G0063-02	Ground Water	06/27/2024 14:15	07/01/2024 13:55
4567 Windy Gap	24G0063-03	Ground Water	06/27/2024 15:20	07/01/2024 13:55
Trip Blank	24G0063-04	Ground Water	06/20/2024 15:25	07/01/2024 13:55



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. 920 Buckeye Ln Laboratory Sample ID: 24G0063-01

Grab Date/Time: 06/27/2024 13:30

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	07/03/24 15:39	07/03/24 15:39	RJB
1,1,1-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,1,2,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	07/03/24 15:39	07/03/24 15:39	RJB
1,1,2-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,1-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,1-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,1-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,2,3-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,2,3-Trichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,2,4-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,2,4-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,2-Dibromoethane (EDB)	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,2-Dichlorobenzene	01	SW8260D	<0.50 ug/L		0.50	1	07/03/24 15:39	07/03/24 15:39	RJB
1,2-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,2-Dichloropropane	01	SW8260D	<0.50 ug/L		0.50	1	07/03/24 15:39	07/03/24 15:39	RJB
1,3,5-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,3-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,3-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
1,4-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
2,2-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
2-Butanone (MEK)	01	SW8260D	<10.0 ug/L		10.0	1	07/03/24 15:39	07/03/24 15:39	RJB
2-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
2-Hexanone (MBK)	01	SW8260D	<5.00 ug/L		5.00	1	07/03/24 15:39	07/03/24 15:39	RJB
4-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. 920 Buckeye Ln Laboratory Sample ID: 24G0063-01  
 Grab Date/Time: 06/27/2024 13:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
4-Methyl-2-pentanone (MIBK)	01	SW8260D	<5.00 ug/L		5.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Acetone	01	SW8260D	<10.0 ug/L		10.0	1	07/03/24 15:39	07/03/24 15:39	RJB
Benzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Bromobenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Bromochloromethane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Bromodichloromethane	01	SW8260D	<0.50 ug/L		0.50	1	07/03/24 15:39	07/03/24 15:39	RJB
Bromoform	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Bromomethane	01	SW8260D	<1.00 ug/L	C	1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Carbon disulfide	01	SW8260D	<10.0 ug/L	C	10.0	1	07/03/24 15:39	07/03/24 15:39	RJB
Carbon tetrachloride	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Chlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Chloroethane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Chloroform	01	SW8260D	<0.50 ug/L		0.50	1	07/03/24 15:39	07/03/24 15:39	RJB
Chloromethane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
cis-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
cis-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Dibromochloromethane	01	SW8260D	<0.50 ug/L		0.50	1	07/03/24 15:39	07/03/24 15:39	RJB
Dibromomethane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Dichlorodifluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Di-isopropyl ether (DIPE)	01	SW8260D	<5.00 ug/L		5.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Ethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Hexachlorobutadiene	01	SW8260D	<0.80 ug/L		0.80	1	07/03/24 15:39	07/03/24 15:39	RJB
Iodomethane	01	SW8260D	<10.0 ug/L	C	10.0	1	07/03/24 15:39	07/03/24 15:39	RJB
Isopropylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
m+p-Xylenes	01	SW8260D	<2.00 ug/L		2.00	1	07/03/24 15:39	07/03/24 15:39	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. 920 Buckeye Ln Laboratory Sample ID: 24G0063-01

Grab Date/Time: 06/27/2024 13:30

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	01	SW8260D	<4.00 ug/L		4.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Methyl-t-butyl ether (MTBE)	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Naphthalene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
n-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
n-Propylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
o-Xylene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
sec-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Styrene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
tert-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Tetrachloroethylene (PCE)	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Toluene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
trans-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
trans-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Trichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Trichlorofluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Vinyl acetate	01	SW8260D	<10.0 ug/L		10.0	1	07/03/24 15:39	07/03/24 15:39	RJB
Vinyl chloride	01	SW8260D	<0.50 ug/L		0.50	1	07/03/24 15:39	07/03/24 15:39	RJB
Xylenes, Total	01	SW8260D	<3.00 ug/L		3.00	1	07/03/24 15:39	07/03/24 15:39	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	01	SW8260D	99.2 %		70-120		07/03/24 15:39	07/03/24 15:39	RJB
Surr: 4-Bromofluorobenzene (Surr)	01	SW8260D	97.7 %		75-120		07/03/24 15:39	07/03/24 15:39	RJB
Surr: Dibromofluoromethane (Surr)	01	SW8260D	96.3 %		70-130		07/03/24 15:39	07/03/24 15:39	RJB
Surr: Toluene-d8 (Surr)	01	SW8260D	99.2 %		70-130		07/03/24 15:39	07/03/24 15:39	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. 5370 Palmetto Bluff Laboratory Sample ID: 24G0063-02

Grab Date/Time: 06/27/2024 14:15

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	07/03/24 16:02	07/03/24 16:02	RJB
1,1,1-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,1,2,2-Tetrachloroethane	02	SW8260D	<0.40 ug/L		0.40	1	07/03/24 16:02	07/03/24 16:02	RJB
1,1,2-Trichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,1-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,1-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,1-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,2,3-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,2,3-Trichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,2,4-Trichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,2,4-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,2-Dibromo-3-chloropropane (DBCP)	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,2-Dibromoethane (EDB)	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,2-Dichlorobenzene	02	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:02	07/03/24 16:02	RJB
1,2-Dichloroethane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,2-Dichloropropane	02	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:02	07/03/24 16:02	RJB
1,3,5-Trimethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,3-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,3-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
1,4-Dichlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
2,2-Dichloropropane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
2-Butanone (MEK)	02	SW8260D	<10.0 ug/L		10.0	1	07/03/24 16:02	07/03/24 16:02	RJB
2-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
2-Hexanone (MBK)	02	SW8260D	<5.00 ug/L		5.00	1	07/03/24 16:02	07/03/24 16:02	RJB
4-Chlorotoluene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. 5370 Palmetto Bluff Laboratory Sample ID: 24G0063-02  
 Grab Date/Time: 06/27/2024 14:15  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
4-Methyl-2-pentanone (MIBK)	02	SW8260D	<5.00 ug/L		5.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Acetone	02	SW8260D	<10.0 ug/L		10.0	1	07/03/24 16:02	07/03/24 16:02	RJB
Benzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Bromobenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Bromochloromethane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Bromodichloromethane	02	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:02	07/03/24 16:02	RJB
Bromoform	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Bromomethane	02	SW8260D	<1.00 ug/L	C	1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Carbon disulfide	02	SW8260D	<10.0 ug/L	C	10.0	1	07/03/24 16:02	07/03/24 16:02	RJB
Carbon tetrachloride	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Chlorobenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Chloroethane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Chloroform	02	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:02	07/03/24 16:02	RJB
Chloromethane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
cis-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
cis-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Dibromochloromethane	02	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:02	07/03/24 16:02	RJB
Dibromomethane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Dichlorodifluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Di-isopropyl ether (DIPE)	02	SW8260D	<5.00 ug/L		5.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Ethylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Hexachlorobutadiene	02	SW8260D	<0.80 ug/L		0.80	1	07/03/24 16:02	07/03/24 16:02	RJB
Iodomethane	02	SW8260D	<10.0 ug/L	C	10.0	1	07/03/24 16:02	07/03/24 16:02	RJB
Isopropylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
m+p-Xylenes	02	SW8260D	<2.00 ug/L		2.00	1	07/03/24 16:02	07/03/24 16:02	RJB





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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. 5370 Palmetto Bluff Laboratory Sample ID: 24G0063-02

Grab Date/Time: 06/27/2024 14:15

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	02	SW8260D	<4.00 ug/L		4.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Methyl-t-butyl ether (MTBE)	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Naphthalene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
n-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
n-Propylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
o-Xylene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
sec-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Styrene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
tert-Butylbenzene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Tetrachloroethylene (PCE)	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Toluene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
trans-1,2-Dichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
trans-1,3-Dichloropropene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Trichloroethylene	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Trichlorofluoromethane	02	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Vinyl acetate	02	SW8260D	<10.0 ug/L		10.0	1	07/03/24 16:02	07/03/24 16:02	RJB
Vinyl chloride	02	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:02	07/03/24 16:02	RJB
Xylenes, Total	02	SW8260D	<3.00 ug/L		3.00	1	07/03/24 16:02	07/03/24 16:02	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	02	SW8260D	105 %		70-120		07/03/24 16:02	07/03/24 16:02	RJB
Surr: 4-Bromofluorobenzene (Surr)	02	SW8260D	97.1 %		75-120		07/03/24 16:02	07/03/24 16:02	RJB
Surr: Dibromofluoromethane (Surr)	02	SW8260D	96.7 %		70-130		07/03/24 16:02	07/03/24 16:02	RJB
Surr: Toluene-d8 (Surr)	02	SW8260D	100 %		70-130		07/03/24 16:02	07/03/24 16:02	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. 4567 Windy Gap

Laboratory Sample ID: 24G0063-03

Grab Date/Time: 06/27/2024 15:20

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	07/03/24 16:49	07/03/24 16:49	RJB
1,1,1-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,1,2,2-Tetrachloroethane	03	SW8260D	<0.40 ug/L		0.40	1	07/03/24 16:49	07/03/24 16:49	RJB
1,1,2-Trichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,1-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,1-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,1-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,2,3-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,2,3-Trichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,2,4-Trichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,2,4-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,2-Dibromo-3-chloropropane (DBCP)	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,2-Dibromoethane (EDB)	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,2-Dichlorobenzene	03	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:49	07/03/24 16:49	RJB
1,2-Dichloroethane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,2-Dichloropropane	03	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:49	07/03/24 16:49	RJB
1,3,5-Trimethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,3-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,3-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
1,4-Dichlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
2,2-Dichloropropane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
2-Butanone (MEK)	03	SW8260D	<10.0 ug/L		10.0	1	07/03/24 16:49	07/03/24 16:49	RJB
2-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
2-Hexanone (MBK)	03	SW8260D	<5.00 ug/L		5.00	1	07/03/24 16:49	07/03/24 16:49	RJB
4-Chlorotoluene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. 4567 Windy Gap

Laboratory Sample ID: 24G0063-03

Grab Date/Time: 06/27/2024 15:20

Field Residual Cl:

Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
4-Methyl-2-pentanone (MIBK)	03	SW8260D	<5.00 ug/L		5.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Acetone	03	SW8260D	<10.0 ug/L		10.0	1	07/03/24 16:49	07/03/24 16:49	RJB
Benzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Bromobenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Bromochloromethane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Bromodichloromethane	03	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:49	07/03/24 16:49	RJB
Bromoform	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Bromomethane	03	SW8260D	<1.00 ug/L	C	1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Carbon disulfide	03	SW8260D	<10.0 ug/L	C	10.0	1	07/03/24 16:49	07/03/24 16:49	RJB
Carbon tetrachloride	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Chlorobenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Chloroethane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Chloroform	03	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:49	07/03/24 16:49	RJB
Chloromethane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
cis-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
cis-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Dibromochloromethane	03	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:49	07/03/24 16:49	RJB
Dibromomethane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Dichlorodifluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Di-isopropyl ether (DIPE)	03	SW8260D	<5.00 ug/L		5.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Ethylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Hexachlorobutadiene	03	SW8260D	<0.80 ug/L		0.80	1	07/03/24 16:49	07/03/24 16:49	RJB
Iodomethane	03	SW8260D	<10.0 ug/L	C	10.0	1	07/03/24 16:49	07/03/24 16:49	RJB
Isopropylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
m+p-Xylenes	03	SW8260D	<2.00 ug/L		2.00	1	07/03/24 16:49	07/03/24 16:49	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
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 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. 4567 Windy Gap Laboratory Sample ID: 24G0063-03

