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# REMEDIAL ACTION WORK PLAN

FORMER TROLLEY BARN

777 CRANSTON STREET  
CRANSTON, RHODE ISLAND

MARCH 4, 2022

PREPARED FOR:

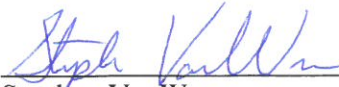
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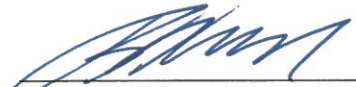
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## 1.0 INTRODUCTION

CMG Environmental, Inc. (CMG) has prepared this Remedial Action Work Plan (RAWP) for the former “Trolley Barn” property located at 777 Cranston Street in Cranston, Rhode Island (the Site). Figure 1 (Site Location Map) depicts the Site in relation to streets and other topographic features.

This RAWP documents assessment work performed to date (by CMG and others) and describes future management of soils impacted by polynuclear aromatic hydrocarbons (PAHs) and (to a lesser extent) lead and arsenic during proposed future Site redevelopment activities.

### 1.1 PURPOSE

CMG prepared this RAWP at the request of Mr. Shamus Finney of First Hartford Realty Corporation (First Hartford) to meet the applicable performance standards set forth by the Rhode Island Department of Environmental Management (DEM) “Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases” dated March 31, 1993, as amended through April 2020 (the Remediation Regulations; 250-RICR-140-30-1).

### 1.2 PROPERTY LOCATION & IDENTIFICATION

The City of Cranston Assessor’s Map 7 identifies the Site as Lot 2, Unit 1. Records obtained online using the City of Cranston’s online GIS system (<https://cranston.maps.arcgis.com/home/index.html>) identify the Site as Map 7, Lot 1, Unit 0. The Site consists of 300,999 square feet (approximately 6.91 acres) of land.

UTM (Universal Transverse Mercator) coordinates in the approximate middle of the Site are 4,630,900 meters north and 297,150 meters east in Zone 19. This point is at 41°48'14.5" north latitude (41.80403 °N), 71°26'30.5" west longitude (-71.44180 °E). Figure 2 (Site Plan) depicts the pertinent Site information in relation to Site boundaries and other features.

### 1.3 CURRENT SITE OCCUPANT & USE

The Site is currently a vacant parcel of land.

## 2.0 RELEVANT SITE & VICINITY HISTORY

### 2.1 SITE LOCATION & HISTORY

The Site is bounded by a former railroad bed for the New York, New Haven, & Hartford Railroad (now owned by the State of Rhode Island) to the west, the rail lines of the National Railroad Passenger Corporation (Amtrak) to the north and east, and Cranston Street to the south.

Between 1900 and 1921, Rhode Island Suburban Railway Company owned the Site until United Electric Railway Company purchased it. Liberty Real Estate & Investment Corporation purchased the Site in 1936, and leased portions of it to a gas station (reportedly from 1934 to 1939), two sign companies, a bus company, and a trucking company.

Narragansett Brewery began to lease the Site in 1950 and Falstaff Brewing Corporation purchased the Site in 1965. Brewery operations shut down in July 1981. Trolley Barn Associates, LLC acquired the Site on October 30, 2000. On May 6, 2005 a fire occurred at the Site that resulted in the demolition of the Trolley Barn building. The Site has remained vacant since 2005.

## 2.2 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

CMG reviewed a December 2000 “Limited Subsurface Investigation” report prepared on the Site by Paragon Environmental Services, Inc. (Paragon) of Norwood, Massachusetts; an October 31, 2005 “Remedial Action Work Plan” prepared on the Site by CMG; and an August 11, 2021 “Phase I Environmental Site Assessment Report” prepared on the Site by Earth Science, LLC (Earth Science) of Irvine, California. The following Sections summarize our review of these reports.

### 2.2.1 DECEMBER 2000 LIMITED SUBSURFACE INVESTIGATION BY PARAGON

- Paragon supervised a geophysical survey (GPS) of the Site in September 2000. They identified three anomalies consistent with the size and amplitude expected for an underground storage tank (UST).
- Paragon supervised the advancement of 10 soil borings (designated PSB-1 through PSB-4 and PES-1 through PES-6). They collected soil samples every two feet and screened them for total organic vapors (TOV) using a freshly calibrated photoionization detector on parts per million by volume basis (ppmv<sup>1</sup>).
- Paragon observed a maximum TOV reading of 0.1 ppmv at PES-6 (20-22'). Given the low TOV readings, Paragon did not submit soil samples for laboratory analysis.
- Immediately following the advancement of soil borings PES-1 through PES-6, Paragon supervised the installation of groundwater monitoring wells. They subsequently collected groundwater samples from PES-1 through PES-6 in October 2000. Paragon submitted groundwater samples for laboratory analysis of volatile organic compounds (VOCs) by EPA Method 8260, total petroleum hydrocarbons (TPH) by EPA Method 8015, PAHs by EPA Method 8270 and dissolved eight Resource Conservation and Recovery Act toxic metals (RCRA8) by various EPA 200-series methodologies.
- Laboratory analysis of groundwater showed trace concentrations of benzene, toluene, ethylbenzene, xylenes and methyl tertiary butyl ether (MTBE) in PES-1. Paragon opined that the VOC detections were the result of an upgradient source. None of the analytes exceeded the applicable Method 1 GB Groundwater Objectives.
- Paragon did not identify any Site conditions requiring notification to DEM)

### 2.2.2 OCTOBER 2005 REMEDIAL ACTION WORK PLAN

- CMG prepared a RAWP for the relocation of soils impacted by PAHs and metals from the former Narragansett facility (the “Brewery”) located immediately south of the Site (across Cranston Street).

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<sup>1</sup> ppmv = parts-per-million by volume, calibrated “as benzene” in accordance with standard DEP and EPA protocols.

- CMG proposed relocating approximately 9,400 cubic yards of soil from the Brewery parcel to the Site for use as grading material across the rear two-thirds and covering it with clean fill. We also proposed isolating any potentially impacted Site soils underneath pavement and or clean fill (with no less than 2 foot of clean fill, or a layer of high visibility geotextile fabric overlain by at least one foot of clean fill in landscaped areas).
- During demolition of the Trolley Barn building following the May 2005 fire, construction personnel discovered two approximately 1,000-gallon steel USTs located near the western wall of the former building. Clean Environmental, Inc. (CEI) of Providence, Rhode Island supervised the removal of the USTs and assessed for environmental impacts.
- CEI documented the removal of the USTs in their October 2005 “UST Closure Assessment Report, The Trolley Barn, 891 Cranston Street, Cranston, RI.” CEI indicated that both USTs were of single-wall steel construction with heavy corrosion and numerous holes. CEI reported that the USTs were for gasoline. They reported that both tanks were empty and in such poor condition that they were removed in pieces. CEI did not report observing any evidence of impact to soils surrounding the USTs and indicated that TOV readings from soils around and underneath the USTs did not exceed 1 ppmv.
- Results of post-excavation soil samples from the UST excavation indicated the presence of toluene at 0.039 mg/Kg, well below the applicable Method 1 Standards. CEI concluded that “no further investigation of the Site was warranted at that time.”

### 2.2.3 AUGUST 2021 PHASE I ESA BY EARTH SCIENCE

- Earth Science indicated that two USTs containing fuel oil were formerly located north of the Trolley Barn building and supplied fuel to the building’s heating system. The USTs were reportedly removed in 1992 or 1993. Two 1,000-gallon USTs containing gasoline were reportedly installed on October 9, 1984 and removed on October 6, 2005.
- They reviewed CMG’s 2005 RAWP; according to the RAWP, CMG proposed relocating soils impacted by PAHs and heavy metals from the main Narragansett Brewery plant (located south of the Site, across Cranston Street) to the northern and central portions of the Site. Approximately 9,400 cubic yards of soil were relocated as part of construction activities for the Cranston Police Headquarters building. Personnel reportedly placed the relocated soils impacted by PAHs and metals at the Site beneath approximately 2' of clean soil.
- Earth Science identified an open Leaking Underground Storage Tank (LUST) case associated with the west/southwest-adjacent gas station and the known groundwater contamination from the west/southwest-adjacent gas station possibly impacting the subject property as a Recognized Environmental Condition (REC).
- They identified the soil impacted by PAHs and metals from the neighboring property which currently remain in-place at the Site beneath 2' of clean soil as a Controlled REC.

- Earth Science identified the closed UST case status associated with the former USTs at the Site as a Historical REC.

### 3.0 PHYSICAL SETTING

#### 3.1 TOPOGRAPHY

The Site is at an elevation of 17-23 meters (55-75'); above the National Geodetic Vertical Datum of 1988 with a slope down to the north according to the USGS Providence, RI topographic quadrangle (see Figure 1).

#### 3.2 GEOLOGY

##### 3.2.1 BEDROCK

CMG did not observe any bedrock outcrops at or in the immediate vicinity of the Site. According to the Bedrock Geological Map of Rhode Island, the Avalon Belt formation underlies the Site. This Proterozoic-aged bedrock consists of granite, pelitic and mafic rock.

CMG advanced borings to a maximum depth of 40' below grade without encountering bedrock or other refusal.

##### 3.2.2 SOILS

According to the Soil Conservation Service "Web Soil Survey," the Udorthents-Urban land complex, with 0-15% slopes, underlies the Site. This mapping unit consists of areas of moderately well drained to excessively drained soils that have been disturbed by cutting or filling, and areas that are covered by buildings and pavement.

CMG observed Site soils to consist of well-graded to poorly-graded sand and gravel to a depth of 40' below grade. We observed evidence of urban fill material to a depth of approximately 10' below grade. Appendix A (Boring Logs) includes detailed subsurface soil descriptions.

##### 3.2.3 REGULATORY REQUIREMENTS

###### General Requirements for Direct Exposure Criteria in Soil

DEM provides several criteria for soil contamination comparison. One must compare all soil to the Method 1 Direct Exposure Criteria, which include separate criteria for Residential Direct Exposure and Industrial/Commercial Direct Exposure, and also require implementation of an Environmental Land Use Restriction (ELUR) at non-residential properties to permit comparison to Industrial/Commercial Direct Exposure criteria.

The Method 1 Direct Exposure Criteria provides Leachability criteria; they include separate criteria for areas where DEP classifies groundwater "GA" (existing or potential drinking water supply, presumed suitable for direct human consumption without treatment), versus areas where DEEP classifies groundwater "GB" (presumed not suitable for direct human consumption).

###### General Requirements for Exposure Criteria in Groundwater

DEM classifies groundwater at the Site and vicinity as category GB. DEM designates category GA groundwater for existing private and potential public drinking water supply and designates groundwater that may not be unsuitable for direct human consumption as GB.



### 3.3 HYDROLOGY

#### 3.3.1 SURFACE WATER

There is no surface water body located at the Site. The Site is located within the Pawcatuck River Basin.

Surface runoff would be to the north if unimpeded by systems such as stormwater catchbasins.

#### 3.3.2 GROUNDWATER

CMG measured the depth to groundwater and performed a survey of monitoring well elevations on November 19, 2021. The following table summarizes these data; Figure 2 illustrates groundwater elevations and 0.1' contours.

GROUNDWATER ELEVATIONS (FEET)

WELL ID#	WELLHEAD ELEVATION	DEPTH TO GROUNDWATER	GROUNDWATER ELEVATION
CMG-1	100.00	31.31	68.69
CMG-2	99.96	31.31	68.65
CMG-3	98.95	30.34	68.61
CMG-4	97.42	28.75	68.67
CMG-5	93.74	25.10	68.64
CMG-6	95.04	26.43	68.61
CMG-7	91.44	23.29	68.15
CMG-8	85.16	17.10	68.06

MEASUREMENTS RELATIVE TO AN ARBITRARY DATUM OF 100.00 AT CMG-1.

The groundwater elevation data indicate that Site groundwater flows generally north with a hydraulic gradient of 0.02 feet/foot (approximately 105 feet/mile).

#### 3.3.3 REPORTING CATEGORY

DEM classifies Site groundwater as GB in accordance with Part 150-05-3 of DEM's "Groundwater Quality Rules." Groundwater classified GB is groundwater which may not be suitable for drinking water use without treatment due to known or presumed degradation.

## 4.0 NOVEMBER 2021 SITE INVESTIGATION REPORT (SIR)

### 4.1 SOIL BORINGS

CMG supervised the advancement of 8 soil borings (designated CMG-1 through CMG-8) at the Site between November 15 and November 17, 2021 using hollow-stem augers advanced by a truck-mounted drilling rig. Mr. Stephen VanWormer and Mr. Michael Cotè of CMG supervised the drilling, conducted by Technical Drilling Services, Inc. (TDS) of Sterling, Massachusetts.

CMG directed TDS to place boring CMG-1 on the southwest portion of the Site to assess for groundwater impacts previously identified by Paragon in PES-1. We placed boring CMG-5 on the eastern portion of the Site, in the general area of the former USTs. We placed the remaining borings to assess soil and groundwater throughout the Site. Figure 2 illustrates these locations.

TDS collected 2' soil samples approximately every 5' in a split-spoon driven by a standard 140-pound drop hammer. CMG field-screened the soil samples for TOV using a freshly calibrated photoionization detector. TOV readings did not exceed 3.6 ppmv (CMG-7 [10-12']).

CMG submitted a total of 19 samples to Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, Connecticut for laboratory analysis of VOCs, PAHs, RCRA8, Synthetic Precipitation Leaching Procedure (SPLP) analysis and TPH. Table 1 (following the Figures) summarizes laboratory analyses. Appendix B presents Phoenix lab certificates of analysis and chain of custody documentation. Of the 19 samples collected, 9 contained PAH concentrations in excess of the Residential Direct Exposure Criteria (RDEC). Furthermore, 3 of those 9 samples contained PAHs and/or metals (specifically arsenic) in excess of the Industrial/Commercial Direct Exposure Criteria (I/C-DEC). CMG notes that soil data collected in November 2021 is consistent with historical soil data collected in 2005/2006. Table 3 (following the Figures) summarizes historic soil data.