Grab Date/Time: 06/27/2024 15:20

Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	03	SW8260D	<4.00 ug/L		4.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Methyl-t-butyl ether (MTBE)	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Naphthalene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
n-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
n-Propylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
o-Xylene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
sec-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Styrene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
tert-Butylbenzene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Tetrachloroethylene (PCE)	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Toluene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
trans-1,2-Dichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
trans-1,3-Dichloropropene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Trichloroethylene	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Trichlorofluoromethane	03	SW8260D	<1.00 ug/L		1.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Vinyl acetate	03	SW8260D	<10.0 ug/L		10.0	1	07/03/24 16:49	07/03/24 16:49	RJB
Vinyl chloride	03	SW8260D	<0.50 ug/L		0.50	1	07/03/24 16:49	07/03/24 16:49	RJB
Xylenes, Total	03	SW8260D	<3.00 ug/L		3.00	1	07/03/24 16:49	07/03/24 16:49	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	03	SW8260D	98.8 %		70-120		07/03/24 16:49	07/03/24 16:49	RJB
Surr: 4-Bromofluorobenzene (Surr)	03	SW8260D	96.0 %		75-120		07/03/24 16:49	07/03/24 16:49	RJB
Surr: Dibromofluoromethane (Surr)	03	SW8260D	95.9 %		70-130		07/03/24 16:49	07/03/24 16:49	RJB
Surr: Toluene-d8 (Surr)	03	SW8260D	99.8 %		70-130		07/03/24 16:49	07/03/24 16:49	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24G0063-04  
 Grab Date/Time: 06/20/2024 15:25  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	04	SW8260D	<0.40 ug/L		0.40	1	07/03/24 12:56	07/03/24 12:56	RJB
1,1,1-Trichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,1,2,2-Tetrachloroethane	04	SW8260D	<0.40 ug/L		0.40	1	07/03/24 12:56	07/03/24 12:56	RJB
1,1,2-Trichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,1-Dichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,1-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,1-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,2,3-Trichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,2,3-Trichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,2,4-Trichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,2,4-Trimethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,2-Dibromo-3-chloropropane (DBCP)	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,2-Dibromoethane (EDB)	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,2-Dichlorobenzene	04	SW8260D	<0.50 ug/L		0.50	1	07/03/24 12:56	07/03/24 12:56	RJB
1,2-Dichloroethane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,2-Dichloropropane	04	SW8260D	<0.50 ug/L		0.50	1	07/03/24 12:56	07/03/24 12:56	RJB
1,3,5-Trimethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,3-Dichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,3-Dichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
1,4-Dichlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
2,2-Dichloropropane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
2-Butanone (MEK)	04	SW8260D	<10.0 ug/L		10.0	1	07/03/24 12:56	07/03/24 12:56	RJB
2-Chlorotoluene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
2-Hexanone (MBK)	04	SW8260D	<5.00 ug/L		5.00	1	07/03/24 12:56	07/03/24 12:56	RJB
4-Chlorotoluene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24G0063-04  
 Grab Date/Time: 06/20/2024 15:25  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
4-Methyl-2-pentanone (MIBK)	04	SW8260D	<5.00 ug/L		5.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Acetone	04	SW8260D	<10.0 ug/L		10.0	1	07/03/24 12:56	07/03/24 12:56	RJB
Benzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Bromobenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Bromochloromethane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Bromodichloromethane	04	SW8260D	<0.50 ug/L		0.50	1	07/03/24 12:56	07/03/24 12:56	RJB
Bromoform	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Bromomethane	04	SW8260D	<1.00 ug/L	C	1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Carbon disulfide	04	SW8260D	<10.0 ug/L	C	10.0	1	07/03/24 12:56	07/03/24 12:56	RJB
Carbon tetrachloride	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Chlorobenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Chloroethane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Chloroform	04	SW8260D	<0.50 ug/L		0.50	1	07/03/24 12:56	07/03/24 12:56	RJB
Chloromethane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
cis-1,2-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
cis-1,3-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Dibromochloromethane	04	SW8260D	<0.50 ug/L		0.50	1	07/03/24 12:56	07/03/24 12:56	RJB
Dibromomethane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Dichlorodifluoromethane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Di-isopropyl ether (DIPE)	04	SW8260D	<5.00 ug/L		5.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Ethylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Hexachlorobutadiene	04	SW8260D	<0.80 ug/L		0.80	1	07/03/24 12:56	07/03/24 12:56	RJB
Iodomethane	04	SW8260D	<10.0 ug/L	C	10.0	1	07/03/24 12:56	07/03/24 12:56	RJB
Isopropylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
m+p-Xylenes	04	SW8260D	<2.00 ug/L		2.00	1	07/03/24 12:56	07/03/24 12:56	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

Laboratory Order ID: 24G0063

#### Analytical Results

Sample I.D. Trip Blank Laboratory Sample ID: 24G0063-04  
 Grab Date/Time: 06/20/2024 15:25  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	04	SW8260D	<4.00 ug/L		4.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Methyl-t-butyl ether (MTBE)	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Naphthalene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
n-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
n-Propylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
o-Xylene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
sec-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Styrene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
tert-Butylbenzene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Tetrachloroethylene (PCE)	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Toluene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
trans-1,2-Dichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
trans-1,3-Dichloropropene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Trichloroethylene	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Trichlorofluoromethane	04	SW8260D	<1.00 ug/L		1.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Vinyl acetate	04	SW8260D	<10.0 ug/L		10.0	1	07/03/24 12:56	07/03/24 12:56	RJB
Vinyl chloride	04	SW8260D	<0.50 ug/L		0.50	1	07/03/24 12:56	07/03/24 12:56	RJB
Xylenes, Total	04	SW8260D	<3.00 ug/L		3.00	1	07/03/24 12:56	07/03/24 12:56	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	04	SW8260D	107 %		70-120		07/03/24 12:56	07/03/24 12:56	RJB
Surr: 4-Bromofluorobenzene (Surr)	04	SW8260D	97.6 %		75-120		07/03/24 12:56	07/03/24 12:56	RJB
Surr: Dibromofluoromethane (Surr)	04	SW8260D	98.6 %		70-130		07/03/24 12:56	07/03/24 12:56	RJB
Surr: Toluene-d8 (Surr)	04	SW8260D	99.5 %		70-130		07/03/24 12:56	07/03/24 12:56	RJB

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B	Date Issued:	July 08, 2024 12:35
		Project Number:	[none]
		Purchase Order:	
Submitted To:	Lorton VA, 22079 Shanna Hryvniak		
Client Site I.D.:	Coopers Cove Rd		

### Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>		<b>Preparation Method: SW5030B-MS</b>			
24G0063-01	5.00 mL / 5.00 mL	SW8260D	BHG0176	SHG0178	AF40335
24G0063-02	5.00 mL / 5.00 mL	SW8260D	BHG0176	SHG0178	AF40335
24G0063-03	5.00 mL / 5.00 mL	SW8260D	BHG0176	SHG0178	AF40335
24G0063-04	5.00 mL / 5.00 mL	SW8260D	BHG0176	SHG0178	AF40335

### QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>		<b>Preparation Method: SW5030B-MS</b>			
BHG0176-BLK1	5.00 mL / 5.00 mL	SW8260D	BHG0176	SHG0178	AF40335
BHG0176-BS1	5.00 mL / 5.00 mL	SW8260D	BHG0176	SHG0178	AF40335
BHG0176-DUP1	5.00 mL / 5.00 mL	SW8260D	BHG0176	SHG0178	AF40335
BHG0176-MS1	5.00 mL / 5.00 mL	SW8260D	BHG0176	SHG0178	AF40335



## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B	Date Issued:	July 08, 2024 12:35
		Project Number:	[none]
		Purchase Order:	
Submitted To:	Lorton VA, 22079 Shanna Hryvniak		
Client Site I.D.:	Coopers Cove Rd		

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHG0176 - SW5030B-MS

#### Blank (BHG0176-BLK1)

Prepared &amp; Analyzed: 07/03/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B	Date Issued:	July 08, 2024 12:35
		Project Number:	[none]
		Purchase Order:	
Submitted To:	Lorton VA, 22079 Shanna Hryvniak		
Client Site I.D.:	Coopers Cove Rd		

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHG0176 - SW5030B-MS

##### Blank (BHG0176-BLK1)

Prepared &amp; Analyzed: 07/03/2024

Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							
Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	<0.50 ug/L	0.50	ug/L							
Chloromethane	<1.00 ug/L	1.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							
Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHG0176 - SW5030B-MS

##### Blank (BHG0176-BLK1)

Prepared & Analyzed: 07/03/2024

trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							
Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
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Surr: 1,2-Dichloroethane-d4 (Surr)	50.7		ug/L	50.0		101	70-120			
Surr: 4-Bromofluorobenzene (Surr)	48.6		ug/L	50.0		97.2	75-120			
Surr: Dibromofluoromethane (Surr)	48.6		ug/L	50.0		97.2	70-130			
Surr: Toluene-d8 (Surr)	50.0		ug/L	50.0		99.9	70-130			

##### LCS (BHG0176-BS1)

Prepared & Analyzed: 07/03/2024

1,1,1,2-Tetrachloroethane	44.4 ug/L	0.4	ug/L	50.0	ug/L	88.7	80-130			
1,1,1-Trichloroethane	45.1 ug/L	1	ug/L	50.0	ug/L	90.2	65-130			
1,1,2,2-Tetrachloroethane	45.5 ug/L	0.4	ug/L	50.0	ug/L	90.9	65-130			
1,1,2-Trichloroethane	44.5 ug/L	1	ug/L	50.0	ug/L	89.0	75-125			
1,1-Dichloroethane	45.0 ug/L	1	ug/L	50.0	ug/L	90.0	70-135			
1,1-Dichloroethylene	42.4 ug/L	1	ug/L	50.0	ug/L	84.9	70-130			
1,1-Dichloropropene	47.1 ug/L	1	ug/L	50.0	ug/L	94.2	75-135			
1,2,3-Trichlorobenzene	45.4 ug/L	1	ug/L	50.0	ug/L	90.7	55-140			
1,2,3-Trichloropropane	43.2 ug/L	1	ug/L	50.0	ug/L	86.4	75-125			
1,2,4-Trichlorobenzene	43.7 ug/L	1	ug/L	50.0	ug/L	87.4	65-135			
1,2,4-Trimethylbenzene	46.4 ug/L	1	ug/L	50.0	ug/L	92.9	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	45.0 ug/L	1	ug/L	50.0	ug/L	89.9	50-130			
1,2-Dibromoethane (EDB)	44.1 ug/L	1	ug/L	50.0	ug/L	88.1	80-120			
1,2-Dichlorobenzene	45.7 ug/L	0.5	ug/L	50.0	ug/L	91.3	70-120			
1,2-Dichloroethane	41.0 ug/L	1	ug/L	50.0	ug/L	82.0	70-130			
1,2-Dichloropropane	45.3 ug/L	0.5	ug/L	50.0	ug/L	90.6	75-125			
1,3,5-Trimethylbenzene	46.3 ug/L	1	ug/L	50.0	ug/L	92.5	75-125			
1,3-Dichlorobenzene	46.4 ug/L	1	ug/L	50.0	ug/L	92.8	75-125			
1,3-Dichloropropane	43.6 ug/L	1	ug/L	50.0	ug/L	87.3	75-125			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B	Date Issued:	July 08, 2024 12:35
		Project Number:	[none]
		Purchase Order:	
Submitted To:	Lorton VA, 22079 Shanna Hryvniak		
Client Site I.D.:	Coopers Cove Rd		

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHG0176 - SW5030B-MS

##### LCS (BHG0176-BS1)

Prepared & Analyzed: 07/03/2024

1,4-Dichlorobenzene	44.8 ug/L	1	ug/L	50.0	ug/L	89.6	75-125			
2,2-Dichloropropane	50.2 ug/L	1	ug/L	50.0	ug/L	100	70-135			
2-Butanone (MEK)	42.9 ug/L	10	ug/L	50.0	ug/L	85.9	30-150			
2-Chlorotoluene	47.3 ug/L	1	ug/L	50.0	ug/L	94.7	75-125			
2-Hexanone (MBK)	46.4 ug/L	5	ug/L	50.0	ug/L	92.8	55-130			
4-Chlorotoluene	46.5 ug/L	1	ug/L	50.0	ug/L	92.9	75-130			
4-Isopropyltoluene	49.5 ug/L	1	ug/L	50.0	ug/L	99.0	75-130			
4-Methyl-2-pentanone (MIBK)	43.7 ug/L	5	ug/L	50.0	ug/L	87.3	60-135			
Acetone	37.4 ug/L	10	ug/L	50.0	ug/L	74.8	40-140			
Benzene	43.9 ug/L	1	ug/L	50.0	ug/L	87.9	80-120			
Bromobenzene	42.7 ug/L	1	ug/L	50.0	ug/L	85.5	75-125			
Bromochloromethane	42.0 ug/L	1	ug/L	50.0	ug/L	84.1	65-130			
Bromodichloromethane	43.6 ug/L	0.5	ug/L	50.0	ug/L	87.2	75-120			
Bromoform	47.5 ug/L	1	ug/L	50.0	ug/L	94.9	70-130			
Bromomethane	36.3 ug/L	1	ug/L	50.0	ug/L	72.5	30-145			
Carbon disulfide	33.9 ug/L	10	ug/L	50.0	ug/L	67.9	35-160			
Carbon tetrachloride	47.0 ug/L	1	ug/L	50.0	ug/L	94.1	65-140			
Chlorobenzene	43.8 ug/L	1	ug/L	50.0	ug/L	87.5	80-120			
Chloroethane	36.9 ug/L	1	ug/L	50.0	ug/L	73.9	60-135			
Chloroform	43.1 ug/L	0.5	ug/L	50.0	ug/L	86.1	65-135			
Chloromethane	49.1 ug/L	1	ug/L	50.0	ug/L	98.3	40-125			
cis-1,2-Dichloroethylene	43.9 ug/L	1	ug/L	50.0	ug/L	87.9	70-125			
cis-1,3-Dichloropropene	46.2 ug/L	1	ug/L	50.0	ug/L	92.5	70-130			
Dibromochloromethane	44.8 ug/L	0.5	ug/L	50.0	ug/L	89.5	60-135			
Dibromomethane	43.4 ug/L	1	ug/L	50.0	ug/L	86.7	75-125			
Dichlorodifluoromethane	73.9 ug/L	1	ug/L	50.0	ug/L	148	30-155			
Ethylbenzene	44.4 ug/L	1	ug/L	50.0	ug/L	88.9	75-125			
Hexachlorobutadiene	52.7 ug/L	0.8	ug/L	50.0	ug/L	105	50-140			
Isopropylbenzene	41.1 ug/L	1	ug/L	50.0	ug/L	82.2	75-125			
m+p-Xylenes	89.7 ug/L	2	ug/L	100	ug/L	89.7	75-130			
Methylene chloride	41.6 ug/L	4	ug/L	50.0	ug/L	83.2	55-140			



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: July 08, 2024 12:35  
 8382 Terminal Rd, Bay B Project Number: [none]  
 Purchase Order:  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHG0176 - SW5030B-MS

##### LCS (BHG0176-BS1)

Prepared & Analyzed: 07/03/2024

Methyl-t-butyl ether (MTBE)	40.2 ug/L	1	ug/L	50.0	ug/L	80.4	65-125			
Naphthalene	45.1 ug/L	1	ug/L	50.0	ug/L	90.3	55-140			
n-Butylbenzene	51.2 ug/L	1	ug/L	50.0	ug/L	102	70-135			
n-Propylbenzene	47.4 ug/L	1	ug/L	50.0	ug/L	94.8	70-130			
o-Xylene	45.2 ug/L	1	ug/L	50.0	ug/L	90.4	80-120			
sec-Butylbenzene	52.1 ug/L	1	ug/L	50.0	ug/L	104	70-125			
Styrene	43.9 ug/L	1	ug/L	50.0	ug/L	87.8	65-135			
tert-Butylbenzene	47.3 ug/L	1	ug/L	50.0	ug/L	94.6	70-130			
Tetrachloroethylene (PCE)	44.9 ug/L	1	ug/L	50.0	ug/L	89.7	45-150			
Toluene	44.6 ug/L	1	ug/L	50.0	ug/L	89.2	75-120			
trans-1,2-Dichloroethylene	42.3 ug/L	1	ug/L	50.0	ug/L	84.6	60-140			
trans-1,3-Dichloropropene	49.1 ug/L	1	ug/L	50.0	ug/L	98.1	55-140			
Trichloroethylene	44.9 ug/L	1	ug/L	50.0	ug/L	89.8	70-125			
Trichlorofluoromethane	48.8 ug/L	1	ug/L	50.0	ug/L	97.6	60-145			
Vinyl chloride	47.7 ug/L	0.5	ug/L	50.0	ug/L	95.4	50-145			
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Surr: 1,2-Dichloroethane-d4 (Surr)	49.8		ug/L	50.0	ug/L	99.7	70-120			
Surr: 4-Bromofluorobenzene (Surr)	49.7		ug/L	50.0	ug/L	99.3	75-120			
Surr: Dibromofluoromethane (Surr)	49.1		ug/L	50.0	ug/L	98.1	70-130			
Surr: Toluene-d8 (Surr)	50.4		ug/L	50.0	ug/L	101	70-130			

##### Duplicate (BHG0176-DUP1)

Source: 24G0063-02

Prepared & Analyzed: 07/03/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40	ug/L			NA	30	
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40	ug/L			NA	30	
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: July 08, 2024 12:35  
 8382 Terminal Rd, Bay B Project Number: [none]  
 Purchase Order:  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHG0176 - SW5030B-MS

##### Duplicate (BHG0176-DUP1)

Source: 24G0063-02

Prepared & Analyzed: 07/03/2024

1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Acetone	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Benzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromochloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromodichloromethane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Bromoform	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Carbon disulfide	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroform	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Chloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton Date Issued: July 08, 2024 12:35  
 8382 Terminal Rd, Bay B Project Number: [none]  
 Purchase Order:  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHG0176 - SW5030B-MS

##### Duplicate (BHG0176-DUP1)

Source: 24G0063-02

Prepared & Analyzed: 07/03/2024

Dibromochloromethane	<0.50 ug/L	0.50	ug/L		<0.50 ug/L			NA	30	
Dibromomethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L		<5.00 ug/L			NA	30	
Ethylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L		<0.80 ug/L			NA	30	
Iodomethane	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
Isopropylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
m+p-Xylenes	<2.00 ug/L	2.00	ug/L		<2.00 ug/L			NA	30	
Methylene chloride	<4.00 ug/L	4.00	ug/L		<4.00 ug/L			NA	30	
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Naphthalene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
n-Butylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
n-Propylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
o-Xylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Styrene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Toluene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Trichloroethylene	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L		<1.00 ug/L			NA	30	
Vinyl acetate	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
Vinyl chloride	<0.50 ug/L	0.50	ug/L		<0.50 ug/L			NA	30	
Xylenes, Total	<3.00 ug/L	3.00	ug/L		<3.00 ug/L			NA	30	
Tetrahydrofuran	<10.0 ug/L	10.0	ug/L		<10.0 ug/L			NA	30	
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Surr: 1,2-Dichloroethane-d4 (Surr)	49.9		ug/L	50.0	ug/L	99.8	70-120			
Surr: 4-Bromofluorobenzene (Surr)	48.6		ug/L	50.0	ug/L	97.3	75-120			
Surr: Dibromofluoromethane (Surr)	49.2		ug/L	50.0	ug/L	98.3	70-130			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B	Date Issued:	July 08, 2024 12:35
		Project Number:	[none]
		Purchase Order:	
Submitted To:	Lorton VA, 22079 Shanna Hryvniak		
Client Site I.D.:	Coopers Cove Rd		

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHG0176 - SW5030B-MS

<b>Duplicate (BHG0176-DUP1)</b>	<b>Source: 24G0063-02</b>	<b>Prepared &amp; Analyzed: 07/03/2024</b>
<i>Surr: Toluene-d8 (Surr)</i>	50.0	ug/L
	50.0	ug/L
	99.9	70-130

<b>Matrix Spike (BHG0176-MS1)</b>	<b>Source: 24G0063-01</b>	<b>Prepared &amp; Analyzed: 07/03/2024</b>				
1,1,1,2-Tetrachloroethane	45.4 ug/L	0.4 ug/L	50.0	<0.4 ug/L	90.9	80-130
1,1,1-Trichloroethane	46.2 ug/L	1 ug/L	50.0	<1 ug/L	92.4	65-130
1,1,2,2-Tetrachloroethane	46.6 ug/L	0.4 ug/L	50.0	<0.4 ug/L	93.1	65-130
1,1,2-Trichloroethane	46.0 ug/L	1 ug/L	50.0	<1 ug/L	92.1	75-125
1,1-Dichloroethane	45.9 ug/L	1 ug/L	50.0	<1 ug/L	91.8	70-135
1,1-Dichloroethylene	43.6 ug/L	1 ug/L	50.0	<1 ug/L	87.2	50-145
1,1-Dichloropropene	49.1 ug/L	1 ug/L	50.0	<1 ug/L	98.1	75-135
1,2,3-Trichlorobenzene	49.0 ug/L	1 ug/L	50.0	<1 ug/L	98.0	55-140
1,2,3-Trichloropropane	43.9 ug/L	1 ug/L	50.0	<1 ug/L	87.9	75-125
1,2,4-Trichlorobenzene	46.2 ug/L	1 ug/L	50.0	<1 ug/L	92.5	65-135
1,2,4-Trimethylbenzene	47.7 ug/L	1 ug/L	50.0	<1 ug/L	95.3	75-130
1,2-Dibromo-3-chloropropane (DBCP)	47.2 ug/L	1 ug/L	50.0	<1 ug/L	94.4	50-130
1,2-Dibromoethane (EDB)	45.4 ug/L	1 ug/L	50.0	<1 ug/L	90.9	80-120
1,2-Dichlorobenzene	46.8 ug/L	0.5 ug/L	50.0	<0.5 ug/L	93.7	70-120
1,2-Dichloroethane	42.0 ug/L	1 ug/L	50.0	<1 ug/L	84.0	70-130
1,2-Dichloropropane	47.2 ug/L	0.5 ug/L	50.0	<0.5 ug/L	94.5	75-125
1,3,5-Trimethylbenzene	47.6 ug/L	1 ug/L	50.0	<1 ug/L	95.1	75-124
1,3-Dichlorobenzene	47.7 ug/L	1 ug/L	50.0	<1 ug/L	95.4	75-125
1,3-Dichloropropane	45.0 ug/L	1 ug/L	50.0	<1 ug/L	90.0	75-125
1,4-Dichlorobenzene	46.7 ug/L	1 ug/L	50.0	<1 ug/L	93.4	75-125
2,2-Dichloropropane	51.8 ug/L	1 ug/L	50.0	<1 ug/L	104	70-135
2-Butanone (MEK)	33.9 ug/L	10 ug/L	50.0	<10 ug/L	67.8	30-150
2-Chlorotoluene	49.3 ug/L	1 ug/L	50.0	<1 ug/L	98.6	75-125
2-Hexanone (MBK)	40.3 ug/L	5 ug/L	50.0	<5 ug/L	80.7	55-130
4-Chlorotoluene	48.2 ug/L	1 ug/L	50.0	<1 ug/L	96.5	75-130
4-Isopropyltoluene	51.6 ug/L	1 ug/L	50.0	<1 ug/L	103	75-130
4-Methyl-2-pentanone (MIBK)	39.7 ug/L	5 ug/L	50.0	<5 ug/L	79.5	60-135
Acetone	36.2 ug/L	10 ug/L	50.0	<10 ug/L	72.4	40-140
Benzene	45.8 ug/L	1 ug/L	50.0	<1 ug/L	91.6	80-120