#### 4.2 GROUNDWATER MONITORING WELLS

Immediately following advancement of each soil boring, CMG supervised installation of a groundwater monitoring well in each (designated CMG-1 through CMG-8). TDS constructed these wells of Schedule 40, 2" diameter polyvinyl chloride casing with 10' 0.01" slotted screen set across the water table. Boring logs (Appendix A) include monitoring well construction diagrams.

CMG developed and samples the wells on November 19, 2021 by purging three well volumes from each of them. We subsequently disposed of purge water from each well (after sampling) to the nearby ground surface. CMG collected groundwater samples from all 8 monitoring wells. We did not observe any odors or oily sheen associated with these samples.

CMG submitted groundwater samples to Phoenix for laboratory analysis of VOCs by EPA Method 8260, semi-volatile organic compounds (SVOCs) with PAH identifications by EPA Method 8270, dissolved RCRA8 metals, and TPH by Method EPA 8015. Table 2 (following the Figures) summarizes laboratory analyses. Appendix B presents Phoenix lab certificates of analysis and chain of custody documentation. None of the groundwater samples collected from on-site monitoring wells exceeded the applicable Method 1 GB Groundwater Objectives.

### 5.0 REMEDIAL ACTION WORK PLAN [1.10.1]

CMG presents the required elements of this RAWP in detail in the following subsections, as outlined in Section 1.10 of the Remediation Regulations. Each of the following sections addresses a specific section of the Remediation Regulations, noting the relevant section in parentheses.

#### 5.1 REMEDIAL OBJECTIVES [1.10.2]

The contaminants of concern identified at the Site include certain PAHs and metals in soil. We have established the following remedial objectives based on the applicable regulatory criteria and exceedances observed at the Site;

- Reduce the potential exposure for future Site occupants and visitors who may contact Site soils contaminants at concentrations above the Residential Direct Exposure Criteria (RDEC) and Industrial/Commercial Direct Exposure Criteria (I/C-DEC) through the use of engineering controls;
- Establish procedures/protocols for soil management during the planned development activities and future Site use activities that involve disturbances of Site surfaces; and
- Protect the long-term effectiveness of the remedial measures through implementation of an Environmental Land Use Restriction (ELUR).

#### 5.1.1 GROUNDWATER [1.10.2(A.1)]

Laboratory testing did not identify groundwater contamination in excess of the applicable groundwater quality standards (e.g., all tested parameters were below GB Groundwater Objectives).

#### 5.1.2 SEDIMENT AND SURFACE WATER [1.10.2(A.2)]

No impacts to surface water or sediment exist at the Site. Therefore, remediation of surface water or sediment is not required. The Site contractor will establish erosion controls, as necessary, during any future Site redevelopment activities.

#### 5.1.3 SOIL [1.10.2(A.3)]

RDEC and I/C-DEC exceedances are limited to certain PAHs and metals. As the proposed future use of the Site is considered a commercial exposure scenario under DEM regulations, remedial objectives for any future soil removal and/or on-Site management are included in the Soil Management Plan ([SMP]; see Appendix C).

The objectives of the SMP are to;

- Manage PAH and metals impacted soil in accordance with all applicable regulatory requirements; and
- Prevent direct human exposure with contaminated soil through dust control during Site redevelopment activities, soil encapsulation and ELUR once construction activities are complete.

#### 5.1.4 AIR [1.10.2(A.4)]

The contaminants present in Site soils are limited to PAHs and metals. The Site contractor will implement dust control measures during any future Site redevelopment activities to mitigate the generation of fugitive dust. Laboratory analysis identified the VOC 1,1,1-trichloroethane in groundwater at CMG-4 at a concentration of 1.6 µg/L, substantially below the GB Groundwater objective of 3,100 µg/L. Given the depth to water in CMG-4 (28.75' in November 2021) and the low-level VOC concentration, potential vapor intrusion into future Site buildings is unlikely.

#### 5.2 PROPOSED REMEDY [1.10.3]

CMG proposes a remedial remedy that includes encapsulating contaminated soils, use of engineering controls, and implementation of an institutional control in the form of an ELUR.

Site personnel will excavate PAH-and metal-impacted soil to facilitate the installation of building foundations and utilities. Excess soil may be used for backfill around foundations and utilities, or reused on-Site for grading purposes.

#### 5.2.1 ENGINEERING CONTROLS

Site personnel will restrict access to the Site prior to redevelopment activities. Fencing currently restricts access to the Site along the majority of the Site boundary. However, Site personnel will install additional fencing to encompass the entire Site perimeter.

Encapsulation of contaminated soils will include placement of geotextile fabric overlain with 1' of demonstrated clean soil/crushed stone (at minimum).

CMG and/or other qualified Site personnel are to compare the quality of soil brought to the Site to serve as backfill or as part of soil encapsulation to DEM's RDEC. Samples representative of the off-Site soil supply (collected as discrete grab samples and/or multi-aliquot composites from the source) are to be tested for the following;

- TPH by Method 8100;
- VOCs by Method 8260;
- SVOCs by Method 8270;
- Polychlorinated biphenyls (PCBs) by Method 8082; and
- Priority Pollutant 13 Metals (PP13) by Method 6010/7471.

The frequency of sampling and testing will be a full suite of analysis for every 2,000 cubic yards of soil and metals for every 500 cubic yards of soil. CMG (or others) will collect soil samples at the proposed source. Soils not meeting these criteria will be rejected for use at the Site. The laboratory testing results of the approved soil source(s) will be provided to DEM as part of the Remedial Action Closure Report.

Site building footprints, asphalt pavement, and concrete walkways will prevent access to impacted soils. The ELUR will restrict certain activities at the Site and will also ensure that the engineered cap is maintained. The ELUR will include a post-construction SMP, outlining the procedures for managing regulated soils should disturbances below the cap be required.

#### 5.2.2 SOIL DISPOSAL

Excess impacted soil will be disposed of off-Site at a licensed facility, such as the Rhode Island Resource Recovery Corporation (RIRRC) landfill in Johnston Rhode Island in accordance with applicable regulatory requirements.

#### 5.3 REMEDIATION OF IMPACTED GROUNDWATER [1.10.4]

Laboratory testing did not identify groundwater contamination in excess of the applicable groundwater quality standards (e.g., all tested parameters were below GB Groundwater Objectives).

#### 5.4 LIMITED DESIGN INVESTIGATION [1.10.5]

See Section 4.0.

## 5.5 POINTS OF COMPLIANCE [1.10.6]

### 5.5.1 CLEAN FILL

See Section 5.2.1 above.

### 5.5.1 ELUR COMPLIANCE

A qualified environmental professional or person(s) with direct knowledge of past and present conditions at the Site is to perform annual evaluations. The evaluation will include a visual Site reconnaissance at which time Site conditions will be documented regarding physical changes that may affect the integrity of engineered controls described in the ELUR. The results of the evaluation will be presented to DEM as annual reports. Inspections will commence approximately one year following the submittal of the Remedial Action Closure Report and recording the ELUR.

### 5.5.2 LEACHABILITY OF SITE CONTAMINANTS

CMG submitted three soil samples [CMG-5 (5-7'), CMG-7 (5-7') & CMG-7 (10-12')] for SPLP analysis of PAHs and metals (see Table 1) Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, Connecticut. Phoenix did not identify PAH leachate above laboratory method detection limits. Soil sample CMG-5 (5-7') contained arsenic leachate at 0.004 µg/L. Phoenix did not identify any remaining metals above laboratory method detection limits.

DEM Method 1 Groundwater Objectives do not currently provide GB leachability standards for PAH and metal contaminants. CMG conducted SPLP analysis to support engineering calculations (performed by others) for evaluation of future on-Site stormwater discharge.

When development of the Site is complete, impacted soils at the Site will be overlain by buildings or impervious asphalt and concrete surfaces, with the remainder overlain by up to 1' of clean fill. Thus, the majority of impacted soils will not experience any significant water infiltration from precipitation and surface runoff, resulting in very low potential for contaminant leaching once development is complete.

CMG notes that the depth to groundwater at the Site ranges from approximately 17-31' below grade, with no potential direct contact between COC-impacted soils and groundwater. An area of proposed stormwater infiltration is located on the northern portion of the Site (see Figure 3). CMG measured the depth to groundwater in this area at 17.10' on November 19, 2021.

### 5.5.3 DUST MONITORING

CMG intends to implement a dust monitoring program during soil excavation and construction related activities to identify and quantify airborne levels of particulates (see SMP, Appendix C). We will perform real time particulate monitoring upwind and downwind of Site activities at the fence line on an as-needed basis.

CMG will monitor background air quality readings prior to the start of soil excavation and construction related activities using a portable dust meter that measures respirable particulates (PM10). This pre-construction monitoring will serve as a baseline of existing background air quality conditions for subsequent monitoring of airborne particulates.

The current National Ambient Air Quality Standards for particulate air pollution is 150  $\mu\text{g}/\text{m}^3$  as PM10 dust. Therefore, the action level during dust monitoring activities is 150  $\text{ug}/\text{m}^3$  for a continuous 5-minute period, above which construction activities will be suspended and dust control measures implemented until particulate levels recede below this limit.

It is assumed that the particulates exceed the action level and corrective actions will be taken as soon as possible if visible dust levels occur as a result of Site activities.

#### 5.6 PROPOSED SCHEDULE FOR REMEDIATION [1.10.7]

Site personnel are to implement this RAWP and associated SMP at the start of proposed construction activities. CMG will prepare a draft ELUR upon receipt of the Remedial Approval Letter by First Hartford. The ELUR will be recorded at the City of Cranston Recorder of Deeds upon completion of construction activities. CMG will prepare a Remedial Action Closure Report following the recording of an ELUR at the City of Cranston.

#### 5.7 CONTRACTORS AND CONSULTANTS [1.10.8]

The contractors, consultants and contacts responsible for the implementation of the RAWP and associated SMP are listed below:

##### SITE CONTRACTORS & CONSULTANTS

COMPANY	RESPONSIBILITY	CONTACT	PHONE
First Hartford Realty Corporation	Site Owner	Shamus Finney	646-684-6555
CMG Environmental, Inc.	Environmental Field Oversight, Monitoring and Reporting	Stephen VanWormer	978-732-4478
		Gary Magnuson	508-320-0312
DiPrete Engineering	Civil Engineering, Site Design, Permitting	Dana Nisbet	917-807-5392
To Be Determined	Site Contractor	To Be Determined	To Be Determined
NOTE: SITE CONTACTS ARE SUBJECT TO CHANGE.			

#### 5.8 SITE PLAN [1.10.9]

The following Figures are included as part of this RAWP:

- Figure 1 – Site Location
- Figure 2 – Site Plan
- Figure 3 – Area of Proposed Hydraulic Loading
- Figure 4 – Proposed Site Design

#### 5.9 DESIGN STANDARD AND TECHNICAL SPECIFICATION [1.10.10]

The encapsulation of contaminated soils at the Site will be done so in accordance with federal, state, and local regulations. CMG will document RAWP compliance and final construction details in the Remedial Action Closure Report.

Implementation of this RAWP does not require the construction/installation or operation of any remedial systems.

### 5.9.1 TYPES OF SOIL ENCAPSULATION

The Site contractor shall re-grade and/or re-locate impacted soil at the Site via a combination of the cap types described below to mitigate the potential for direct exposure to the soil;

- Landscaped Areas: Will consist of a minimum of 1' of imported clean fill, overlying geotextile fabric;
- Concrete Walkways: Will consist of 4" of concrete, overlying a minimum of 6" of imported clean fill (may be structural in nature), covering existing soil;
- Asphalt: Parking lots and access drives at the Site will consist of 4" of bituminous asphalt, overlying a minimum of 6" of imported clean fill (may be structural in nature), covering existing soil; and
- Permanent Structures: Proposed Site buildings will consist of slab on grade construction, overlying approximately 4-6" of imported clean fill (may be structural in nature), covering existing soil.

### 5.9.1 SOIL ENCAPSULATION

The Site contractor is to demarcate with flagging, signage, etc., the locations of different soil encapsulation methods described above (Section 5.9.1). CMG will likely decommission existing monitoring wells during soil encapsulation efforts in accordance with Appendix 1 of the DEM Rules and Regulations for Groundwater Quality.

The Site contractor will apply a geotextile fabric barrier in the areas of proposed landscaping. They will then apply a layer of imported clean fill until the appropriate thickness described in Section 5.9.1 is achieved. The Site contractor is to plant grass, trees, and other plantings concurrent with or just after completion of soil encapsulation. Personnel will facilitate plantings in a manner which minimizes disturbance of existing soil beneath clean fill. Plantings may warrant the removal of portions of the underlying geotextile fabric to accommodate root balls and future root growth.

### 5.10 SET UP PLANS [1.10.11]

The Site contractor will deliver equipment to the Site prior to work commencing. They will place chain-link construction fencing around the perimeter of the Site (see Section 5.2.1). The Site contractor will use hay bales and straw wattles (or equivalent) to provide erosion control along the base of the construction fencing and at other areas around the Site, as needed. Water may be used as a Best Management Practice (BMP) to control fugitive dust migration. Site personnel are to stockpile and cover any excess PAH or metals impacted soil generated during Site construction activities with 6-millimeter polyethylene sheeting.

### 5.11 EFFLUENT DISPOSAL [1.10.12]

A licensed waste hauler will dispose of excess PAH and metals impacted soil off-Site at an appropriately licensed receiving facility under Uniform Hazardous Waste Manifest procedures.

The Site contractor is to designate an area to stage impacted soils pending off-Site disposal. The area must be secure to limit unauthorized access. Site personnel are to place soil on and cover it with 6-millimeter polyethylene sheeting (at minimum) during the entire duration of its staging and secure it with appropriate controls to limit the loss of the cover and protect against the elements.

## 5.12 CONTINGENCY PLAN [1.10.13]

CMG has prepared this “Contingency Plan” to establish procedures that will be followed during Site re-development activities. Given the types of contaminants (i.e., PAHs & metals), the historic nature of the Site and the activities proposed, the risk of a new release that poses an immediate threat to human health or the environment is very low. Site personnel will follow all BMPs and appropriate health and safety procedures during implementation of all construction related activities.

### 5.12.1 BASIC HEALTH AND SAFETY

Site personnel are to implement the basic health and safety procedures outlined below while performing excavation work at the Site. The procedures are intended as a general guideline for basic excavation and maintenance activities. The contractor conducting Site work is required to follow a health and safety plan developed for their specific activities in accordance with the Occupational Safety and Health Administration requirements contained in 29 CFR Part 1910.120.

Based on documented Site conditions, the potential routes of exposure to on-Site excavation or utility repair workers include dermal contact (absorption), accidental ingestion of impacted soil, or dust inhalation. Utilization of the appropriate personal protective equipment (PPE) and the general safety guidelines provided below will minimize the potential for worker exposure while working at the Site.

### 5.12.2 PPE

In general, the level of protection used by workers is determined by the task that the person is performing; however, at a minimum Site personnel will wear Level D PPE at all times while performing excavation activities (at minimum). Level D PPE will consist of the following PPE:

- Steel-toe work boots (or equivalent);
- Reflective vest;
- Eye protection;
- Work gloves;
- Hard hat; and
- Appropriate clothing.

### 5.12.3 SITE OPERATING PROCEDURES

Regardless of the level of PPE necessary to complete work at the Site, the following general health and safety guidelines will be followed during the performance of any excavation activities conducted at the Site. Adherence to these guidelines will reduce the potential for worker exposure to impacted media.

- The Site contractor will establish the location of all utilities in the vicinity of the excavation will be established prior to beginning work;
- Non-essential personnel will remain outside the area of excavation;
- Site personnel will conduct a pre-work meeting at the beginning of each day to discuss the health and safety procedures;
- When possible, practice contamination avoidance (e.g., avoid sitting or kneeling down in the excavation);



- Site personnel will maintain equipment used in an excavation in good working order. They will inspect equipment for signs of defect and/or contamination before use and prior to demobilization from the Site;
- Eating, drinking, and smoking are prohibited in active excavation areas;
- The discovery of any condition that would suggest the existence of a situation more hazardous than anticipated will prompt in the evacuation of Site personnel from the excavation and the re-evaluation of the hazard and the level of required protection; and
- Wetting of soil to prevent fugitive dust.

5.12.4 IN CASE OF INJURY

Site personnel will notify the Site foreman immediately in the event of serious injury. This person will follow the steps indicated below:

- Summon appropriate emergency response agency by using the emergency phone numbers provided below. Convey the following information:
  - Nature of emergency;
  - Location of victim;
  - Accident specific information;
  - Time since injury occurred; and
  - Hazards that may impact rescue or treatment.

5.12.5 EMERGENCY CONTACTS/PHONE NUMBERS

Emergency telephone numbers and the directions to the nearest hospital are included below:

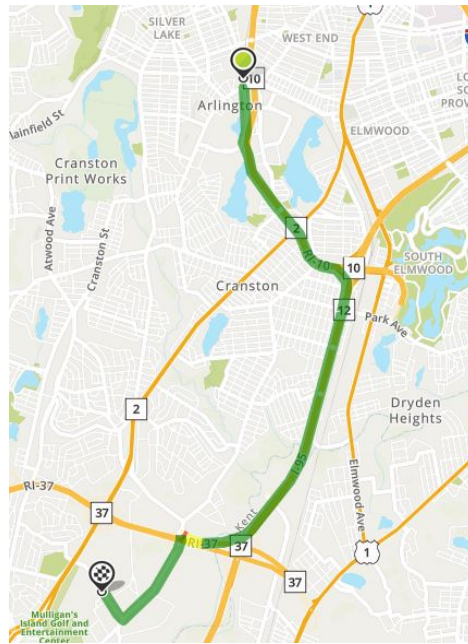
EMERGENCY PHONE NUMBERS

Hospital: Eleanor Slater Hospital 111 Howard Avenue Cranston RI 02920	401-462-3085
Fire: Cranston Fire Department	911 or 401-461-4227
Police: Cranston Police Department	911 or 401-942-2211
Ambulance	911 or 401-461-4227
Poison Control	1-800-222-1222
Department of Environmental Management	401-222-2797
Digsafe Clearance Number:	888-344-7233

5.12.6 DIRECTIONS TO LOCAL HOSPITAL

- Start by going west on Cranston Street towards Garfield Avenue (0.02 miles);
- Take the first left on Garfield Avenue (0.44 miles);
- Turn left onto the RI-10 South ramp (0.01 miles);
- Merge onto RI-10 South (1.28 miles);
- Merge onto I-95 South via Exit 2B toward Warwick (2.38 miles);
- Merge onto RI-37 West via Exit 14B toward Cranston/RI-2 (0.44 miles);

- Take the Pontiac Avenue exit, Exit 3 toward John O. Pastore Government Center (0.15 miles);
- Keep left to take the ramp toward John O. Pastore Government Center/DMV registry (0.03 miles);
- Turn left onto Pontiac Avenue (0.86 miles); and
- Turn right on Howard Avenue (0.26 miles);



#### 5.12.7 SPILLS

In the event of an emergency related to a release of oil or hazardous materials, the following steps will be taken:

- Stop and/or contain the spill at the source without endangering yourself and others;
- Isolate all potential environmental receptors;
- Notify the Site supervisor immediately;
- The Site supervisor or designee will conduct necessary reporting to outside agencies (DEM and/or Fire Department) if:
  - A spill exceeds the reportable quantity and has entered the environment;
  - A spill migrates off-Site and results in personal injury;
  - A spill enters a storm water drain system; and
  - A spill causes a sheen or discoloration to surface waters.
- The Site supervisor will conduct follow-up written notifications to applicable agencies; and
- The Site supervisor will ensure proper follow-up, corrective action and planning to prevent recurrence.

#### 5.12.8 BURIED HAZARDOUS MATERIALS CONTAINERS OR USTs

CMG or the Site contractor is to order the immediate cessation of all excavation activities if any buried drums, USTs, containers, or loose hazardous materials (i.e., asbestos, chemical powders or residues, etc.) are encountered during excavation activities. Site personnel are to secure the area, and immediately notify DEM and the Cranston Fire Department.

CMG will direct additional response actions to fully characterize and mitigate any hazardous conditions we encounter upon inspection and approval of DEM.

#### 5.13 OPERATING LOG [1.10.14]

An operating log will be completed at the discretion of the Site contractor. A copy of this log is provided in Appendix D.

#### 5.14 SECURITY PROCEDURES [1.10.15]

The Site contractor will limit access to appropriate Site personnel only. Should excavation areas remain open while contractor personnel are not on-Site (e.g., after normal working hours), it is the contractor's responsibility to protect the excavation from unauthorized access.

#### 5.15 SHUT-DOWN, CLOSURE AND POST-CLOSURE REQUIREMENTS [1.10.16]

Site personnel will remove heavy machinery and other equipment utilized during construction, including erosion control barriers and temporary fencing upon completion of all of Site construction related activities. CMG will submit a Remedial Action Closure Report to DEM certifying that Site personnel completed construction activities in accordance with the specifications and requirements detailed herein.

The Remedial Action Closure Report will include descriptions of soil encapsulation, including analytical data for clean fill samples and documentation of soil disposal, if necessary. The Remedial Action Closure Report will document any substantial variances from this RAWP.

#### 5.16 INSTITUTIONAL CONTROLS [1.10.17]

First Hartford will apply an ELUR to the Site to specify the restrictions and provisions appropriate for the current and future use of the Site.

The ELUR will serve to ensure:

- No residential use of the Site is permitted that is contrary to DEM approvals and restrictions;
- Require DEM notification should soil excavation be planned in contaminated areas and implementation of a SMP for this work;
- Provide for long-term maintenance, monitoring and other measures necessary to assure the integrity of soil encapsulation;
- Provide for annual evaluations of the Site to document that the ELUR requirements are met;
- An appropriately qualified environmental professional or person(s) with direct knowledge of past and present conditions at the Site is to perform annual evaluations; and

- An annual report documenting the findings of each evaluation will be provided to DEM.

#### 5.17 COMPLIANCE DETERMINATION [1.10.18]

The primary compliance objective for this Site is to eliminate direct exposure to impacted soils by isolation underneath building footprints, asphalt/concrete surfaces, and/or up to 1' of clean fill overlying a geotextile barrier. CMG proposes to demonstrate compliance of the remedial objective/remedy through photographic documentation of soil encapsulation confirming thickness, analytical reports for the clean fill, submittal of a Remedial Action Closure Report and the recording of the ELUR and post-construction SMP.

#### 5.18 CERTIFICATIONS [1.10.19]

See signature page of this RAWP (preceding the Table of Contents).

### 6.0 LIMITATIONS & CONDITIONS

#### 6.1 METHODOLOGY

CMG Environmental, Inc. followed guidelines set forth by the DEM in the Remediation Regulations and employed a “level of diligence reasonably necessary to obtain the quantity and quality of information adequate to assess” the Site.

Moreover, CMG followed guidelines set forth by DEM in the Remediation Regulations. We specifically complied with IRA requirements set forth in 250-RICR-140-30-1 Section 1.10.

#### 6.2 SCOPE OF SERVICES

Mr. Shamus Finney of First Hartford Realty Corporation authorized CMG to conduct Site assessment activities, including preparation of this RAWP on March 9, 2021. We performed the following scope of services between November 2021 and March 2022:

- Conducted an LSI at the Site to investigate subsurface soil and groundwater conditions at the Site which entailed the advancement of 8 soil borings, with subsequent installation of groundwater monitoring wells in each of these;
- Field-screened soil samples for TOV;
- Conducted an elevation survey of monitoring well casings on and collected groundwater samples on November 19, 2021.
- Submitted selected soil and groundwater samples for laboratory analysis of RCRA8, VOCs by EPA Method 8260, SVOCs with target PAHs by Method 8270 and TPH by EPA Method 8015;
- Compared all analytical results to DEM standards; and
- Prepared this RAWP.

#### 6.3 GENERAL LIMITATIONS

CMG conducted RAWP actions in accordance with generally accepted engineering and hydrogeologic practices. CMG makes no other warranty, express or implied. CMG cannot

provide absolute assurance that we have identified any and all recognized environmental conditions (including DEM reportable conditions) at the Site.

Where CMG included visual or other observations in this report, they represent conditions visibly and/or physically observed at the time of the inspection, or verified through interviewing or by record review, and may not be indicative of past or future Site conditions.

Please be advised that environmental conditions at the Site and surrounding properties may change in time. CMG does not render an opinion as to environmental Site conditions that change after the date of the environmental studies reported herein.

#### 6.4 SPECIFIC CONDITIONS OF THE RAWP

CMG based the conclusions of this report, in large part, on information provided by the client, their agents, or third parties, including state or local officials. CMG assumes no responsibility for the accuracy and completeness of this information.

CMG based the conclusions discussed herein solely and in reliance upon information collected during activities detailed in our Scope of Services (see Section 6.2 above).

CMG's subsurface investigation included the collection and laboratory analysis of soil and groundwater samples from several locations throughout the Site. However, CMG did not intend this study to be an exhaustive investigation of subsurface conditions at the Site. CMG restricted the scope of services for this investigation due to time and/or cost constraints, and though we did undertake a significant amount of analytical testing, currently unrecognized subsurface conditions may exist at the Site. Increasing exploration (such as placement of test pits, completion of additional soil borings with subsequent collection of soil samples for laboratory analysis, installation of additional groundwater monitoring wells with subsequent collection of groundwater samples for laboratory analysis, and conducting surface geophysical survey techniques) may better delineate subsurface conditions.

CMG's Site inspection included observing the Site and surrounding area. However not all Site boundaries were clearly delineated, making it difficult to distinguish certain Site features from those of the surrounding area. Therefore, the location of certain Site features described in this Report and depicted on the figures may be approximate.

#### 6.5 RELIANCE

CMG prepared this RAWP for the sole use of First Hartford Realty Corporation, its successors and assigns to address RAWP reporting obligations regarding assessment and remediation activities. CMG does not authorize use of this information by others for any reason, except with our prior written consent.

## 7.0 REFERENCES

### CITY

Assessor's Office: records reviewed December 2, 2021.

### RHODE ISLAND

The University of Rhode Island "Rhode Island Geographic Information System" information obtained December 2, 2021 from <https://www.rigis.org/>.

Rules and Regulations for the Investigation and Remediation of Hazardous Material Releases (250-RCR-140-30-1) revised January 24, 2019.

### UNITED STATES

Department of Agriculture, Soil Conservation Service: "Web Soil Survey" (<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>).

Geological Survey: "Providence, RI 7.5-minute series topographic quadrangle, dated 2021.