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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B	Date Issued:	July 08, 2024 12:35
		Project Number:	[none]
		Purchase Order:	
Submitted To:	Lorton VA, 22079 Shanna Hryvniak		
Client Site I.D.:	Coopers Cove Rd		

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHG0176 - SW5030B-MS

Matrix Spike (BHG0176-MS1)	Source: 24G0063-01			Prepared & Analyzed: 07/03/2024						
Bromobenzene	44.0 ug/L	1	ug/L	50.0	<1 ug/L	88.0	75-125			
Bromochloromethane	42.6 ug/L	1	ug/L	50.0	<1 ug/L	85.1	65-130			
Bromodichloromethane	45.1 ug/L	0.5	ug/L	50.0	<0.5 ug/L	90.3	75-136			
Bromoform	48.3 ug/L	1	ug/L	50.0	<1 ug/L	96.7	70-130			
Bromomethane	38.9 ug/L	1	ug/L	50.0	<1 ug/L	77.7	30-145			
Carbon disulfide	30.7 ug/L	10	ug/L	50.0	<10 ug/L	61.4	35-160			
Carbon tetrachloride	49.6 ug/L	1	ug/L	50.0	<1 ug/L	99.2	65-140			
Chlorobenzene	45.1 ug/L	1	ug/L	50.0	<1 ug/L	90.3	80-120			
Chloroethane	38.0 ug/L	1	ug/L	50.0	<1 ug/L	76.1	60-135			
Chloroform	43.5 ug/L	0.5	ug/L	50.0	<0.5 ug/L	87.0	65-135			
Chloromethane	50.9 ug/L	1	ug/L	50.0	<1 ug/L	102	40-125			
cis-1,2-Dichloroethylene	45.8 ug/L	1	ug/L	50.0	<1 ug/L	91.5	70-125			
cis-1,3-Dichloropropene	47.0 ug/L	1	ug/L	50.0	<1 ug/L	94.0	47-136			
Dibromochloromethane	45.6 ug/L	0.5	ug/L	50.0	<0.5 ug/L	91.2	60-135			
Dibromomethane	45.1 ug/L	1	ug/L	50.0	<1 ug/L	90.2	75-125			
Dichlorodifluoromethane	77.0 ug/L	1	ug/L	50.0	<1 ug/L	154	30-155			
Ethylbenzene	46.3 ug/L	1	ug/L	50.0	<1 ug/L	92.7	75-125			
Hexachlorobutadiene	56.4 ug/L	0.8	ug/L	50.0	<0.8 ug/L	113	50-140			
Isopropylbenzene	43.1 ug/L	1	ug/L	50.0	<1 ug/L	86.2	75-125			
m+p-Xylenes	92.4 ug/L	2	ug/L	100	<2 ug/L	92.4	75-130			
Methylene chloride	41.2 ug/L	4	ug/L	50.0	<4 ug/L	82.0	55-140			
Methyl-t-butyl ether (MTBE)	40.4 ug/L	1	ug/L	50.0	<1 ug/L	80.9	65-125			
Naphthalene	47.8 ug/L	1	ug/L	50.0	<1 ug/L	95.6	55-140			
n-Butylbenzene	52.8 ug/L	1	ug/L	50.0	<1 ug/L	106	70-135			
n-Propylbenzene	49.7 ug/L	1	ug/L	50.0	<1 ug/L	99.3	70-130			
o-Xylene	46.5 ug/L	1	ug/L	50.0	<1 ug/L	92.9	80-120			
sec-Butylbenzene	54.3 ug/L	1	ug/L	50.0	<1 ug/L	109	70-125			
Styrene	45.5 ug/L	1	ug/L	50.0	<1 ug/L	91.0	65-135			
tert-Butylbenzene	49.3 ug/L	1	ug/L	50.0	<1 ug/L	98.5	70-130			
Tetrachloroethylene (PCE)	47.7 ug/L	1	ug/L	50.0	<1 ug/L	95.5	51-231			
Toluene	46.2 ug/L	1	ug/L	50.0	<1 ug/L	92.3	75-120			



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd

Date Issued: July 08, 2024 12:35  
 Project Number: [none]  
 Purchase Order:

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	------

#### Batch BHG0176 - SW5030B-MS

##### Matrix Spike (BHG0176-MS1)

Source: 24G0063-01

Prepared & Analyzed: 07/03/2024

trans-1,2-Dichloroethylene	43.9 ug/L	1	ug/L	50.0	<1 ug/L	87.8	60-140			
trans-1,3-Dichloropropene	50.4 ug/L	1	ug/L	50.0	<1 ug/L	101	55-140			
Trichloroethylene	47.0 ug/L	1	ug/L	50.0	<1 ug/L	93.9	70-125			
Trichlorofluoromethane	51.0 ug/L	1	ug/L	50.0	<1 ug/L	102	60-145			
Vinyl chloride	48.5 ug/L	0.5	ug/L	50.0	<0.5 ug/L	96.9	50-145			
-----										
Surr: 1,2-Dichloroethane-d4 (Surr)	48.5		ug/L	50.0	ug/L	96.9	70-120			
Surr: 4-Bromofluorobenzene (Surr)	49.3		ug/L	50.0	ug/L	98.6	75-120			
Surr: Dibromofluoromethane (Surr)	48.3		ug/L	50.0	ug/L	96.6	70-130			
Surr: Toluene-d8 (Surr)	51.0		ug/L	50.0	ug/L	102	70-130			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	July 08, 2024 12:35
Submitted To:	Shanna Hryvniak	Project Number:	[none]
Client Site I.D.:	Coopers Cove Rd	Purchase Order:	

### Certified Analyses included in this Report

Analyte	Certifications
<b>SW8260D in Non-Potable Water</b>	
1,1,1,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,1-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromoethane (EDB)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,3,5-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,4-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
2,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
2-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
2-Hexanone (MBK)	VELAP,NCDEQ,PADEP,WVDEP
4-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Isopropyltoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Methyl-2-pentanone (MIBK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Bromobenzene	VELAP,NCDEQ,PADEP,WVDEP
Bromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromodichloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromoform	VELAP,NCDEQ,PADEP,WVDEP
Bromomethane	VELAP,NCDEQ,PADEP,WVDEP
Carbon disulfide	VELAP,NCDEQ,PADEP,WVDEP
Carbon tetrachloride	VELAP,NCDEQ,PADEP,WVDEP
Chlorobenzene	VELAP,NCDEQ,PADEP,WVDEP

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	July 08, 2024 12:35
Submitted To:	Shanna Hryvniak	Project Number:	[none]
Client Site I.D.:	Coopers Cove Rd	Purchase Order:	

### Certified Analyses included in this Report

Analyte	Certifications
Chloroethane	VELAP,NCDEQ,PADEP,WVDEP
Chloroform	VELAP,NCDEQ,PADEP,WVDEP
Chloromethane	VELAP,NCDEQ,PADEP,WVDEP
cis-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
cis-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Dibromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Dibromomethane	VELAP,NCDEQ,PADEP,WVDEP
Dichlorodifluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Di-isopropyl ether (DIPE)	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Hexachlorobutadiene	VELAP,NCDEQ,PADEP,WVDEP
Iodomethane	VELAP,NCDEQ,PADEP,WVDEP
Isopropylbenzene	VELAP,NCDEQ,PADEP,WVDEP
m+p-Xylenes	VELAP,NCDEQ,PADEP,WVDEP
Methylene chloride	VELAP,NCDEQ,PADEP,WVDEP
Methyl-t-butyl ether (MTBE)	VELAP,NCDEQ,PADEP,WVDEP
Naphthalene	VELAP,NCDEQ,PADEP,WVDEP
n-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
n-Propylbenzene	VELAP,NCDEQ,PADEP,WVDEP
o-Xylene	VELAP,NCDEQ,PADEP,WVDEP
sec-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Styrene	VELAP,NCDEQ,PADEP,WVDEP
tert-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Tetrachloroethylene (PCE)	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Trichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
Trichlorofluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Vinyl acetate	VELAP,NCDEQ,PADEP,WVDEP
Vinyl chloride	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP



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### Certificate of Analysis

*Final Report*

Client Name: Total Environmental Concepts-Lorton      Date Issued: July 08, 2024 12:35  
8382 Terminal Rd, Bay B      Project Number: [none]  
Lorton VA, 22079      Purchase Order:  
Submitted To: Shanna Hryvniak  
Client Site I.D.: Coopers Cove Rd

Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2024
NYDOH	New York DOH Drinking Water	12069	04/01/2025
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
TXCEQ	Texas Comm on Environmental Quality #T104704	T104704576	05/31/2025
VELAP	NELAP-Virginia Certificate #12969	460021	06/14/2025
WVDEP	West Virginia DEP	350	11/30/2024



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## Certificate of Analysis

### *Final Report*

Client Name: Total Environmental Concepts-Lorton      Date Issued: July 08, 2024 12:35  
8382 Terminal Rd, Bay B      Project Number: [none]  
Lorton VA, 22079      Purchase Order:  
Submitted To: Shanna Hryvniak  
Client Site I.D.: Coopers Cove Rd

### Summary of Data Qualifiers

C Continuing calibration verification response for this analyte is outside specifications.  
RPD Relative Percent Difference  
Qual Qualifiers  
-RE Denotes sample was re-analyzed  
D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.  
TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.  
PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.