### PREVIOUS ENVIRONMENTAL REPORTS

Paragon Environmental Service, Inc.: "Limited Subsurface Investigation" dated December 2000;

CMG Environmental, Inc.: "Remedial Action Work Plan Trolley Barn Portion of Former Narragansett Brewery" dated October 31, 2005;

Earth Science, LLC: "Phase I Environmental Site Assessment Report AutoZone 5132 777 Cranston Street, Cranston Rhode Island 02920" dated August 11, 2021; and

CMG Environmental, Inc.: "Limited Subsurface Investigation Former Trolley Barn 777 Cranston Street, Cranston Rhode Island" dated December 3, 2021;

## FIGURES

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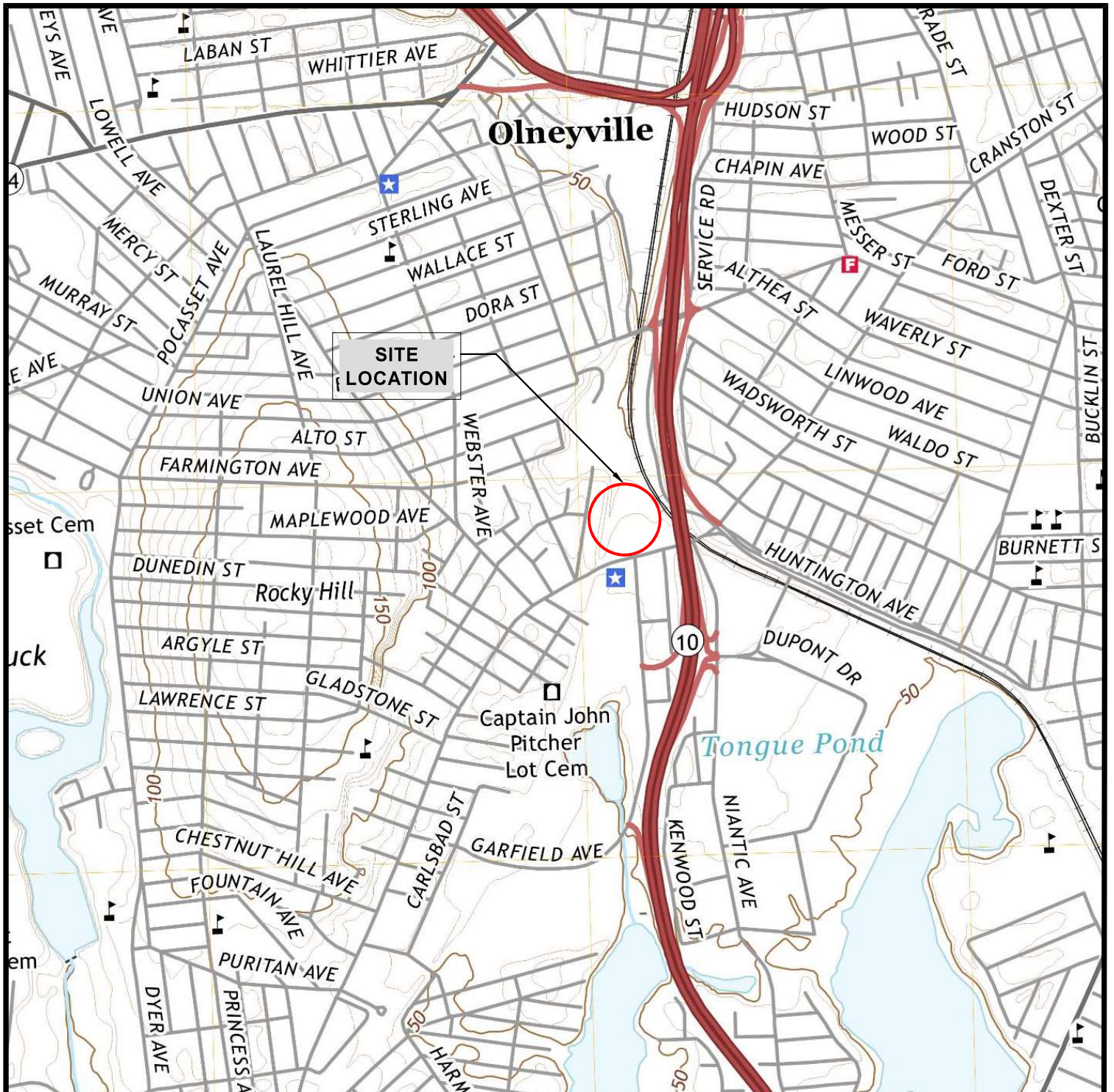
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FIGURE 1 – SITE LOCATION

FIGURE 2 – SITE PLAN

FIGURE 3 – AREA OF PROPOSED HYDRAULIC LOADING

FIGURE 4 – PROPOSED SITE DESIGN

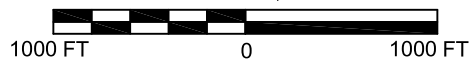


**FIGURE 1: SITE LOCATION**  
 ASSESSORS PLAT 7, LOT 1  
 CRANSTON STREET  
 CRANSTON, RI  
 CMG ID 2021-060

TOWN LOCATION - CRANSTON, RI



SCALE 1:24,000



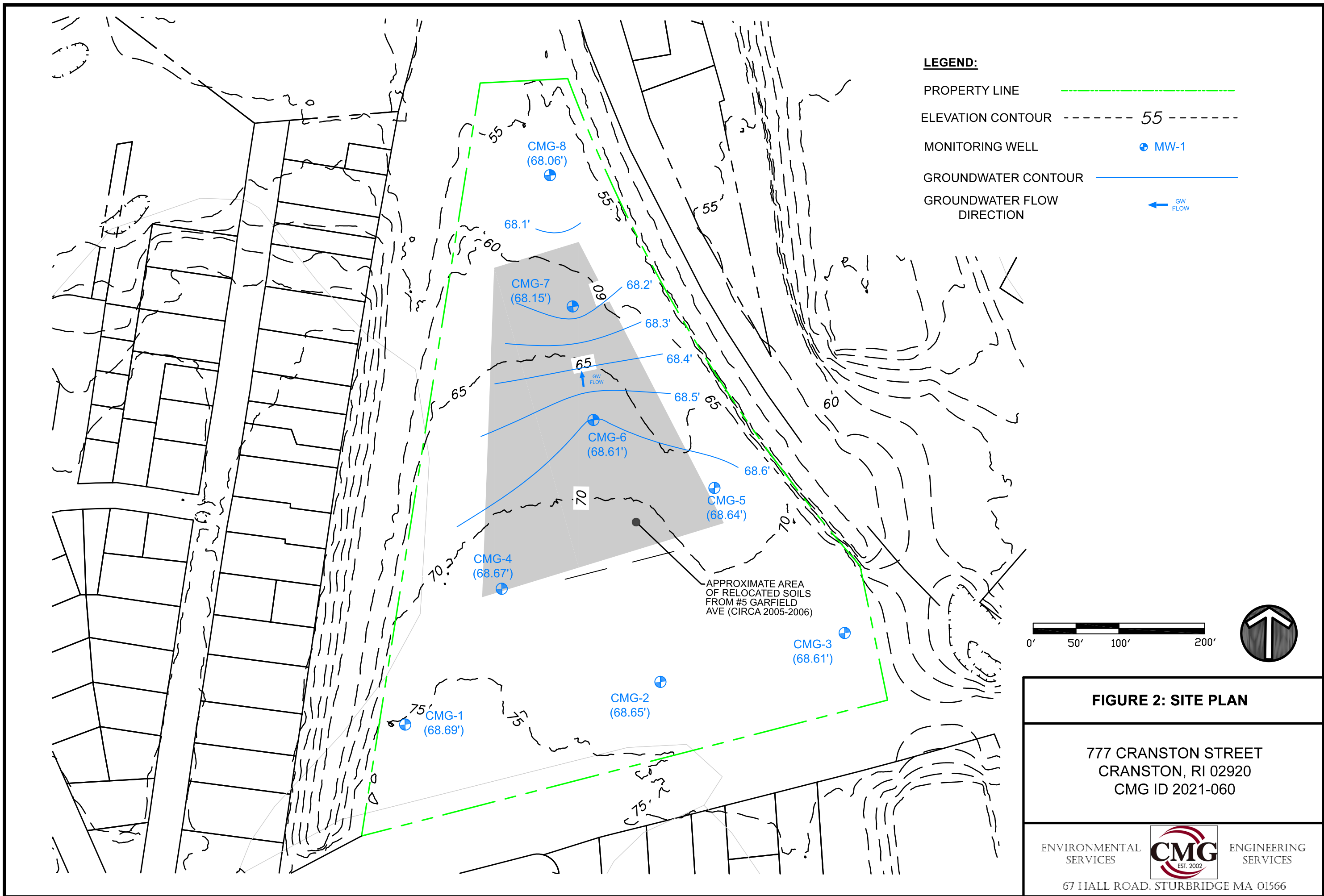
ENVIRONMENTAL  
 SERVICES



ENGINEERING  
 SERVICES

67 HALL ROAD, STURBRIDGE MA 01566





**FIGURE 2: SITE PLAN**

777 CRANSTON STREET  
 CRANSTON, RI 02920  
 CMG ID 2021-060

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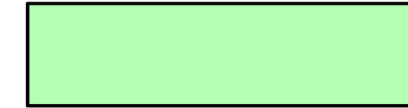


**LEGEND:**

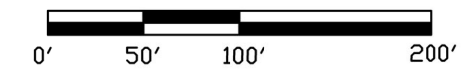
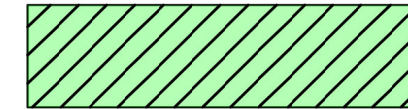
PROPERTY LINE



UNRESTRICTED  
HYDRAULIC LOADING



AREA OF PROPOSED  
HYDRAULIC LOADING



**FIGURE 3: PROPOSED  
HYDRAULIC LOAD AREAS**

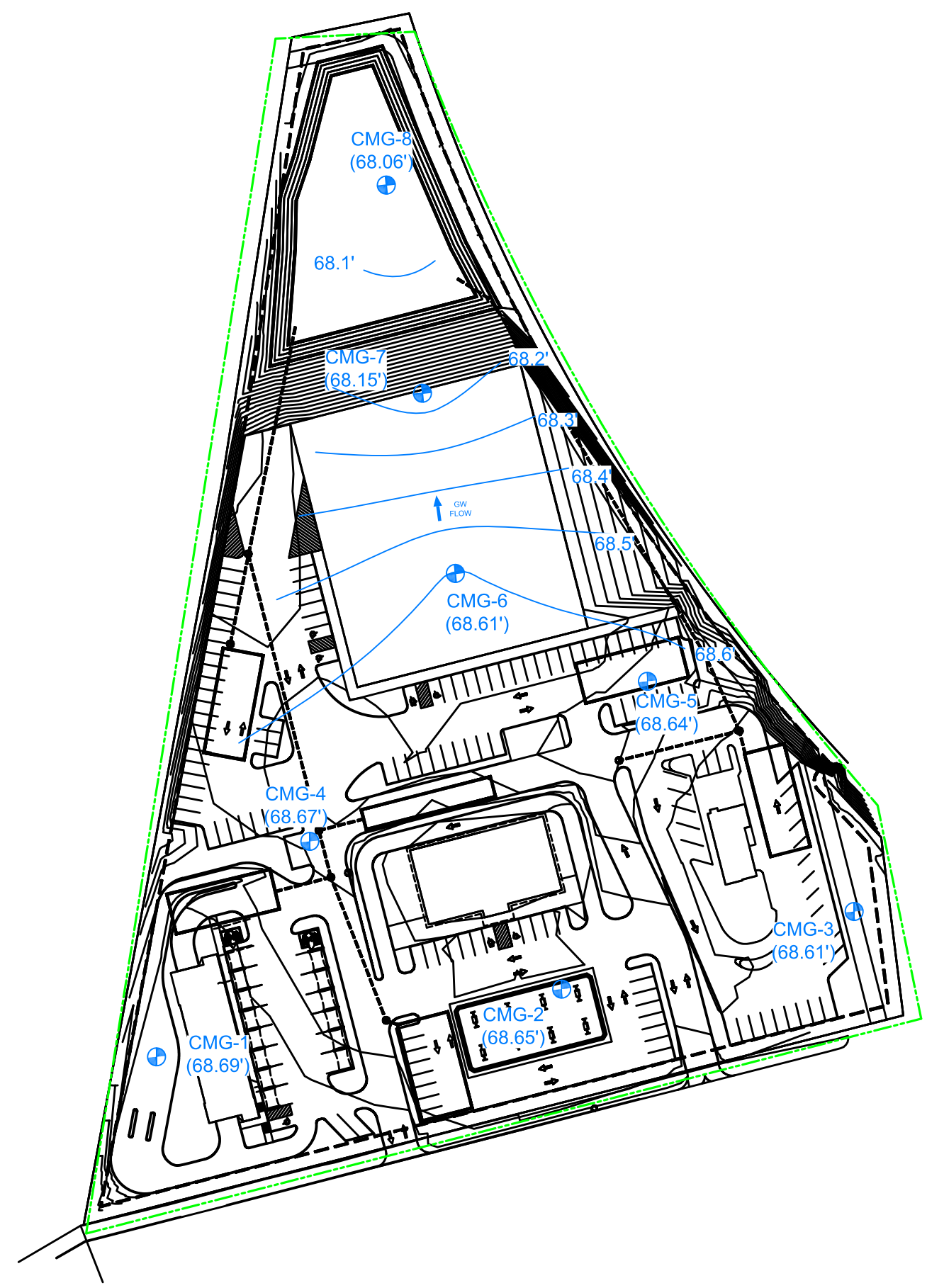
777 CRANSTON STREET  
CRANSTON, RI 02920  
CMG ID 2021-060

ENVIRONMENTAL  
SERVICES



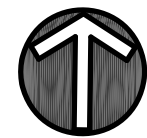
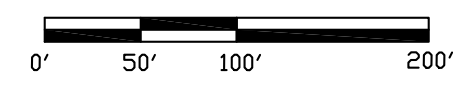
ENGINEERING  
SERVICES

67 HALL ROAD, STURBRIDGE MA 01566



**LEGEND:**

- PROPERTY LINE
- EDGE OF PAVEMENT
- MONITORING WELL MW-1
- GROUNDWATER CONTOUR
- GROUNDWATER FLOW DIRECTION



**FIGURE 4: PROPOSED SITE DESIGN  
(BY OTHERS)**

777 CRANSTON STREET  
CRANSTON, RI 02920  
CMG ID 2021-060

ENVIRONMENTAL SERVICES		ENGINEERING SERVICES
67 HALL ROAD, STURBRIDGE MA 01566		

## TABLES

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TABLE 1 – SOIL QUALITY DATA

TABLE 2 – GROUNDWATER QUALITY DATA

TABLE 3 – HISTORIC SOIL QUALITY DATA

TABLE 1

SOIL ANALYTICAL DATA (MG/KG)

Test	Parameter	Method 1 Direct Exposure Criteria		B-1-2*	B-3-2*	B-5-2*	CMG-1		CMG-2		CMG-3		CMG-4		CMG-5			CMG-6	
		Industrial	Residential	10/5/21 2'	10/5/21 2'	10/5/21 2'	11/15/21 1-4'	11/15/21 35-37'	11/15/21 2-4'	11/15/21 35-37'	11/15/21 2-4'	11/16/21 30-32'	11/16/21 2-4'	11/16/21 30-32'	0-2'	11/16/21 5-7'	25-27'	11/17/21 2-4'	11/17/21 25-27'
PID	Total Organic Vapors (ppmv)	—		NA	NA	NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TPH	Total Petroleum Hydrocarbons	2,500	500	290	BRL<280	BRL<260	NT	BRL<60	NT	BRL<55	NT	BRL<65	NT	BRL<64	NT	NT	BRL<53	NT	BRL<61
VOCs	All Volatile Organic Compounds	Varies	Varies	All BRL	All BRL	All BRL	NT	All BRL	NT	All BRL	NT	All BRL	NT	All BRL	NT	NT	All BRL	NT	All BRL
PAHs	Acenaphthene	10,000	43	0.840	0.260	BRL<0.24	BRL<0.25	NT	BRL<0.25	NT	BRL<0.26	BRL<0.30	BRL<0.27	BRL<0.30	BRL<0.24	BRL<0.24	BRL<0.25	BRL<0.27	BRL<0.28
	1,1,-Biphenyl	10,000	0.8	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	1,2,4-Trichlorobenzene	10,000	96	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	1,2-Dichlorobenzene	10,000	510	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	1,3-Dichlorobenzene	10,000	430	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	1,4-Dichlorobenzene	240	27	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2,4-Dichlorophenol	6,100	30	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2,4,5-Trichlorophenol	10,000	330	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2,4,6-Trichlorophenol	520	58	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2,4-Dimethyl phenol	10,000	1,400	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2,4-Dinitrophenol	4,100	160	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2,4-Dinitrotoluene	8.4	0.9	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2-Chlorophenol	10,000	50.0	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	2-Methylnaphthalene	10,000	123	0.37	BRL<0.25	BRL<0.24	BRL<0.25	NT	BRL<0.25	NT	BRL<0.26	BRL<0.30	BRL<0.27	BRL<0.30	BRL<0.24	BRL<0.24	BRL<0.25	BRL<0.27	BRL<0.28
	3,3-Dichlorobenzidine	13	1.4	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	4-Chloroaniline (p-)	8,200	310	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Acenaphthylene	10,000	23	0.34	BRL<0.25	BRL<0.24	0.31	NT	BRL<0.25	NT	BRL<0.26	BRL<0.30	0.29	BRL<0.30	BRL<0.24	BRL<0.24	BRL<0.25	BRL<0.27	BRL<0.28
	Anthracene	10,000	35	2.70	0.54	BRL<0.24	0.48	NT	BRL<0.25	NT	BRL<0.26	BRL<0.30	0.62	BRL<0.30	BRL<0.24	BRL<0.24	BRL<0.25	BRL<0.27	BRL<0.28
	Benzo(a)anthracene	7.8	0.9	4.90	1.90	0.74	1.90	NT	0.38	NT	0.52	BRL<0.30	4.90	BRL<0.30	0.44	0.35	BRL<0.25	0.44	BRL<0.28
	Benzo(a)pyrene	0.8	0.4	4.20	1.80	0.74	1.80	NT	0.42	NT	0.57	BRL<0.30	6.50	BRL<0.30	0.46	0.40	BRL<0.25	0.42	BRL<0.28
	Benzo(b)fluoranthene	7.8	0.9	3.50	1.70	0.64	1.70	NT	0.40	NT	0.53	BRL<0.30	6.70	BRL<0.30	0.42	0.37	BRL<0.25	0.39	BRL<0.28
	Benzo(g,h,i)perylene	10,000	0.8	2.20	1.20	0.54	1.20	NT	0.30	NT	0.43	BRL<0.30	5.60	BRL<0.30	0.31	0.27	BRL<0.25	0.28	BRL<0.28
	Benzo(k)fluoranthene	78	0.9	3.30	1.70	0.65	1.50	NT	0.36	NT	0.49	BRL<0.30	5.00	BRL<0.30	0.38	0.35	BRL<0.25	0.38	BRL<0.28
	Bis(2-chloroethyl)ether	5.2	0.6	BRL<0.35	BRL<0.36	BRL<0.34	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Bis(2-chloroisopropyl)ether	82	9.1	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Bis(2-ethylhexyl)phthalate	410	46.0	BRL<0.35	BRL<0.36	BRL<0.34	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Chrysene	780	0.4	4.40	1.90	0.75	1.90	NT	0.42	NT	0.56	BRL<0.30	5.90	BRL<0.30	0.48	0.38	BRL<0.25	0.46	BRL<0.28
	Dibenzo(a,h)anthracene	0.8	0.4	0.69	0.34	BRL<0.24	0.30	NT	BRL<0.25	NT	BRL<0.26	BRL<0.30	2.10	BRL<0.30	BRL<0.24	BRL<0.24	BRL<0.25	BRL<0.27	BRL<0.28
	Diethyl phthalate	10,000	340	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Dimethyl phthalate	10,000	1,900	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Fluoranthene	10,000	20	18.0	4.00	1.50	3.70	NT	0.68	NT	0.90	BRL<0.30	6.30	BRL<0.30	0.89	0.69	BRL<0.25	0.96	BRL<0.28
	Fluorene	10,000	28	1.20	BRL<0.25	BRL<0.24	BRL<0.25	NT	BRL<0.25	NT	BRL<0.26	BRL<0.30	BRL<0.27	BRL<0.30	BRL<0.24	BRL<0.24	BRL<0.25	BRL<0.27	BRL<0.28
	Hexachlorobenzene	3.6	0.4	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Hexachlorobutadiene	73	8.2	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Hexachloroethane	410	46	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Indeno(1,2,3-cd)pyrene	7.8	0.9	2.80	1.50	0.63	1.20	NT	0.36	NT	0.47	BRL<0.30	6.70	BRL<0.30	0.34	0.29	BRL<0.25	0.31	BRL<0.28
	Naphthalene	10,000	54	0.26	BRL<0.25	BRL<0.24	BRL<0.25	NT	BRL<0.25	NT	BRL<0.26	BRL<0.30	BRL<0.27	BRL<0.30	BRL<0.24	BRL<0.24	BRL<0.25	BRL<0.27	BRL<0.28
	Pentachlorophenol	48	5.3	BRL<0.35	BRL<0.36	BRL<0.34	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Phenanthrene	10,000	40	6.90	2.00	0.85	2.20	NT	0.46	NT	0.55	BRL<0.30	2.90	BRL<0.30	0.53	0.35	BRL<0.25	0.33	BRL<0.28
	Phenol	10,000	6,000	BRL<0.25	BRL<0.25	BRL<0.24	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
	Pyrene	10,000	13	17	3.30	1.30	3.00	NT	0.60	NT	0.79	BRL<0.30	5.20	BRL<0.30	0.79	0.62	BRL<0.25	0.82	BRL<0.28
Total Metals	Arsenic	7.0	7.0	4.21	13.2	2.31	2.19	NT	1.69	NT	1.76	NT	0.76	NT	2.97	1.63	NT	7.16	NT
	Barium	10,000	5,500	34.0	22.2	27.6	36.8	NT	18.5	NT	31.5	NT	17.3	NT	36.9	35.7	NT	67.5	NT
	Cadmium	1,000	39	1.00	1.39	0.51	BRL<0.35	NT	BRL<0.33	NT	BRL<0.35	NT	0.69	NT	1.17	0.58	NT	1.66	NT
	Chromium	10,000	1,400	15.8	28.3	5.29	7.24	NT	7.80	NT	5.04	NT	2.60	NT	8.96	5.17	NT	57.1	NT
	Lead	500	150	120	51.2	38.1	106	NT	13.7	NT	131	NT	4.15	NT	85.6	26.7	NT	48.6	NT
	Mercury	610	23	0.31	0.10	0.03	0.13	NT	BRL<0.03	NT	0.49	NT	0.92	NT	0.05	BRL<0.03	NT	0.20	NT
	Selenium	10,000	390	BRL<1.4	BRL<1.5	BRL<1.4	BRL<1.4	NT	BRL<1.3	NT	BRL<1.4	NT	BRL<1.3	NT	BRL<1.3	BRL<1.4	NT	BRL<1.5	NT
	Silver	10,000	200	BRL<0.35	BRL<0.38	BRL<0.35	BRL<0.35	NT	BRL<0.33	NT	BRL<0.35	NT	0.58	NT	BRL<0.34	BRL<0.35	NT	BRL<0.37	NT
SPLP (PAHs)	All PAHs	NA <sup>GB</sup>		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	All BRL	NT	NT	NT
SPLP Metals	Arsenic	NA <sup>GB</sup>		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	BRL<0.004	NT	NT	NT
	Barium	NA <sup>GB</sup>		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	BRL<0.010	NT	NT	NT
	Cadmium	NA <sup>GB</sup>		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	BRL<0.005	NT	NT	NT
	Chromium	NA <sup>GB</sup>		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	BRL<0.010	NT	NT	NT
	Lead	NA <sup>GB</sup>		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	BRL<0.010	NT	NT	NT
	Mercury	NA <sup>GB</sup>		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	BRL<0.0005	NT	NT	NT
	Selenium	NA <sup>GB</sup>		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	BRL<0.020	NT	NT	NT
	Silver	NA <sup>GB</sup>		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	BRL<0.010	NT	NT	NT
Other	Percent Solids	—		93.0%	89.0%	96.0%	94.0%	83.0%	95.0%	89.0%	90.0%	77.0%	88.0%	77.0%	95.0%	94.0%	91.0%	86.0%	81.0%

Notes  
 BRL = Below laboratory Reporting Limit  
 NA<sup>GB</sup> = Not established (for that parameter)  
 \*Indicates Sample Collected by the Mula Group  
 Blue highlighted text = Exceeds Method 1 Industrial/Commercial Criteria  
 Yellow highlight = Exceeds Mmethod 1 Residential Criteria  
 NA<sup>GB</sup> - No applicable standard for soils in a GB groundwater setting  
 TOV = Total Organic Vapors  
 ppmv = Parts per million by volume as "benzene"  
 SPLP = Reported in µg/L.

TABLE 1

SOIL ANALYTICAL DATA (MG/KG)

Test	Parameter	Method 1 Direct Exposure Criteria		CMG-7				CMG-8	
		Industrial	Residential	11/17/21				11/17/21	11/17/21
				2-4'	5-7'	10-12'	25-27'	2-4'	20-22'
PID	Total Organic Vapors (ppmv)	—		0.0	0.0	0.0	0.0	0.0	0.0
TPH	Total Petroleum Hydrocarbons	2,500	500	NT	NT	NT	BRL<64	NT	BRL<57
VOCs	All Volatile Organic Compounds	Varies	Varies	NT	NT	NT	All BRL	NT	All BRL
PAHs	Acenaphthene	10,000	43	BRL<0.26	BRL<0.24	BRL<0.24	BRL<0.30	BRL<0.25	BRL<0.26
	1,1,-Biphenyl	10,000	0.8	NT	NT	NT	NT	NT	NT
	1,2,4-Trichlorobenzene	10,000	96	NT	NT	NT	NT	NT	NT
	1,2-Dichlorobenzene	10,000	510	NT	NT	NT	NT	NT	NT
	1,3-Dichlorobenzene	10,000	430	NT	NT	NT	NT	NT	NT
	1,4-Dichlorobenzene	240	27	NT	NT	NT	NT	NT	NT
	2,4-Dichlorophenol	6,100	30	NT	NT	NT	NT	NT	NT
	2,4,5-Trichlorophenol	10,000	330	NT	NT	NT	NT	NT	NT
	2,4,6-Trichlorophenol	520	58	NT	NT	NT	NT	NT	NT
	2,4-Dimethyl phenol	10,000	1,400	NT	NT	NT	NT	NT	NT
	2,4-Dinitrophenol	4,100	160	NT	NT	NT	NT	NT	NT
	2,4-Dinitrotoluene	8.4	0.9	NT	NT	NT	NT	NT	NT
	2-Chlorophenol	10,000	50.0	NT	NT	NT	NT	NT	NT
	2-Methylnaphthalene	10,000	123	BRL<0.26	BRL<0.24	BRL<0.24	BRL<0.30	BRL<0.25	BRL<0.26
	3,3-Dichlorobenzidine	13	1.4	NT	NT	NT	NT	NT	NT
	4-Chloroaniline (p-)	8,200	310	NT	NT	NT	NT	NT	NT
	Acenaphthylene	10,000	23	BRL<0.26	BRL<0.24	BRL<0.24	BRL<0.30	BRL<0.25	BRL<0.26
	Anthracene	10,000	35	BRL<0.26	BRL<0.24	BRL<0.24	BRL<0.30	BRL<0.25	BRL<0.26
	Benzo(a)anthracene	7.8	0.9	0.99	BRL<0.24	BRL<0.24	BRL<0.30	0.49	BRL<0.26
	Benzo(a)pyrene	0.8	0.4	1.20	0.27	BRL<0.24	BRL<0.30	0.49	BRL<0.26
	Benzo(b)fluoranthene	7.8	0.9	1.40	0.27	BRL<0.24	BRL<0.30	0.50	BRL<0.26
	Benzo(g,h,i)perylene	10,000	0.8	1.00	BRL<0.24	BRL<0.24	BRL<0.30	0.30	BRL<0.26
	Benzo(k)fluoranthene	78	0.9	1.20	BRL<0.24	BRL<0.24	BRL<0.30	0.44	BRL<0.26
	Bis(2-chloroethyl)ether	5.2	0.6	NT	NT	NT	NT	NT	NT
	Bis(2-chloroisopropyl)ether	82	9.1	NT	NT	NT	NT	NT	NT
	Bis(2-ethylhexyl)phthalate	410	46.0	NT	NT	NT	NT	NT	NT
	Chrysene	780	0.4	1.10	0.26	BRL<0.24	BRL<0.30	0.51	BRL<0.26
	Dibenzo(a,h)anthracene	0.8	0.4	0.32	BRL<0.24	BRL<0.24	BRL<0.30	BRL<0.25	BRL<0.26
	Diethyl phthalate	10,000	340	NT	NT	NT	NT	NT	NT
	Dimethyl phthalate	10,000	1,900	NT	NT	NT	NT	NT	NT
	Fluoranthene	10,000	20	1.40	0.38	BRL<0.24	BRL<0.30	1.00	BRL<0.26
	Fluorene	10,000	28	BRL<0.26	BRL<0.24	BRL<0.24	BRL<0.30	BRL<0.25	BRL<0.26
	Hexachlorobenzene	3.6	0.4	NT	NT	NT	NT	NT	NT
Hexachlorobutadiene	73	8.2	NT	NT	NT	NT	NT	NT	
Hexachloroethane	410	46	NT	NT	NT	NT	NT	NT	
Indeno(1,2,3-cd)pyrene	7.8	0.9	1.10	BRL<0.24	BRL<0.24	BRL<0.30	0.37	BRL<0.26	
Naphthalene	10,000	54	BRL<0.26	BRL<0.24	BRL<0.24	BRL<0.30	BRL<0.25	BRL<0.26	
Pentachlorophenol	48	5.3	NT	NT	NT	NT	NT	NT	
Phenanthrene	10,000	40	0.50	BRL<0.24	BRL<0.24	BRL<0.30	0.76	BRL<0.26	
Phenol	10,000	6,000	NT	NT	NT	NT	NT	NT	
Pyrene	10,000	13	1.20	0.37	BRL<0.24	BRL<0.30	0.85	BRL<0.26	
Total Metals	Arsenic	7.0	7.0	2.65	2.81	10.4	0.90	2.53	NT
	Barium	10,000	5,500	51.3	33.4	10.4	NT	29.8	NT
	Cadmium	1,000	39	0.99	0.84	0.33	NT	0.75	NT
	Chromium	10,000	1,400	12.6	7.57	2.45	NT	11.1	NT
	Lead	500	150	68.6	98.5	3.13	NT	105	NT
	Mercury	610	23	0.16	0.17	BRL<0.03	NT	0.07	NT
	Selenium	10,000	390	BRL<1.4	BRL<1.4	BRL<1.3	NT	BRL<1.5	NT
	Silver	10,000	200	BRL<0.34	BRL<0.36	BRL<0.32	NT	BRL<0.38	NT
SPLP (PAHs)	All PAHs	NA <sup>GB</sup>		NT	All BRL	All BRL	NT	NT	NT
SPLP Metals	Arsenic	NA <sup>GB</sup>		NT	0.004	BRL<0.004	NT	NT	NT
	Barium			NT	BRL<0.010	BRL<0.010	NT	NT	NT
	Cadmium			NT	BRL<0.005	BRL<0.005	NT	NT	NT
	Chromium			NT	BRL<0.010	BRL<0.010	NT	NT	NT
	Lead			NT	BRL<0.010	BRL<0.010	NT	NT	NT
	Mercury			NT	BRL<0.0005	BRL<0.0005	NT	NT	NT
	Selenium			NT	BRL<0.020	BRL<0.020	NT	NT	NT
Other	Percent Solids	—		91.0%	94.0%	95.0%	77.0%	93.0%	87.0%