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### Certificate of Analysis

#### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	July 08, 2024 12:35
Submitted To:	Shanna Hryvniak	Project Number:	[none]
Client Site I.D.:	Coopers Cove Rd	Purchase Order:	

### Sample Conditions Checklist

Samples Received at:	1.30°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	No
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	Yes
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes





**Attachment H**

**Laboratory Analytical Report (6/13/2024)**



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## Certificate of Analysis

*Final Report*

Laboratory Order ID 24F0919

Client Name:	Total Environmental Concepts-Lorton	Date Received:	June 14, 2024 13:10
	8382 Terminal Rd, Bay B	Date Issued:	June 21, 2024 14:08
	Lorton, VA 22079	Project Number:	4260177
Submitted To:	Shanna Hryvniak	Purchase Order:	4260177-001
Client Site I.D.:	Coopers Cove Rd., Hardy, VA		

Enclosed are the results of analyses for samples received by the laboratory on 06/14/2024 13:10. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

A handwritten signature in black ink that reads 'Sarah R. Endsley'.

Sarah R. Endsley  
Laboratory Manager

### End Notes:

The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton      Date Issued: June 21, 2024 14:08  
8382 Terminal Rd, Bay B      Project Number: 4260177  
Lorton VA, 22079      Purchase Order: 4260177-001  
Submitted To: Shanna Hryvniak  
Client Site I.D.: Coopers Cove Rd., Hardy, VA

### ANALYTICAL REPORT FOR SAMPLES

Laboratory Order ID 24F0919

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
5409 Windermere Way	24F0919-01	Ground Water	06/13/2024 14:30	06/14/2024 13:10



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy, VA

Date Issued: June 21, 2024 14:08  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0919

### Analytical Results

Sample I.D. 5409 Windermere Way Laboratory Sample ID: 24F0919-01  
 Grab Date/Time: 06/13/2024 14:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
1,1,1,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	06/18/24 18:26	06/18/24 18:26	RJB
1,1,1-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,1,2,2-Tetrachloroethane	01	SW8260D	<0.40 ug/L		0.40	1	06/18/24 18:26	06/18/24 18:26	RJB
1,1,2-Trichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,1-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,1-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,1-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,2,3-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,2,3-Trichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,2,4-Trichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,2,4-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,2-Dibromoethane (EDB)	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,2-Dichlorobenzene	01	SW8260D	<0.50 ug/L		0.50	1	06/18/24 18:26	06/18/24 18:26	RJB
1,2-Dichloroethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,2-Dichloropropane	01	SW8260D	<0.50 ug/L		0.50	1	06/18/24 18:26	06/18/24 18:26	RJB
1,3,5-Trimethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,3-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,3-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
1,4-Dichlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
2,2-Dichloropropane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
2-Butanone (MEK)	01	SW8260D	<10.0 ug/L		10.0	1	06/18/24 18:26	06/18/24 18:26	RJB
2-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
2-Hexanone (MBK)	01	SW8260D	<5.00 ug/L		5.00	1	06/18/24 18:26	06/18/24 18:26	RJB
4-Chlorotoluene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy, VA

Date Issued: June 21, 2024 14:08  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0919

#### Analytical Results

Sample I.D. 5409 Windermere Way Laboratory Sample ID: 24F0919-01  
 Grab Date/Time: 06/13/2024 14:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
4-Isopropyltoluene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
4-Methyl-2-pentanone (MIBK)	01	SW8260D	<5.00 ug/L		5.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Acetone	01	SW8260D	<10.0 ug/L		10.0	1	06/18/24 18:26	06/18/24 18:26	RJB
Benzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Bromobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Bromochloromethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Bromodichloromethane	01	SW8260D	<0.50 ug/L		0.50	1	06/18/24 18:26	06/18/24 18:26	RJB
Bromoform	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Bromomethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Carbon disulfide	01	SW8260D	<10.0 ug/L		10.0	1	06/18/24 18:26	06/18/24 18:26	RJB
Carbon tetrachloride	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Chlorobenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Chloroethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
<b>Chloroform</b>	01	SW8260D	<b>0.73 ug/L</b>		0.50	1	06/18/24 18:26	06/18/24 18:26	RJB
Chloromethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
cis-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
cis-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Dibromochloromethane	01	SW8260D	<0.50 ug/L		0.50	1	06/18/24 18:26	06/18/24 18:26	RJB
Dibromomethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Dichlorodifluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Di-isopropyl ether (DIPE)	01	SW8260D	<5.00 ug/L		5.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Ethylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Hexachlorobutadiene	01	SW8260D	<0.80 ug/L		0.80	1	06/18/24 18:26	06/18/24 18:26	RJB
Iodomethane	01	SW8260D	<10.0 ug/L		10.0	1	06/18/24 18:26	06/18/24 18:26	RJB
Isopropylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
m+p-Xylenes	01	SW8260D	<2.00 ug/L		2.00	1	06/18/24 18:26	06/18/24 18:26	RJB



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy, VA

Date Issued: June 21, 2024 14:08  
 Project Number: 4260177  
 Purchase Order: 4260177-001

Laboratory Order ID: 24F0919

### Analytical Results

Sample I.D. 5409 Windermere Way Laboratory Sample ID: 24F0919-01  
 Grab Date/Time: 06/13/2024 14:30  
 Field Residual Cl: Field pH:

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Volatile Organic Compounds by GCMS</b>									
Methylene chloride	01	SW8260D	<4.00 ug/L		4.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Methyl-t-butyl ether (MTBE)	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Naphthalene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
n-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
n-Propylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
o-Xylene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
sec-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Styrene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
tert-Butylbenzene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Tetrachloroethylene (PCE)	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Toluene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
trans-1,2-Dichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
trans-1,3-Dichloropropene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Trichloroethylene	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Trichlorofluoromethane	01	SW8260D	<1.00 ug/L		1.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Vinyl acetate	01	SW8260D	<10.0 ug/L		10.0	1	06/18/24 18:26	06/18/24 18:26	RJB
Vinyl chloride	01	SW8260D	<0.50 ug/L		0.50	1	06/18/24 18:26	06/18/24 18:26	RJB
Xylenes, Total	01	SW8260D	<3.00 ug/L		3.00	1	06/18/24 18:26	06/18/24 18:26	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	01	SW8260D	90.3 %		70-120		06/18/24 18:26	06/18/24 18:26	RJB
Surr: 4-Bromofluorobenzene (Surr)	01	SW8260D	99.3 %		75-120		06/18/24 18:26	06/18/24 18:26	RJB
Surr: Dibromofluoromethane (Surr)	01	SW8260D	94.5 %		70-130		06/18/24 18:26	06/18/24 18:26	RJB
Surr: Toluene-d8 (Surr)	01	SW8260D	98.7 %		70-130		06/18/24 18:26	06/18/24 18:26	RJB

### Micro-extractables by GC/ECD



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

**Laboratory Order ID: 24F0919**

#### Analytical Results

Sample I.D. 5409 Windermere Way	Laboratory Sample ID: 24F0919-01
Grab Date/Time: 06/13/2024 14:30	Field pH:
Field Residual Cl:	

Parameter	Samp ID	Method	Result	Qual	Reporting Limit	D.F.	Sample Prep Date/Time	Analysis Date/Time	Analyst
<b>Micro-extractables by GC/ECD</b>									
1,2-Dibromoethane (EDB)	01	SW8011	<0.010 ug/L		0.010	1	06/18/24 13:45	06/19/24 00:49	ATG
1,2,3-Trichloropropane	01	SW8011	<0.010 ug/L		0.010	1	06/18/24 13:45	06/19/24 00:49	ATG
1,2-Dibromo-3-chloropropane (DBCP)	01	SW8011	<0.010 ug/L		0.010	1	06/18/24 13:45	06/19/24 00:49	ATG

#### Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>					
24F0919-01	5.00 mL / 5.00 mL	SW8260D	BHF0649	SHF0626	AF40246
<b>Preparation Method: SW5030B-MS</b>					
<b>Micro-extractables by GC/ECD</b>					
24F0919-01	60.2 mL / 2.00 mL	SW8011	BHF0655	SHF0668	AF40250
<b>Preparation Method: SW8011</b>					

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

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### QC Analytical Summary

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Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Volatile Organic Compounds by GCMS</b>			<b>Preparation Method: SW5030B-MS</b>		
BHF0649-BLK1	5.00 mL / 5.00 mL	SW8260D	BHF0649	SHF0626	AF40246
BHF0649-BS1	5.00 mL / 5.00 mL	SW8260D	BHF0649	SHF0626	AF40246
BHF0649-DUP1	5.00 mL / 5.00 mL	SW8260D	BHF0649	SHF0626	AF40246
BHF0649-MS1	5.00 mL / 5.00 mL	SW8260D	BHF0649	SHF0626	AF40246

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
<b>Micro-extractables by GC/ECD</b>			<b>Preparation Method: SW8011</b>		
BHF0655-BLK1	60.0 mL / 2.00 mL	SW8011	BHF0655	SHF0668	AF40250
BHF0655-BS1	60.0 mL / 2.00 mL	SW8011	BHF0655	SHF0668	AF40250
BHF0655-MS1	59.3 mL / 2.00 mL	SW8011	BHF0655	SHF0668	AF40250
BHF0655-MSD1	59.4 mL / 2.00 mL	SW8011	BHF0655	SHF0668	AF40250



## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

#### Blank (BHF0649-BLK1)

Prepared &amp; Analyzed: 06/18/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L							
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L							
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L							
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L							
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L							
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L							
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L							
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L							
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L							
1,4-Dioxane	<80.0 ug/L	80.0	ug/L							
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L							
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L							
2-Chloroethyl vinyl ether	<10.0 ug/L	10.0	ug/L							
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L							
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L							
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L							
Acetone	<10.0 ug/L	10.0	ug/L							
Acetonitrile	<10.0 ug/L	10.0	ug/L							



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## Certificate of Analysis

### Final Report

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Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

#### Blank (BHF0649-BLK1)

Prepared & Analyzed: 06/18/2024

Acrolein	<10.0 ug/L	10.0	ug/L							
Acrylonitrile	<5.00 ug/L	5.00	ug/L							
Allyl chloride	<1.00 ug/L	1.00	ug/L							
Benzene	<1.00 ug/L	1.00	ug/L							
Bromobenzene	<1.00 ug/L	1.00	ug/L							
Bromochloromethane	<1.00 ug/L	1.00	ug/L							
Bromodichloromethane	<0.50 ug/L	0.50	ug/L							
Bromoform	<1.00 ug/L	1.00	ug/L							
Bromomethane	<1.00 ug/L	1.00	ug/L							
Carbon disulfide	<10.0 ug/L	10.0	ug/L							
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L							
Chlorobenzene	<1.00 ug/L	1.00	ug/L							
Chloroethane	<1.00 ug/L	1.00	ug/L							
Chloroform	<0.50 ug/L	0.50	ug/L							
Chloromethane	<1.00 ug/L	1.00	ug/L							
Chloroprene	<5.00 ug/L	5.00	ug/L							
cis-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
Cyclohexane	<1.00 ug/L	1.00	ug/L							
Dibromochloromethane	<0.50 ug/L	0.50	ug/L							
Dibromomethane	<1.00 ug/L	1.00	ug/L							
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L							
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L							
Ethanol	<80.0 ug/L	80.0	ug/L							
Ethyl methacrylate	<5.00 ug/L	5.00	ug/L							
Ethylbenzene	<1.00 ug/L	1.00	ug/L							
Ethyl-t-butyl ether (ETBE)	<25.0 ug/L	25.0	ug/L							
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L							
Iodomethane	<10.0 ug/L	10.0	ug/L							
Isopropylbenzene	<1.00 ug/L	1.00	ug/L							
m+p-Xylenes	<2.00 ug/L	2.00	ug/L							