Notes  
 BRL = Below laboratory Reporting Limit  
 NA<sup>GB</sup> = Not established (for that parameter)  
 \*Indicates Sample Collected by the Mula Group  
 Blue highlighted text = Exceeds Method 1 Industrial/Commercial Criteria  
 Yellow highlight = Exceeds Method 1 Residential Criteria  
 NA<sup>GB</sup> - No applicable standard for soils in a GB groundwater setting  
 TOV = Total Organic Vapors  
 ppmv = Parts per million by volume as "benzene"  
 SPLP = Reported in µg/L.

**TABLE 2**

**GROUNDWATER QUALITY DATA (µg/L)**

Test	Parameter	Method 1 Groundwater Objectives	CMG-1	CMG-2	CMG-3	CMG-4	CMG-5	CMG-6	CMG-7	CMG-8
		GB	11/19/21 31.31'	11/19/21 31.31'	11/19/21 30.34'	11/19/21 28.75'	11/19/21 25.10'	11/19/21 26.43'	11/19/21 23.29'	11/19/21 17.10'
TPH	Total Petroleum Hydrocarbons	NA <sup>GB</sup>	BRL<470	BRL<470	BRL<490	BRL<500	BRL<470	BRL<470	BRL<470	BRL<470
VOCs	Benzene	140	BRL<0.70	BRL<0.70	BRL<0.70	BRL<0.70	BRL<0.70	BRL<0.70	BRL<0.70	BRL<0.70
	Carbon Tetrachloride	70	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	Chlorobenzene	3,200	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	1,2-Dibromo-3-chloropropane	2	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	1,2-Dichloroethane	110	BRL<0.60	BRL<0.60	BRL<0.60	BRL<0.60	BRL<0.60	BRL<0.60	BRL<0.60	BRL<0.60
	1,1-Dichloroethene	7	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	cis-1,2-Dichloroethene	2,400	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	trans-1,2-Dichloroethene	2,800	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	1,2-Dichloropropane	3,000	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	Ethylbenzene	1,600	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	Styrene	2,200	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	Methyl Tertiary-Butyl Ether	5,000	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	Tetrachloroethene (PCE)	150	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
	Toluene	1,700	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0
1,1,1-Trichloroethane	3,100	BRL<1.0	BRL<1.0	BRL<1.0	1.6	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	
Trichloroethene	540	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	
Vinyl Chloride	2	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	BRL<1.0	
PAHs	Acenaphthene	NA <sup>GB</sup>	BRL<0.48	BRL<0.48	BRL<0.47	BRL<0.51	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	2-Methylnaphthalene		BRL<0.48	BRL<0.48	BRL<0.47	BRL<0.51	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Acenaphthylene		BRL<0.48	BRL<0.48	BRL<0.47	0.78	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Anthracene		BRL<0.48	BRL<0.48	BRL<0.47	0.92	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Benzo(a)anthracene		BRL<0.48	BRL<0.48	BRL<0.47	0.61	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Benzo(a)pyrene		BRL<0.48	BRL<0.48	BRL<0.47	0.44	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Benzo(b)fluoranthene		BRL<0.48	BRL<0.48	BRL<0.47	BRL<0.51	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Benzo(g,h,i)perylene		BRL<0.48	BRL<0.48	BRL<0.47	BRL<0.51	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Benzo(k)fluoranthene		BRL<0.48	BRL<0.48	BRL<0.47	BRL<0.51	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Chrysene		BRL<0.48	BRL<0.48	BRL<0.47	0.65	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Dibenzo(a,h)anthracene		BRL<0.48	BRL<0.48	BRL<0.47	BRL<0.51	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Fluoranthene		BRL<0.48	BRL<0.48	BRL<0.47	2.60	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Fluorene		BRL<0.48	BRL<0.48	BRL<0.47	1.00	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Indeno(1,2,3-cd)pyrene		BRL<0.48	BRL<0.48	BRL<0.47	BRL<0.51	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
	Naphthalene		BRL<0.48	BRL<0.48	BRL<0.47	0.63	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47
Phenanthrene	BRL<0.48	BRL<0.48	BRL<0.47	3.80	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47		
Pyrene	BRL<0.48	BRL<0.48	BRL<0.47	1.90	BRL<0.48	BRL<0.49	BRL<0.47	BRL<0.47		
SVOCs	Semi-Volatile Organic Compounds	Varies	All BRL	All BRL	All BRL	All BRL	All BRL	All BRL	All BRL	All BRL
Total Metals	Arsenic	NA <sup>GB</sup>	BRL<4	BRL<4	5	9	BRL<4	6	5	BRL<4
	Barium		38	80	42	152	58	76	84	BRL<2
	Cadmium		BRL<1	BRL<1	BRL<1	BRL<1	BRL<1	BRL<1	BRL<1	BRL<1
	Chromium		BRL<1	BRL<1	BRL<1	BRL<1	BRL<1	BRL<1	BRL<1	BRL<1
	Lead		BRL<2	BRL<2	BRL<2	BRL<2	BRL<2	BRL<2	BRL<2	BRL<2
	Mercury		BRL<0.2	BRL<0.2	BRL<0.2	BRL<0.2	BRL<0.2	BRL<0.2	BRL<0.2	BRL<0.2
	Selenium		BRL<11	BRL<11	BRL<11	BRL<11	BRL<11	BRL<11	BRL<11	BRL<11
	Silver		BRL<1	BRL<1	BRL<1	BRL<1	BRL<1	BRL<1	BRL<1	BRL<1

Notes BRL = Below laboratory Reporting Limit  
 NA<sup>GB</sup> = No applicable standard for GB groundwater  
 GB - Groundwater Reporting Category

TABLE 3

HISTORIC SOIL ANALYTICAL DATA (MG/KG)

Test	Parameter	M1 Direct Exposure Criteria		TP-1 0-2'	TP-2		TP-3 0-2'	TP-4 0-2'	TP-5			TP-6 0-2'	TP-7 0-2'
		Industrial	Residential		0-2'	4-6'			0-2'	4-6'	6-8'		
PAHs	Acenaphthene	10,000	43	BRL<0.142	BRL<0.161	BRL<0.142	BRL<0.141	BRL<0.140	0.222	BRL<0.137	BRL<0.134	BRL<0.143	0.428
	Acenaphthylene	10,000	23	BRL<0.142	BRL<0.161	BRL<0.142	BRL<0.141	0.747	BRL<0.134	BRL<0.137	BRL<0.134	BRL<0.143	BRL<0.141
	Anthracene	10,000	35	BRL<0.142	BRL<0.161	BRL<0.142	0.191	0.698	0.522	0.354	BRL<0.134	0.157	0.930
	Benzo(a)anthracene	7.8	0.9	0.463	1.02	0.371	1.07	3.22	0.985	1.15	BRL<0.134	0.446	2.48
	Benzo(a)pyrene	0.8	0.4	0.463	1.15	0.429	0.917	3.05	0.939	1.09	BRL<0.134	0.456	2.27
	Benzo(b)fluoranthene	7.8	0.9	0.533	1.51	0.532	1.100	3.72	1.06	1.33	BRL<0.134	0.536	2.67
	Benzo(g,h,i)perylene	10,000	0.8	0.252	0.855	0.323	0.434	1.38	0.445	0.554	BRL<0.134	0.248	1.08
	Benzo(k)fluoranthene	78	0.9	0.294	0.784	0.278	0.508	1.89	0.528	0.648	BRL<0.134	0.269	1.48
	Chrysene	780	0.4	0.497	1.17	0.407	1.04	3.22	1.07	1.26	BRL<0.134	0.484	2.46
	Dibenzo(a,h)anthracene	0.8	0.4	BRL<0.142	0.225	BRL<0.142	BRL<0.141	0.410	BRL<0.134	BRL<0.137	BRL<0.134	BRL<0.143	0.300
	Fluoranthene	10,000	20	0.852	1.59	0.525	2.20	5.04	2.16	2.44	BRL<0.134	0.898	4.98
	Fluorene	10,000	28	BRL<0.142	BRL<0.161	BRL<0.142	BRL<0.141	0.274	0.341	0.147	BRL<0.134	BRL<0.143	0.454
	Indeno(1,2,3-cd)pyrene	7.8	0.9	0.261	0.929	0.327	0.485	1.50	0.484	0.580	BRL<0.134	0.256	1.200
	1-Methylnaphthalene	NE	NE	BRL<0.142	BRL<0.161	BRL<0.142	BRL<0.141	BRL<0.140	BRL<0.134	BRL<0.137	BRL<0.134	BRL<0.143	BRL<0.141
	2-Methylnaphthalene	10,000	123	BRL<0.142	BRL<0.161	BRL<0.142	BRL<0.141	BRL<0.140	0.172	BRL<0.137	BRL<0.134	BRL<0.143	0.165
	Naphthalene	10,000	54	BRL<0.142	BRL<0.161	BRL<0.142	BRL<0.141	BRL<0.140	0.557	BRL<0.137	BRL<0.134	BRL<0.143	0.423
Phenanthrene	10,000	40	0.602	0.730	0.260	0.638	2.72	2.31	1.81	BRL<0.134	0.684	4.04	
Pyrene	10,000	13	0.967	1.58	0.523	1.61	5.48	2.20	2.54	BRL<0.134	0.972	5.24	
Total Metals	Arsenic	7.0	7.0	BRL<2.10	5.27	1.70	BRL<1.56	2.14	2.93	BRL<1.55	1.68	2.74	2.49
	Barium	10,000	5,500	17.8	27.2	14.4	23.6	24.2	22.6	21.6	14.0	39.0	61.2
	Cadmium	1,000	39	BRL<0.263	BRL<0.277	BRL<0.256	BRL<0.261	BRL<0.255	BRL<0.253	BRL<0.258	BRL<0.252	BRL<0.255	BRL<0.255
	Chromium (Cr <sup>3+</sup> )	10,000	1,400	2.54	11.2	2.89	4.66	5.45	4.34	2.71	1.97	10.3	6.55
	Lead	500	150	26.1	74.3	17.9	101	99.6	85.0	52.4	BRL<3.12	178	152
	Mercury	610	23	BRL<0.191	0.600	BRL<0.168	BRL<0.191	BRL<0.168	1.07	BRL<0.165	BRL<0.165	0.251	BRL<0.178
	Selenium	10,000	390	BRL<1.58	BRL<1.66	BRL<1.54	BRL<1.56	BRL<1.53	BRL<1.52	BRL<1.55	BRL<1.51	BRL<0.178	BRL<1.53
	Silver	10,000	200	BRL<1.05	BRL<1.11	BRL<1.03	BRL<1.04	BRL<1.02	BRL<1.01	BRL<1.03	BRL<1.01	BRL<1.02	BRL<1.02
Other	Percent Solids	—	—	91.9%	89.4%	95.5%	92.2%	93.8%	94.8%	94.9%	97.2%	93.7%	93.9%

Notes BRL = Below laboratory Reporting Limit  
 NE = Not established (for that parameter)  
 M1= Method 1  
 Blue highlighted text = Exceeds M1 Industrial/Commercial Criteria  
 Yellow highlight = Exceeds M1 Residential Criteria



**TABLE 3**

**HISTORIC SOIL ANALYTICAL DATA (MG/KG)**

Test	Parameter	M1 Direct Exposure Criteria		TP-8		TP-9	TP-10	
		Industrial	Residential	0-2'	4-6'	0-2'	0-2'	4-6'
PAHs	Acenaphthene	10,000	43	0.233	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.140</i>	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.144</i>
	Acenaphthylene	10,000	23	0.463	0.255	<i>BRL&lt;0.140</i>	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.144</i>
	Anthracene	10,000	35	1.04	0.346	0.147	<i>BRL&lt;0.146</i>	0.196
	Benzo(a)anthracene	7.8	0.9	2.08	1.43	0.431	0.509	0.847
	Benzo(a)pyrene	0.8	0.4	2.37	1.75	0.427	0.506	0.861
	Benzo(b)fluoranthene	7.8	0.9	2.52	1.86	0.479	0.621	1.08
	Benzo(g,h,i)perylene	10,000	0.8	1.17	0.914	0.222	0.232	0.412
	Benzo(k)fluoranthene	78	0.9	1.24	0.950	0.242	0.309	0.587
	Chrysene	780	0.4	2.19	1.50	0.454	0.530	0.967
	Dibenzo(a,h)anthracene	0.8	0.4	0.249	0.210	<i>BRL&lt;0.140</i>	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.144</i>
	Fluoranthene	10,000	20	4.66	2.67	0.910	0.938	1.66
	Fluorene	10,000	28	0.395	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.140</i>	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.144</i>
	Indeno(1,2,3-cd)pyrene	7.8	0.9	1.32	1.01	0.218	0.272	0.444
	1-Methylnaphthalene	NE	NE	<i>BRL&lt;0.148</i>	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.140</i>	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.144</i>
	2-Methylnaphthalene	10,000	123	0.153	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.140</i>	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.144</i>
	Naphthalene	10,000	54	0.449	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.140</i>	<i>BRL&lt;0.146</i>	<i>BRL&lt;0.144</i>
	Phenanthrene	10,000	40	4.22	1.46	0.647	0.537	1.00
Pyrene	10,000	13	4.81	2.89	0.975	0.945	1.76	
Total Metals	Arsenic	7.0	7.0	2.10	2.97	<i>BRL&lt;1.52</i>	3.90	<i>BRL&lt;2.44</i>
	Barium	10,000	5,500	22.0	34.5	23.8	42.2	30.9
	Cadmium	1,000	39	<i>BRL&lt;0.266</i>	<i>BRL&lt;0.267</i>	<i>BRL&lt;0.254</i>	<i>BRL&lt;0.264</i>	<i>BRL&lt;0.266</i>
	Chromium (Cr <sup>3+</sup> )	10,000	1,400	5.41	9.60	3.07	8.63	9.67
	Lead	500	150	47.3	92.3	127.0	123	134
	Mercury	610	23	<i>BRL&lt;0.187</i>	0.240	0.227	<i>BRL&lt;0.182</i>	0.186
	Selenium	10,000	390	<i>BRL&lt;1.60</i>	<i>BRL&lt;1.60</i>	<i>BRL&lt;1.52</i>	<i>BRL&lt;1.58</i>	<i>BRL&lt;1.59</i>
	Silver	10,000	200	<i>BRL&lt;1.06</i>	<i>BRL&lt;1.07</i>	<i>BRL&lt;1.01</i>	<i>BRL&lt;1.06</i>	<i>BRL&lt;1.06</i>
Other	Percent Solids	—	—	93.5%	93.2%	95.1%	91.5%	91.1%

Notes *BRL = Below laboratory Reporting Limit*  
 NE = Not established (for that parameter)  
 M1= Method 1  
 Blue highlighted text = Exceeds M1 Industrial/Commercial Criteria  
 Yellow highlight = Exceeds M1 Residential Criteria

## APPENDIX A

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### BORING LOGS

### HOLLOW-STEM AUGER BORING LOG/WELL CONSTRUCTION DIAGRAM

Location: 777 Cranston Street, Cranston RI						Boring Designation: <b>CMG-1</b>		
Drilling Company: Technical Drilling Services						Date: 11/15-11/17/21		
Field supervisor: SV/MC						Project ID: 2021-060		
Sample Interval (feet)	Blow Counts per Six Inches				Sample Recovery (inches)	PID Reading (ppmv)	Soil Characterization	Well Diagram
	0-6"	6-12"	12-18"	18-24"				
0-2	3	4	5	4	14	0.0	Well graded sand with gravel, fine to coarse grained sand, dark brown, moist, fill (brick)	
2-4	5	3	3	3	13	0.0	Well graded sand with gravel, fine to coarse grained sand, brown, fill (brick), dry	
5-7	5	2	3	2	8	0.0	Well graded sand with gravel, fine to coarse grained sand, rock fragments, brown, fill (asphalt), dry	
10-12	7	2	3	4	12	0.0	Well graded sand with gravel, fine to coarse grained sand, brown, fill (asphalt, brick), dry	
15-17	4	5	4	4	12	0.0	Poorly graded sand, fine to medium sand, light brown, dry	
20-22	2	2	2	3	12	0.0	Poorly graded sand, fine to medium sand, light brown, dry	
25-27	5	5	6	9	13	0.0	Poorly graded sand, fine to medium sand, light brown, dry	
30-32	5	8	10	11	15	0.0	Well graded sand, fine to coarse sand, light brown, dry	
35-37	4	5	5	7	15	0.0	Well graded sand, fine to coarse sand, light brown, wet	

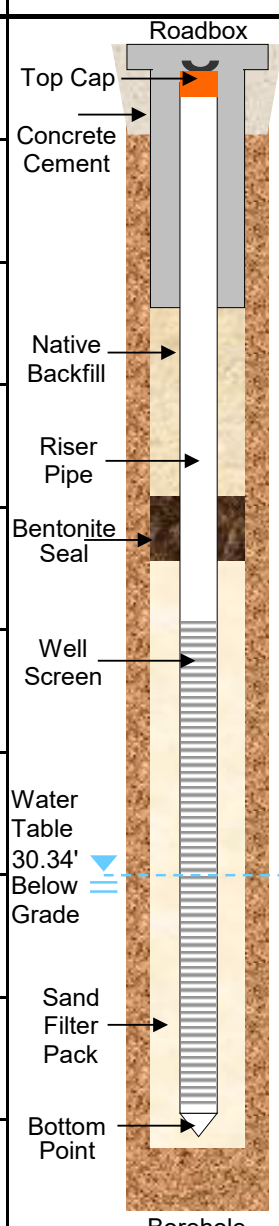
<p><b>Soil Classification</b></p> <ul style="list-style-type: none"> <li>Particles &lt;0.075 mm = silt (rounded) or clay (laminae)</li> <li>0.075 to 0.25 mm = fine-grained sand</li> <li>0.25 to 0.60 mm = medium-grained sand</li> <li>0.60 to 2.0 mm = coarse-grained sand</li> <li>2.0 to 76 mm = gravel</li> <li>Particles &gt;76 mm = cobbles</li> <li>"and" = 30 to 50% by volume in sample</li> <li>"some" = 20 to 35% by volume in sample</li> <li>"little" = 10 to 20% by volume in sample</li> <li>"trace" = 0 to 10% by volume in sample</li> </ul>	<p><b>Well Construction Details</b></p> <ul style="list-style-type: none"> <li>Measured depth to water: 31.31 feet below grade</li> <li>Bottom of boring: 40 feet below grade</li> <li>Screened interval: 30 to 40 feet below grade</li> <li>Sand filter pack: 29 to 40 feet below grade</li> <li>Bentonite seal: 28 to 29 feet below grade</li> <li>Well materials: 2-inch schedule 40 PVC</li> </ul>
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**HOLLOW-STEM AUGER BORING LOG/WELL CONSTRUCTION DIAGRAM**

Location: 777 Cranston Street, Cranston RI						Boring Designation: <b>CMG-2</b>		
Drilling Company: Technical Drilling Services						Date: 11/15-11/17/21		
Field supervisor: SV/MC						Project ID: 2021-060		
Sample Interval (feet)	Blow Counts per Six Inches				Sample Recovery (inches)	PID Reading (ppmv)	Soil Characterization	Well Diagram
	0-6"	6-12"	12-18"	18-24"				
0-2	5	7	8	15	18	0.0	Well graded sand with gravel, fine to coarse grained sand, dark brown, moist, fill (brick)	
2-4	12	13	12	14	22	0.0	Well graded sand with gravel, fine to coarse grained sand, brown, fill (wood), dry	
5-7	3	3	6	11	5	0.0	Well graded sand with gravel, fine to coarse grained sand, brown, fill (brick), dry	
10-12	50	NA					No Recovery	
15-17	5	5	7	11	13	0.0	Poorly graded sand, fine to medium sand, light brown, dry	
20-22	5	7	9	14	16	0.0	Well graded sand, fine to coarse sand, light brown, dry	
25-27	4	10	14	15	20	0.0	Well graded sand, fine to coarse sand, trace gravel, light brown, dry	
30-32	9	22	25	31	18	0.0	Well graded sand with gravel, fine to coarse sand, light brown, dense, dry	
35-37	13	16	17	20	15	0.0	Well graded sand with gravel, fine to coarse sand, light brown, dense, wet	

<p><b>Soil Classification</b></p> <p>Particles &lt;0.075 mm = silt (rounded) or clay (laminae)          0.075 to 0.25 mm = fine-grained sand          0.25 to 0.60 mm = medium-grained sand          0.60 to 2.0 mm = coarse-grained sand          2.0 to 76 mm = gravel          Particles &gt;76 mm = cobbles          "and" = 30 to 50% by volume in sample          "some" = 20 to 35% by volume in sample          "little" = 10 to 20% by volume in sample          "trace" = 0 to 10% by volume in sample</p>	<p><b>Well Construction Details</b></p> <p>Measured depth to water: 31.31 feet below grade          Bottom of boring: 40 feet below grade          Screened interval: 30 to 40 feet below grade          Sand filter pack: 29 to 40 feet below grade          Bentonite seal: 28 to 29 feet below grade          Well materials: 2-inch schedule 40 PVC</p>
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### HOLLOW-STEM AUGER BORING LOG/WELL CONSTRUCTION DIAGRAM

Location: 777 Cranston Street, Cranston RI						Boring Designation: <b>CMG-3</b>		
Drilling Company: Technical Drilling Services						Date: 11/15-11/17/21		
Field supervisor: SV/MC						Project ID: 2021-060		
Sample Interval (feet)	Blow Counts per Six Inches				Sample Recovery (inches)	PID Reading (ppmv)	Soil Characterization	Well Diagram
	0-6"	6-12"	12-18"	18-24"				
0-2	6	8	13	14	16	0.0	Well graded sand with gravel, fine to coarse grained sand, dark brown, moist, fill (brick)	
2-4	13	18	20	17	19	0.0	Well graded sand with gravel, fine to coarse grained sand, brown, fill (asphalt, brick), dry	
5-7	13	15	9	7	18	0.0	Well graded sand, little gravel, fine to coarse grained sand, brown	
10-12	10	6	6	13	24	0.0	Poorly graded sand, trace gravel, fine to medium grained sand, brown	
15-17	50	NA			2	0.0	Well graded sand, little gravel, fine to coarse grained sand, brown	
20-22	6	5	5	7	18	0.0	Poorly graded sand, trace gravel, fine to medium grained sand, brown	
25-27	NR				24	0.0	Poorly graded sand, trace gravel, fine to medium grained sand, brown	
30-32	NR				24	0.0	Poorly graded sand, trace gravel, fine to medium grained sand, brown, wet	

<p><b>Soil Classification</b></p> <p>Particles &lt;0.075 mm = silt (rounded) or clay (laminae)</p> <p>0.075 to 0.25 mm = fine-grained sand</p> <p>0.25 to 0.60 mm = medium-grained sand</p> <p>0.60 to 2.0 mm = coarse-grained sand</p> <p>2.0 to 76 mm = gravel</p> <p>Particles &gt;76 mm = cobbles</p> <p>"and" = 30 to 50% by volume in sample</p> <p>"some" = 20 to 35% by volume in sample</p> <p>"little" = 10 to 20% by volume in sample</p> <p>"trace" = 0 to 10% by volume in sample</p>	<p><b>Well Construction Details</b></p> <p>Measured depth to water: 30.34 feet below grade</p> <p>Bottom of boring: 38 feet below grade</p> <p>Screened interval: 28 to 38 feet below grade</p> <p>Sand filter pack: 27 to 38 feet below grade</p> <p>Bentonite seal: 26 to 27 feet below grade</p> <p>Well materials: 2-inch schedule 40 PVC</p>
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### HOLLOW-STEM AUGER BORING LOG/WELL CONSTRUCTION DIAGRAM

Location: 777 Cranston Street, Cranston RI						Boring Designation: <b>CMG-4</b>		
Drilling Company: Technical Drilling Services						Date: 11/15-11/17/21		
Field supervisor: SV/MC						Project ID: 2021-060		
Sample Interval (feet)	Blow Counts per Six Inches				Sample Recovery (inches)	PID Reading (ppmv)	Soil Characterization	Well Diagram
	0-6"	6-12"	12-18"	18-24"				
0-2	3	7	11	8	20	0.6	Poorly graded sand with some silt, fine sand, trace gravel, brown, fill (asphalt, brick)	
2-4	6	7	10	10	18	0.8	Poorly graded sand with some silt, fine sand, trace gravel, brown, fill (brick)	
5-7	7	10	17	20	18	0.5	Well graded sand, little gravel, fine to coarse grained sand, brown	
10-12	4	28	34	32	18	0.9	Poorly graded sand, trace gravel, fine to medium grained sand, brown, fill (brick)	
15-17	6	6	8	10	12	0.0	Well graded sand, little gravel, fine to coarse grained sand, brown	
20-22	1	5	6	7	3	0.0	Well graded sand, little gravel, fine to coarse grained sand, brown	
25-27	10	11	12	12	NR	0.0	Well graded sand, little gravel, fine to coarse grained sand, brown	
30-32	4	4	8	10	18	0.0	Poorly graded sand, little gravel, fine to medium grained sand, brown	