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

#### Blank (BHF0649-BLK1)

Prepared & Analyzed: 06/18/2024

Methacrylonitrile	<1.50 ug/L	1.50	ug/L							
Methyl acetate	<4.00 ug/L	4.00	ug/L							
Methyl cyclohexane	<1.00 ug/L	1.00	ug/L							
Methyl methacrylate	<2.00 ug/L	2.00	ug/L							
Methylene chloride	<4.00 ug/L	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L							
Naphthalene	<1.00 ug/L	1.00	ug/L							
n-Butylbenzene	<1.00 ug/L	1.00	ug/L							
n-Propylbenzene	<1.00 ug/L	1.00	ug/L							
o-Xylene	<1.00 ug/L	1.00	ug/L							
Pentachloroethane	<10.0 ug/L	10.0	ug/L							
Propionitrile	<40.0 ug/L	40.0	ug/L							
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Styrene	<1.00 ug/L	1.00	ug/L							
TAAE	<5.00 ug/L	5.00	ug/L							
TAME	<5.00 ug/L	5.00	ug/L							
TBA	<100 ug/L	100	ug/L							
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L							
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L							
Toluene	<1.00 ug/L	1.00	ug/L							
trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L							
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L							
trans-1,4-Dichloro-2-butene	<4.00 ug/L	4.00	ug/L							
Trichloroethylene	<1.00 ug/L	1.00	ug/L							
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L							
Vinyl acetate	<10.0 ug/L	10.0	ug/L							
Vinyl chloride	<0.50 ug/L	0.50	ug/L							
Xylenes, Total	<3.00 ug/L	3.00	ug/L							
Diethyl ether	<5.00 ug/L	5.00	ug/L							
<hr/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	49.3		ug/L	50.0		98.6	70-120			
Surr: 4-Bromofluorobenzene (Surr)	51.5		ug/L	50.0		103	75-120			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

##### Blank (BHF0649-BLK1)

Prepared &amp; Analyzed: 06/18/2024

Surr: Dibromofluoromethane (Surr)	45.8	ug/L	50.0	91.6	70-130
Surr: Toluene-d8 (Surr)	49.6	ug/L	50.0	99.2	70-130

##### LCS (BHF0649-BS1)

Prepared &amp; Analyzed: 06/18/2024

1,1,1,2-Tetrachloroethane	55.8 ug/L	0.4	ug/L	50.0	ug/L	112	80-130
1,1,1-Trichloroethane	50.4 ug/L	1	ug/L	50.0	ug/L	101	65-130
1,1,2,2-Tetrachloroethane	54.4 ug/L	0.4	ug/L	50.0	ug/L	109	65-130
1,1,2-Trichloroethane	48.8 ug/L	1	ug/L	50.0	ug/L	97.6	75-125
1,1-Dichloroethane	48.4 ug/L	1	ug/L	50.0	ug/L	96.7	70-135
1,1-Dichloroethylene	48.5 ug/L	1	ug/L	50.0	ug/L	97.1	70-130
1,1-Dichloropropene	53.3 ug/L	1	ug/L	50.0	ug/L	107	75-135
1,2,3-Trichlorobenzene	53.7 ug/L	1	ug/L	50.0	ug/L	107	55-140
1,2,3-Trichloropropane	51.5 ug/L	1	ug/L	50.0	ug/L	103	75-125
1,2,4-Trichlorobenzene	54.1 ug/L	1	ug/L	50.0	ug/L	108	65-135
1,2,4-Trimethylbenzene	53.5 ug/L	1	ug/L	50.0	ug/L	107	75-130
1,2-Dibromo-3-chloropropane (DBCP)	52.2 ug/L	1	ug/L	50.0	ug/L	104	50-130
1,2-Dibromoethane (EDB)	56.8 ug/L	1	ug/L	50.0	ug/L	114	80-120
1,2-Dichlorobenzene	56.8 ug/L	0.5	ug/L	50.0	ug/L	114	70-120
1,2-Dichloroethane	45.0 ug/L	1	ug/L	50.0	ug/L	90.1	70-130
1,2-Dichloropropane	53.6 ug/L	0.5	ug/L	50.0	ug/L	107	75-125
1,3,5-Trimethylbenzene	54.7 ug/L	1	ug/L	50.0	ug/L	109	75-125
1,3-Dichlorobenzene	54.9 ug/L	1	ug/L	50.0	ug/L	110	75-125
1,3-Dichloropropane	53.4 ug/L	1	ug/L	50.0	ug/L	107	75-125
1,4-Dichlorobenzene	54.6 ug/L	1	ug/L	50.0	ug/L	109	75-125
2,2-Dichloropropane	54.5 ug/L	1	ug/L	50.0	ug/L	109	70-135
2-Butanone (MEK)	36.9 ug/L	10	ug/L	50.0	ug/L	73.9	30-150
2-Chlorotoluene	54.8 ug/L	1	ug/L	50.0	ug/L	110	75-125
2-Hexanone (MBK)	36.0 ug/L	5	ug/L	50.0	ug/L	71.9	55-130
4-Chlorotoluene	57.0 ug/L	1	ug/L	50.0	ug/L	114	75-130
4-Isopropyltoluene	58.8 ug/L	1	ug/L	50.0	ug/L	118	75-130
4-Methyl-2-pentanone (MIBK)	40.6 ug/L	5	ug/L	50.0	ug/L	81.2	60-135
Acetone	37.3 ug/L	10	ug/L	50.0	ug/L	74.6	40-140



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy, VA

Date Issued: June 21, 2024 14:08  
 Project Number: 4260177  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

#### LCS (BHF0649-BS1)

Prepared & Analyzed: 06/18/2024

Benzene	52.2 ug/L	1	ug/L	50.0	ug/L	104	80-120			
Bromobenzene	53.7 ug/L	1	ug/L	50.0	ug/L	107	75-125			
Bromochloromethane	50.2 ug/L	1	ug/L	50.0	ug/L	100	65-130			
Bromodichloromethane	51.6 ug/L	0.5	ug/L	50.0	ug/L	103	75-120			
Bromoform	48.8 ug/L	1	ug/L	50.0	ug/L	97.6	70-130			
Bromomethane	37.1 ug/L	1	ug/L	50.0	ug/L	74.1	30-145			
Carbon disulfide	39.2 ug/L	10	ug/L	50.0	ug/L	78.5	35-160			
Carbon tetrachloride	56.5 ug/L	1	ug/L	50.0	ug/L	113	65-140			
Chlorobenzene	55.4 ug/L	1	ug/L	50.0	ug/L	111	80-120			
Chloroethane	41.3 ug/L	1	ug/L	50.0	ug/L	82.6	60-135			
Chloroform	48.6 ug/L	0.5	ug/L	50.0	ug/L	97.3	65-135			
Chloromethane	42.1 ug/L	1	ug/L	50.0	ug/L	84.2	40-125			
cis-1,2-Dichloroethylene	49.7 ug/L	1	ug/L	50.0	ug/L	99.4	70-125			
cis-1,3-Dichloropropene	54.6 ug/L	1	ug/L	50.0	ug/L	109	70-130			
Dibromochloromethane	50.7 ug/L	0.5	ug/L	50.0	ug/L	101	60-135			
Dibromomethane	54.3 ug/L	1	ug/L	50.0	ug/L	109	75-125			
Dichlorodifluoromethane	38.6 ug/L	1	ug/L	50.0	ug/L	77.2	30-155			
Ethylbenzene	54.6 ug/L	1	ug/L	50.0	ug/L	109	75-125			
Hexachlorobutadiene	59.3 ug/L	0.8	ug/L	50.0	ug/L	119	50-140			
Isopropylbenzene	52.1 ug/L	1	ug/L	50.0	ug/L	104	75-125			
m+p-Xylenes	112 ug/L	2	ug/L	100	ug/L	112	75-130			
Methylene chloride	46.3 ug/L	4	ug/L	50.0	ug/L	92.6	55-140			
Methyl-t-butyl ether (MTBE)	44.3 ug/L	1	ug/L	50.0	ug/L	88.5	65-125			
Naphthalene	52.3 ug/L	1	ug/L	50.0	ug/L	105	55-140			
n-Butylbenzene	59.1 ug/L	1	ug/L	50.0	ug/L	118	70-135			
n-Propylbenzene	57.0 ug/L	1	ug/L	50.0	ug/L	114	70-130			
o-Xylene	54.4 ug/L	1	ug/L	50.0	ug/L	109	80-120			
sec-Butylbenzene	59.6 ug/L	1	ug/L	50.0	ug/L	119	70-125			
Styrene	54.5 ug/L	1	ug/L	50.0	ug/L	109	65-135			
tert-Butylbenzene	56.8 ug/L	1	ug/L	50.0	ug/L	114	70-130			
Tetrachloroethylene (PCE)	57.0 ug/L	1	ug/L	50.0	ug/L	114	45-150			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

##### LCS (BHF0649-BS1)

Prepared &amp; Analyzed: 06/18/2024

Toluene	51.7 ug/L	1	ug/L	50.0	ug/L	103	75-120			
trans-1,2-Dichloroethylene	49.4 ug/L	1	ug/L	50.0	ug/L	98.7	60-140			
trans-1,3-Dichloropropene	58.0 ug/L	1	ug/L	50.0	ug/L	116	55-140			
Trichloroethylene	50.6 ug/L	1	ug/L	50.0	ug/L	101	70-125			
Trichlorofluoromethane	50.2 ug/L	1	ug/L	50.0	ug/L	100	60-145			
Vinyl chloride	43.1 ug/L	0.5	ug/L	50.0	ug/L	86.2	50-145			
<hr style="border-top: 1px dashed black;"/>										
Surr: 1,2-Dichloroethane-d4 (Surr)	45.5		ug/L	50.0	ug/L	91.1	70-120			
Surr: 4-Bromofluorobenzene (Surr)	51.7		ug/L	50.0	ug/L	103	75-120			
Surr: Dibromofluoromethane (Surr)	45.9		ug/L	50.0	ug/L	91.9	70-130			
Surr: Toluene-d8 (Surr)	48.1		ug/L	50.0	ug/L	96.2	70-130			

##### Duplicate (BHF0649-DUP1)

Source: 24F0917-01

Prepared &amp; Analyzed: 06/18/2024

1,1,1,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40	ug/L			NA	30	
1,1,1-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1,1,2,2-Tetrachloroethane	<0.40 ug/L	0.40	ug/L	<0.40	ug/L			NA	30	
1,1,2-Trichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloroethane	1.02 ug/L	1.00	ug/L	1.02	ug/L			0.00	30	
1,1-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,1-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,3-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,3-Trichloropropane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,4-Trichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2,4-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2-Dibromo-3-chloropropane (DBCP)	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2-Dibromoethane (EDB)	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2-Dichlorobenzene	<0.50 ug/L	0.50	ug/L	<0.50	ug/L			NA	30	
1,2-Dichloroethane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,2-Dichloropropane	<0.50 ug/L	0.50	ug/L	<0.50	ug/L			NA	30	
1,3,5-Trimethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,3-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,3-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	
1,4-Dichlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00	ug/L			NA	30	



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

##### Duplicate (BHF0649-DUP1)

Source: 24F0917-01

Prepared & Analyzed: 06/18/2024

1,4-Dioxane	<80.0 ug/L	80.0	ug/L	<80.0 ug/L				NA	30	
2,2-Dichloropropane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2-Butanone (MEK)	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
2-Chloroethyl vinyl ether	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
2-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
2-Hexanone (MBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
4-Chlorotoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
4-Isopropyltoluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
4-Methyl-2-pentanone (MIBK)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Acetone	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Acetonitrile	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Acrolein	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Acrylonitrile	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Allyl chloride	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Benzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromochloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromodichloromethane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Bromoform	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Bromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Carbon disulfide	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Carbon tetrachloride	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chlorobenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroform	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	
Chloromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Chloroprene	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
cis-1,2-Dichloroethylene	3.04 ug/L	1.00	ug/L	3.12 ug/L				2.60	30	
cis-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Cyclohexane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Dibromochloromethane	<0.50 ug/L	0.50	ug/L	<0.50 ug/L				NA	30	



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

Duplicate (BHF0649-DUP1)	Source: 24F0917-01			Prepared & Analyzed: 06/18/2024						
Dibromomethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Dichlorodifluoromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Di-isopropyl ether (DIPE)	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Ethanol	<80.0 ug/L	80.0	ug/L	<80.0 ug/L				NA	30	
Ethyl methacrylate	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
Ethylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Ethyl-t-butyl ether (ETBE)	<25.0 ug/L	25.0	ug/L	<25.0 ug/L				NA	30	
Hexachlorobutadiene	<0.80 ug/L	0.80	ug/L	<0.80 ug/L				NA	30	
Iodomethane	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Isopropylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
m+p-Xylenes	<2.00 ug/L	2.00	ug/L	<2.00 ug/L				NA	30	
Methacrylonitrile	<1.50 ug/L	1.50	ug/L	<1.50 ug/L				NA	30	
Methyl acetate	<4.00 ug/L	4.00	ug/L	<4.00 ug/L				NA	30	
Methyl cyclohexane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Methyl methacrylate	<2.00 ug/L	2.00	ug/L	<2.00 ug/L				NA	30	
Methylene chloride	<4.00 ug/L	4.00	ug/L	<4.00 ug/L				NA	30	
Methyl-t-butyl ether (MTBE)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Naphthalene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
n-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
n-Propylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
o-Xylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Pentachloroethane	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Propionitrile	<40.0 ug/L	40.0	ug/L	<40.0 ug/L				NA	30	
sec-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Styrene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
TAAE	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
TAME	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
TBA	<100 ug/L	100	ug/L	<100 ug/L				NA	30	
tert-Butylbenzene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Tetrachloroethylene (PCE)	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Toluene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

##### Duplicate (BHF0649-DUP1)

Source: 24F0917-01

Prepared &amp; Analyzed: 06/18/2024

trans-1,2-Dichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
trans-1,3-Dichloropropene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
trans-1,4-Dichloro-2-butene	<4.00 ug/L	4.00	ug/L	<4.00 ug/L				NA	30	
Trichloroethylene	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Trichlorofluoromethane	<1.00 ug/L	1.00	ug/L	<1.00 ug/L				NA	30	
Vinyl acetate	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Vinyl chloride	2.89 ug/L	0.50	ug/L	2.79 ug/L				3.52	30	
Xylenes, Total	<3.00 ug/L	3.00	ug/L	<3.00 ug/L				NA	30	
Tetrahydrofuran	<10.0 ug/L	10.0	ug/L	<10.0 ug/L				NA	30	
Diethyl ether	<5.00 ug/L	5.00	ug/L	<5.00 ug/L				NA	30	
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Surr: 1,2-Dichloroethane-d4 (Surr)	46.0		ug/L	50.0 ug/L		92.0	70-120			
Surr: 4-Bromofluorobenzene (Surr)	50.5		ug/L	50.0 ug/L		101	75-120			
Surr: Dibromofluoromethane (Surr)	46.9		ug/L	50.0 ug/L		93.7	70-130			
Surr: Toluene-d8 (Surr)	48.6		ug/L	50.0 ug/L		97.2	70-130			

##### Matrix Spike (BHF0649-MS1)

Source: 24F0900-01

Prepared &amp; Analyzed: 06/18/2024

1,1,1,2-Tetrachloroethane	56.4 ug/L	0.4	ug/L	50.0	<0.4 ug/L	113	80-130			
1,1,1-Trichloroethane	49.6 ug/L	1	ug/L	50.0	<1 ug/L	99.2	65-130			
1,1,2,2-Tetrachloroethane	53.8 ug/L	0.4	ug/L	50.0	<0.4 ug/L	108	65-130			
1,1,2-Trichloroethane	46.0 ug/L	1	ug/L	50.0	<1 ug/L	90.5	75-125			
1,1-Dichloroethane	47.9 ug/L	1	ug/L	50.0	<1 ug/L	95.9	70-135			
1,1-Dichloroethylene	47.9 ug/L	1	ug/L	50.0	<1 ug/L	95.9	50-145			
1,1-Dichloropropene	52.6 ug/L	1	ug/L	50.0	<1 ug/L	105	75-135			
1,2,3-Trichlorobenzene	51.2 ug/L	1	ug/L	50.0	<1 ug/L	102	55-140			
1,2,3-Trichloropropane	50.0 ug/L	1	ug/L	50.0	<1 ug/L	100	75-125			
1,2,4-Trichlorobenzene	52.0 ug/L	1	ug/L	50.0	<1 ug/L	104	65-135			
1,2,4-Trimethylbenzene	51.8 ug/L	1	ug/L	50.0	<1 ug/L	104	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	47.9 ug/L	1	ug/L	50.0	<1 ug/L	95.8	50-130			
1,2-Dibromoethane (EDB)	54.5 ug/L	1	ug/L	50.0	<1 ug/L	109	80-120			
1,2-Dichlorobenzene	55.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	110	70-120			
1,2-Dichloroethane	43.5 ug/L	1	ug/L	50.0	<1 ug/L	86.1	70-130			
1,2-Dichloropropane	51.7 ug/L	0.5	ug/L	50.0	<0.5 ug/L	103	75-125			

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

##### Matrix Spike (BHF0649-MS1)

Source: 24F0900-01

Prepared &amp; Analyzed: 06/18/2024

1,3,5-Trimethylbenzene	52.5 ug/L	1	ug/L	50.0	<1 ug/L	105	75-124		
1,3-Dichlorobenzene	51.5 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125		
1,3-Dichloropropane	52.0 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125		
1,4-Dichlorobenzene	51.9 ug/L	1	ug/L	50.0	<1 ug/L	104	75-125		
2,2-Dichloropropane	53.8 ug/L	1	ug/L	50.0	<1 ug/L	108	70-135		
2-Butanone (MEK)	33.0 ug/L	10	ug/L	50.0	<10 ug/L	66.0	30-150		
2-Chlorotoluene	53.0 ug/L	1	ug/L	50.0	<1 ug/L	106	75-125		
2-Hexanone (MBK)	38.2 ug/L	5	ug/L	50.0	<5 ug/L	72.6	55-130		
4-Chlorotoluene	53.8 ug/L	1	ug/L	50.0	<1 ug/L	108	75-130		
4-Isopropyltoluene	58.6 ug/L	1	ug/L	50.0	<1 ug/L	117	75-130		
4-Methyl-2-pentanone (MIBK)	43.7 ug/L	5	ug/L	50.0	<5 ug/L	87.5	60-135		
Acetone	36.5 ug/L	10	ug/L	50.0	<10 ug/L	63.8	40-140		
Benzene	51.9 ug/L	1	ug/L	50.0	<1 ug/L	104	80-120		
Bromobenzene	54.2 ug/L	1	ug/L	50.0	<1 ug/L	108	75-125		
Bromochloromethane	48.3 ug/L	1	ug/L	50.0	<1 ug/L	96.5	65-130		
Bromodichloromethane	50.3 ug/L	0.5	ug/L	50.0	<0.5 ug/L	101	75-136		
Bromoform	47.1 ug/L	1	ug/L	50.0	<1 ug/L	94.2	70-130		
Bromomethane	39.7 ug/L	1	ug/L	50.0	<1 ug/L	79.4	30-145		
Carbon disulfide	44.3 ug/L	10	ug/L	50.0	<10 ug/L	88.5	35-160		
Carbon tetrachloride	55.5 ug/L	1	ug/L	50.0	<1 ug/L	111	65-140		
Chlorobenzene	54.2 ug/L	1	ug/L	50.0	<1 ug/L	108	80-120		
Chloroethane	39.8 ug/L	1	ug/L	50.0	<1 ug/L	79.6	60-135		
Chloroform	48.6 ug/L	0.5	ug/L	50.0	<0.5 ug/L	96.6	65-135		
Chloromethane	41.4 ug/L	1	ug/L	50.0	<1 ug/L	82.9	40-125		
cis-1,2-Dichloroethylene	47.5 ug/L	1	ug/L	50.0	<1 ug/L	95.0	70-125		
cis-1,3-Dichloropropene	54.6 ug/L	1	ug/L	50.0	<1 ug/L	109	47-136		
Dibromochloromethane	50.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	99.9	60-135		
Dibromomethane	53.5 ug/L	1	ug/L	50.0	<1 ug/L	107	75-125		
Dichlorodifluoromethane	38.5 ug/L	1	ug/L	50.0	<1 ug/L	76.9	30-155		
Ethylbenzene	54.2 ug/L	1	ug/L	50.0	<1 ug/L	108	75-125		
Hexachlorobutadiene	52.2 ug/L	0.8	ug/L	50.0	<0.8 ug/L	104	50-140		



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## Certificate of Analysis

### Final Report

Client Name: Total Environmental Concepts-Lorton  
 8382 Terminal Rd, Bay B  
 Lorton VA, 22079  
 Submitted To: Shanna Hryvniak  
 Client Site I.D.: Coopers Cove Rd., Hardy, VA

Date Issued: June 21, 2024 14:08  
 Project Number: 4260177  
 Purchase Order: 4260177-001

### Volatile Organic Compounds by GCMS - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0649 - SW5030B-MS

Matrix Spike (BHF0649-MS1)	Source: 24F0900-01			Prepared & Analyzed: 06/18/2024						
Isopropylbenzene	51.7 ug/L	1	ug/L	50.0	<1 ug/L	103	75-125			
m+p-Xylenes	111 ug/L	2	ug/L	100	<2 ug/L	111	75-130			
Methylene chloride	45.2 ug/L	4	ug/L	50.0	<4 ug/L	89.9	55-140			
Methyl-t-butyl ether (MTBE)	42.3 ug/L	1	ug/L	50.0	<1 ug/L	84.6	65-125			
Naphthalene	51.2 ug/L	1	ug/L	50.0	<1 ug/L	102	55-140			
n-Butylbenzene	55.5 ug/L	1	ug/L	50.0	<1 ug/L	111	70-135			
n-Propylbenzene	56.3 ug/L	1	ug/L	50.0	<1 ug/L	113	70-130			
o-Xylene	55.0 ug/L	1	ug/L	50.0	<1 ug/L	110	80-120			
sec-Butylbenzene	59.3 ug/L	1	ug/L	50.0	<1 ug/L	119	70-125			
Styrene	54.6 ug/L	1	ug/L	50.0	<1 ug/L	109	65-135			
tert-Butylbenzene	55.2 ug/L	1	ug/L	50.0	<1 ug/L	110	70-130			
Tetrachloroethylene (PCE)	57.9 ug/L	1	ug/L	50.0	<1 ug/L	116	51-231			
Toluene	50.9 ug/L	1	ug/L	50.0	<1 ug/L	102	75-120			
trans-1,2-Dichloroethylene	47.3 ug/L	1	ug/L	50.0	<1 ug/L	94.7	60-140			
trans-1,3-Dichloropropene	56.9 ug/L	1	ug/L	50.0	<1 ug/L	114	55-140			
Trichloroethylene	51.3 ug/L	1	ug/L	50.0	<1 ug/L	103	70-125			
Trichlorofluoromethane	49.1 ug/L	1	ug/L	50.0	<1 ug/L	98.2	60-145			
Vinyl chloride	44.0 ug/L	0.5	ug/L	50.0	<0.5 ug/L	87.9	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	45.8		ug/L	50.0	ug/L	91.6	70-120			
Surr: 4-Bromofluorobenzene (Surr)	51.7		ug/L	50.0	ug/L	103	75-120			
Surr: Dibromofluoromethane (Surr)	44.0		ug/L	50.0	ug/L	88.1	70-130			
Surr: Toluene-d8 (Surr)	48.0		ug/L	50.0	ug/L	95.9	70-130			



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Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Micro-extractables by GC/ECD - Quality Control

#### Enthalpy Analytical

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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#### Batch BHF0655 - SW8011

##### Blank (BHF0655-BLK1)

Prepared & Analyzed: 06/18/2024

1,2-Dibromoethane (EDB)	<0.010 ug/L	0.010	ug/L							
1,2,3-Trichloropropane	<0.010 ug/L	0.010	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	<0.010 ug/L	0.010	ug/L							

##### LCS (BHF0655-BS1)

Prepared & Analyzed: 06/18/2024

1,2-Dibromoethane (EDB)	0.179 ug/L	0.010	ug/L	0.250 ug/L	71.6	65-135				
1,2,3-Trichloropropane	0.196 ug/L	0.010	ug/L	0.250 ug/L	78.5	65-135				
1,2-Dibromo-3-chloropropane (DBCP)	0.164 ug/L	0.010	ug/L	0.250 ug/L	65.6	65-135				

##### Matrix Spike (BHF0655-MS1)

Source: 24F0880-02

Prepared & Analyzed: 06/18/2024

1,2-Dibromoethane (EDB)	0.175 ug/L	0.010	ug/L	0.253 <0.010 ug/L	69.1	65-135				
1,2,3-Trichloropropane	0.173 ug/L	0.010	ug/L	0.253 <0.010 ug/L	68.5	65-135				
1,2-Dibromo-3-chloropropane (DBCP)	0.141 ug/L	0.010	ug/L	0.253 <0.010 ug/L	55.5	65-135				M

##### Matrix Spike Dup (BHF0655-MSD1)

Source: 24F0880-02

Prepared & Analyzed: 06/18/2024

1,2-Dibromoethane (EDB)	0.172 ug/L	0.010	ug/L	0.253 <0.010 ug/L	67.9	65-135	1.95	20		
1,2,3-Trichloropropane	0.168 ug/L	0.010	ug/L	0.253 <0.010 ug/L	66.4	65-135	3.28	20		
1,2-Dibromo-3-chloropropane (DBCP)	0.148 ug/L	0.010	ug/L	0.253 <0.010 ug/L	58.7	65-135	5.28	20		M

## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Certified Analyses included in this Report

Analyte	Certifications
<b>SW8011 in Non-Potable Water</b>	
1,2-Dibromoethane (EDB)	VELAP,NCDEQ
1,2,3-Trichloropropane	VELAP,NCDEQ
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ
<b>SW8260D in Non-Potable Water</b>	
1,1,1,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,1-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2,2-Tetrachloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1,2-Trichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
1,1-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,3-Trichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2,4-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromo-3-chloropropane (DBCP)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dibromoethane (EDB)	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloroethane	VELAP,NCDEQ,PADEP,WVDEP
1,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,3,5-Trimethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
1,3-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
1,4-Dichlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
2,2-Dichloropropane	VELAP,NCDEQ,PADEP,WVDEP
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
2-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
2-Hexanone (MBK)	VELAP,NCDEQ,PADEP,WVDEP
4-Chlorotoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Isopropyltoluene	VELAP,NCDEQ,PADEP,WVDEP
4-Methyl-2-pentanone (MIBK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Bromobenzene	VELAP,NCDEQ,PADEP,WVDEP
Bromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromodichloromethane	VELAP,NCDEQ,PADEP,WVDEP
Bromoform	VELAP,NCDEQ,PADEP,WVDEP

## Certificate of Analysis

### Final Report

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### Certified Analyses included in this Report

Analyte	Certifications
Bromomethane	VELAP,NCDEQ,PADEP,WVDEP
Carbon disulfide	VELAP,NCDEQ,PADEP,WVDEP
Carbon tetrachloride	VELAP,NCDEQ,PADEP,WVDEP
Chlorobenzene	VELAP,NCDEQ,PADEP,WVDEP
Chloroethane	VELAP,NCDEQ,PADEP,WVDEP
Chloroform	VELAP,NCDEQ,PADEP,WVDEP
Chloromethane	VELAP,NCDEQ,PADEP,WVDEP
cis-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
cis-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Dibromochloromethane	VELAP,NCDEQ,PADEP,WVDEP
Dibromomethane	VELAP,NCDEQ,PADEP,WVDEP
Dichlorodifluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Di-isopropyl ether (DIPE)	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Hexachlorobutadiene	VELAP,NCDEQ,PADEP,WVDEP
Iodomethane	VELAP,NCDEQ,PADEP,WVDEP
Isopropylbenzene	VELAP,NCDEQ,PADEP,WVDEP
m+p-Xylenes	VELAP,NCDEQ,PADEP,WVDEP
Methylene chloride	VELAP,NCDEQ,PADEP,WVDEP
Methyl-t-butyl ether (MTBE)	VELAP,NCDEQ,PADEP,WVDEP
Naphthalene	VELAP,NCDEQ,PADEP,WVDEP
n-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
n-Propylbenzene	VELAP,NCDEQ,PADEP,WVDEP
o-Xylene	VELAP,NCDEQ,PADEP,WVDEP
sec-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Styrene	VELAP,NCDEQ,PADEP,WVDEP
tert-Butylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Tetrachloroethylene (PCE)	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,2-Dichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
trans-1,3-Dichloropropene	VELAP,NCDEQ,PADEP,WVDEP
Trichloroethylene	VELAP,NCDEQ,PADEP,WVDEP
Trichlorofluoromethane	VELAP,NCDEQ,PADEP,WVDEP
Vinyl acetate	VELAP,NCDEQ,PADEP,WVDEP
Vinyl chloride	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP



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## Certificate of Analysis

### Final Report

Client Name:	Total Environmental Concepts-Lorton 8382 Terminal Rd, Bay B  Lorton VA, 22079	Date Issued:	June 21, 2024 14:08
Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2024
NYDOH	New York DOH Drinking Water	12069	04/01/2025
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
TXCEQ	Texas Comm on Environmental Quality #T104704	T104704576	05/31/2025
VELAP	NELAP-Virginia Certificate #12969	460021	06/14/2025
WVDEP	West Virginia DEP	350	11/30/2024



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## Certificate of Analysis

### *Final Report*

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### Summary of Data Qualifiers

M Matrix spike recovery is outside established acceptance limits

RPD Relative Percent Difference

Qual Qualifiers

-RE Denotes sample was re-analyzed

D.F. Dilution Factor. Please also see the Preparation Factor in the Analysis Summary section.

TIC Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.

PCBs, Total Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.



**CHAIN OF CUSTODY**

PAGE    OF   

COMPANY NAME: <i>Total Env. Concepts</i>	INVOICE TO: <i>APA@teci.pro</i>	PROJECT NAME/Quote #: <i>Coopers Cove Rd</i>
CONTACT: <i>Shanna Hryvniak</i>	INVOICE CONTACT: <i>Tyane Best</i>	SITE NAME: <i>Coopers Cove Rd, Hardy, VA</i>
ADDRESS: <i>8382 Terminal Rd, Lorton, VA</i>	INVOICE ADDRESS: <i>same</i>	PROJECT NUMBER: <i>4260177</i>
PHONE #: <i>804-389-7983</i>	INVOICE PHONE #: <i>703-567-4346</i>	P.O. #: <i>4260177-001</i>
FAX #: <i>N/A</i>	EMAIL: <i>shryvniak@teci.pro</i>	Pretreatment Program: <i>None</i>
Is sample for compliance reporting? YES <input type="radio"/> NO <input checked="" type="radio"/>	Regulatory State: <i>VA</i>	Is sample from a chlorinated supply? YES <input type="radio"/> NO <input checked="" type="radio"/>
PWS I.D. #:		

SAMPLER NAME (PRINT): *David C. Dudley*      SAMPLER SIGNATURE: *[Signature]*      Turn Around Time: Circle 10  5 Days or    Day(s)

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other

LAB USE ONLY	ANALYSIS										COMMENTS							
	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Stop Date	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers								
<b>Cooler Temp</b> Therm ID: <u>393</u> Observed Temp °C: <u>5.6</u> Correction Factor °C: <u>0.0</u> Corrected Temp °C: <u>5.6</u>																		
CLIENT SAMPLE I.D.																		
1) <i>5909 Windermere Way</i>	<input checked="" type="checkbox"/>					<i>6-13-24</i>	<i>2:30</i>	<i>3:15</i>	<i>GW</i>	<i>5</i>	<input checked="" type="checkbox"/>	<i>8260 UUGs</i>	<i>8011 EDB</i>					
2)																		
3) <i>Trip Blank</i>										<i>2</i>								
4)																		
5)																		
6)																		
7)																		
8)																		
9)																		
10)																		

Preservative Codes: N=Nitric Acid  
C=Hydrochloric Acid S=Sulfuric Acid  
H=Sodium Hydroxide A=Ascorbic Acid  
Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol

*DEQ State Lead Rates*

PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)

RELINQUISHED: <i>[Signature]</i> DATE / TIME: <i>6-14-24 / 7:10</i>	RECEIVED: <i>[Signature]</i> DATE / TIME: <i>06/14/24 13:10</i>	QC Data Package Level III <input type="checkbox"/> Level IV <input type="checkbox"/>	LAB USE ONLY
RELINQUISHED: <i>[Signature]</i> DATE / TIME: <i>  </i>	RECEIVED: <i>[Signature]</i> DATE / TIME: <i>  </i>	Custody Seals used and intact? (Y/N) <i>Y</i>	<b>TEC-Springfield      24F0919</b> <b>Coopers Cove - State Lead</b> <b>Recd: 06/14/2024    Due: 06/21/2024</b> <small>v130325002</small>
RELINQUISHED: <i>[Signature]</i> DATE / TIME: <i>  </i>	RECEIVED: <i>[Signature]</i> DATE / TIME: <i>  </i>	Received on ice? (Y/N) <i>Y</i>	



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### Certificate of Analysis

#### Final Report

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Submitted To:	Shanna Hryvniak	Project Number:	4260177
Client Site I.D.:	Coopers Cove Rd., Hardy, VA	Purchase Order:	4260177-001

### Sample Conditions Checklist

Samples Received at:	5.60°C
How were samples received?	Walk In
Were Custody Seals used? If so, were they received intact?	Yes
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	Yes
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	No
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	Yes

Trip Blanks were not received  
Shanna Hryvniak notified via email  
JNH 6/18/24 1430