<p><b>Soil Classification</b></p> <p>Particles &lt;0.075 mm = silt (rounded) or clay (laminae)          0.075 to 0.25 mm = fine-grained sand          0.25 to 0.60 mm = medium-grained sand          0.60 to 2.0 mm = coarse-grained sand          2.0 to 76 mm = gravel          Particles &gt;76 mm = cobbles          "and" = 30 to 50% by volume in sample          "some" = 20 to 35% by volume in sample          "little" = 10 to 20% by volume in sample          "trace" = 0 to 10% by volume in sample</p>	<p><b>Well Construction Details</b></p> <p>Measured depth to water: 28.75 feet below grade          Bottom of boring: 37 feet below grade          Screened interval: 27 to 37 feet below grade          Sand filter pack: 26 to 37 feet below grade          Bentonite seal: 25 to 26 feet below grade          Well materials: 2-inch schedule 40 PVC</p>
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### HOLLOW-STEM AUGER BORING LOG/WELL CONSTRUCTION DIAGRAM

Location: 777 Cranston Street, Cranston RI						Boring Designation: <b>CMG-5</b>		
Drilling Company: Technical Drilling Services						Date: 11/15-11/17/21		
Field supervisor: SV/MC						Project ID: 2021-060		
Sample Interval (feet)	Blow Counts per Six Inches				Sample Recovery (inches)	PID Reading (ppmv)	Soil Characterization	Well Diagram
	0-6"	6-12"	12-18"	18-24"				
0-2	5	7	12	14	20	0.0	Well graded sand, trace gravel, fine to coarse grained sand, dark brown, moist, fill (asphalt)	
2-4	6	8	11	20	18	0.0	Well graded sand with gravel, fine to coarse grained sand, brown, fill (asphalt, brick), dry	
5-7	6	6	7	9	12	0.0	Well graded sand, little gravel, fine to coarse grained sand, brown	
10-12	5	8	13	7	12	0.0	Well graded sand and gravel, fine to coarse grained sand, brown	
15-17	6	12	16	20	18	0.0	Well graded sand, little gravel, fine to coarse grained sand, brown	
20-22	6	15	25	22	12	0.0	Well graded sand, little gravel, fine to coarse grained sand, brown	
25-27	6	7	11	12	18	0.0	Well graded sand, trace gravel, fine to coarse grained sand, brown	

<p><b>Soil Classification</b></p> <p>Particles &lt;0.075 mm = silt (rounded) or clay (laminae)</p> <p>0.075 to 0.25 mm = fine-grained sand</p> <p>0.25 to 0.60 mm = medium-grained sand</p> <p>0.60 to 2.0 mm = coarse-grained sand</p> <p>2.0 to 76 mm = gravel</p> <p>Particles &gt;76 mm = cobbles</p> <p>"and" = 30 to 50% by volume in sample</p> <p>"some" = 20 to 35% by volume in sample</p> <p>"little" = 10 to 20% by volume in sample</p> <p>"trace" = 0 to 10% by volume in sample</p>	<p><b>Well Construction Details</b></p> <p>Measured depth to water: 25.1 feet below grade</p> <p>Bottom of boring: 31 feet below grade</p> <p>Screened interval: 21 to 31 feet below grade</p> <p>Sand filter pack: 20 to 31 feet below grade</p> <p>Bentonite seal: 19 to 20 feet below grade</p> <p>Well materials: 2-inch schedule 40 PVC</p>
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### HOLLOW-STEM AUGER BORING LOG/WELL CONSTRUCTION DIAGRAM

Location: 777 Cranston Street, Cranston RI						Boring Designation: <b>CMG-6</b>		
Drilling Company: Technical Drilling Services						Date: 11/15-11/17/21		
Field supervisor: SV/MC						Project ID: 2021-060		
Sample Interval (feet)	Blow Counts per Six Inches				Sample Recovery (inches)	PID Reading (ppmv)	Soil Characterization	Well Diagram
	0-6"	6-12"	12-18"	18-24"				
0-2	3	5	10	15	16	0.0	Well graded sand, trace gravel, fine to coarse grained sand, dark brown, moist, fill (asphalt)	
2-4	10	8	10	8	10	0.0	Well graded sand with gravel, fine to coarse grained sand, brown, dry	
5-7	1	4	12	15	12	0.0	Well graded sand, little gravel, fine to coarse grained sand, brown, fill (brick)	
10-12	5	4	13	17	14	0.0	Well graded sand, trace gravel, fine to coarse grained sand, brown, dry	
15-17	12	22	26	22	20	0.0	Well graded sand, trace gravel, fine to coarse grained sand, brown, dry	
20-22	15	21	15	18	12	0.0	Well graded sand, trace gravel, fine to coarse grained sand, brown, dry	
25-27	3	4	7	8	20	0.0	Poorly graded sand, trace gravel, fine to medium grained sand, brown, wet	

<p><b>Soil Classification</b></p> <p>Particles &lt;0.075 mm = silt (rounded) or clay (laminar)          0.075 to 0.25 mm = fine-grained sand          0.25 to 0.60 mm = medium-grained sand          0.60 to 2.0 mm = coarse-grained sand          2.0 to 76 mm = gravel          Particles &gt;76 mm = cobbles          "and" = 30 to 50% by volume in sample          "some" = 20 to 35% by volume in sample          "little" = 10 to 20% by volume in sample          "trace" = 0 to 10% by volume in sample</p>	<p><b>Well Construction Details</b></p> <p>Measured depth to water: 26.43 feet below grade          Bottom of boring: 34 feet below grade          Screened interval: 24 to 34 feet below grade          Sand filter pack: 23 to 34 feet below grade          Bentonite seal: 22 to 23 feet below grade          Well materials: 2-inch schedule 40 PVC</p>
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### HOLLOW-STEM AUGER BORING LOG/WELL CONSTRUCTION DIAGRAM

Location: 777 Cranston Street, Cranston RI						Boring Designation: <b>CMG-7</b>		
Drilling Company: Technical Drilling Services						Date: 11/15-11/17/21		
Field supervisor: SV/MC						Project ID: 2021-060		
Sample Interval (feet)	Blow Counts per Six Inches				Sample Recovery (inches)	PID Reading (ppmv)	Soil Characterization	Well Diagram
	0-6"	6-12"	12-18"	18-24"				
0-2	1	9	10	13	18	0.8	Well graded sand, trace gravel, fine to coarse grained sand, dark brown, moist, fill (cloth)	
2-4	11	17	50	NA	6	0.0	Well graded sand, trace gravel, fine to coarse grained sand, dark brown, moist, fill (cloth)	
5-7	10	16	15	15	18	1.1	Well graded sand, little gravel, fine to coarse grained sand, brown, fill (wood)	
10-12	8	4	3	3	12	3.6	Well graded sand, trace gravel, fine to coarse grained sand, brown, dry	
15-17	3	8	7	7	12	0.0	Well graded sand, some gravel, fine to coarse grained sand, brown, dry	
20-22	3	4	3	4	12	0.0	Poorly graded sand, some gravel, fine to medium grained sand, brown, dry	
25-27	2	6	8	11	24	0.0	Poorly graded sand, some gravel, fine to medium grained sand, brown, wet	

<p><b>Soil Classification</b></p> <p>Particles &lt;0.075 mm = silt (rounded) or clay (laminae)</p> <p>0.075 to 0.25 mm = fine-grained sand</p> <p>0.25 to 0.60 mm = medium-grained sand</p> <p>0.60 to 2.0 mm = coarse-grained sand</p> <p>2.0 to 76 mm = gravel</p> <p>Particles &gt;76 mm = cobbles</p> <p>"and" = 30 to 50% by volume in sample</p> <p>"some" = 20 to 35% by volume in sample</p> <p>"little" = 10 to 20% by volume in sample</p> <p>"trace" = 0 to 10% by volume in sample</p>	<p><b>Well Construction Details</b></p> <p>Measured depth to water: 23.29 feet below grade</p> <p>Bottom of boring: 32 feet below grade</p> <p>Screened interval: 22 to 32 feet below grade</p> <p>Sand filter pack: 21 to 32 feet below grade</p> <p>Bentonite seal: 20 to 21 feet below grade</p> <p>Well materials: 2-inch schedule 40 PVC</p>
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### HOLLOW-STEM AUGER BORING LOG/WELL CONSTRUCTION DIAGRAM

Location: 777 Cranston Street, Cranston RI						Boring Designation: <b>CMG-8</b>		
Drilling Company: Technical Drilling Services						Date: 11/15-11/17/21		
Field supervisor: SV/MC						Project ID: 2021-060		
Sample Interval (feet)	Blow Counts per Six Inches				Sample Recovery (inches)	PID Reading (ppmv)	Soil Characterization	Well Diagram
	0-6"	6-12"	12-18"	18-24"				
0-2	3	10	11	10	18	0.0	Well graded sand, trace gravel, fine to coarse grained sand, dark brown, moist	
2-4	10	10	17	16	14	0.0	Well graded sand, trace gravel, fine to coarse grained sand, dark brown, moist, fill (asphalt)	
5-7	3	5	9	13	14	0.0	Well graded sand, trace gravel, fine to coarse grained sand, brown, dry	
10-12	1	1	1	3	12	0.0	Well graded sand, trace gravel, fine to coarse grained sand, brown, dry	
15-17	4	4	5	5	12	0.0	Well graded sand, trace gravel, fine to coarse grained sand, brown, dry	
20-22	7	9	8	14	18	0.0	Well graded sand, trace gravel, fine to coarse grained sand, brown, wet	

<p><b>Soil Classification</b></p> <p>Particles &lt;0.075 mm = silt (rounded) or clay (laminae)</p> <p>0.075 to 0.25 mm = fine-grained sand</p> <p>0.25 to 0.60 mm = medium-grained sand</p> <p>0.60 to 2.0 mm = coarse-grained sand</p> <p>2.0 to 76 mm = gravel</p> <p>Particles &gt;76 mm = cobbles</p> <p>"and" = 30 to 50% by volume in sample</p> <p>"some" = 20 to 35% by volume in sample</p> <p>"little" = 10 to 20% by volume in sample</p> <p>"trace" = 0 to 10% by volume in sample</p>	<p><b>Well Construction Details</b></p> <p>Measured depth to water: 17.1 feet below grade</p> <p>Bottom of boring: 25 feet below grade</p> <p>Screened interval: 15 to 25 feet below grade</p> <p>Sand filter pack: 14 to 25 feet below grade</p> <p>Bentonite seal: 13 to 14 feet below grade</p> <p>Well materials: 2-inch schedule 40 PVC</p>
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## APPENDIX B

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LABORATORY CERTIFICATES OF ANALYSIS & CHAIN-OF-CUSTODY DOCUMENTATION



Tuesday, October 12, 2021

Attn: Mr. Steve Van Wormer  
CMG Environmental, Inc.  
67 Hall Rd  
Sturbridge, MA 01566

Project ID: 2021-060  
SDG ID: GCJ50206  
Sample ID#s: CJ50206 - CJ50208

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller

Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

## Sample Id Cross Reference

October 12, 2021

SDG I.D.: GCJ50206

Project ID: 2021-060

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Client Id	Lab Id	Matrix
B-1-2	CJ50206	SOIL
B-3-2	CJ50207	SOIL
B-5-2	CJ50208	SOIL



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

October 12, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

## Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: Standard  
 P.O.#: CRANSTON

## Custody Information

Collected by:  
 Received by: CP  
 Analyzed by: see "By" below

## Date

10/05/21  
 10/06/21

## Time

11:10  
 13:00

## Laboratory Data

SDG ID: GCJ50206  
 Phoenix ID: CJ50206

Project ID: 2021-060  
 Client ID: B-1-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	10/07/21	CPP	SW6010D
Arsenic	4.21	0.71	mg/Kg	1	10/07/21	CPP	SW6010D
Barium	34.0	0.35	mg/Kg	1	10/07/21	CPP	SW6010D
Cadmium	1.00	0.35	mg/Kg	1	10/07/21	CPP	SW6010D
Chromium	15.8	0.35	mg/Kg	1	10/07/21	CPP	SW6010D
Mercury	0.31	0.03	mg/Kg	2	10/09/21	AP	SW7471B
Lead	120	0.35	mg/Kg	1	10/07/21	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	10/07/21	CPP	SW6010D
Percent Solid	93		%		10/06/21	JS	SW846-%Solid
Field Extraction	Completed				10/05/21		SW5035A
Mercury Digestion	Completed				10/09/21	AB/AB	SW7471B
Extraction of ETPH	Completed				10/06/21	I/Y	SW3546
Soil Extraction for SVOA	Completed				10/07/21	R/Y	SW3546
Total Metals Digest	Completed				10/06/21	M/TH/BF	SW3050B

## TPH by GC (Extractable (C9-C36))

Fuel Oil #2 / Diesel Fuel	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Fuel Oil #4	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Fuel Oil #6	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Kerosene	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Motor Oil	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Total TPH	290	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Unidentified	**	260	mg/kg	5	10/07/21	JRB	SW8015D DRO

## QA/QC Surrogates

% Terphenyl (surr)	149		%	5	10/07/21	JRB	50 - 150 %
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b>Volatiles</b>							
1,1,1,2-Tetrachloroethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.8	ug/Kg	1	10/07/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,1-Dichloroethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,1-Dichloroethene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,1-Dichloropropene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.31	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dichloroethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dichloropropane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,3-Dichloropropane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
2,2-Dichloropropane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
2-Chlorotoluene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
2-Hexanone	ND	15	ug/Kg	1	10/07/21	JLI	SW8260C
2-Isopropyltoluene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
4-Chlorotoluene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	15	ug/Kg	1	10/07/21	JLI	SW8260C
Acetone	ND	150	ug/Kg	1	10/07/21	JLI	SW8260C
Acrylonitrile	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Benzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Bromobenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Bromochloromethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Bromodichloromethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Bromoform	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Bromomethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Carbon Disulfide	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Carbon tetrachloride	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Chlorobenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Chloroethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Chloroform	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Chloromethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Dibromochloromethane	ND	1.8	ug/Kg	1	10/07/21	JLI	SW8260C
Dibromomethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Dichlorodifluoromethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Ethylbenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Hexachlorobutadiene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Isopropylbenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	18	ug/Kg	1	10/07/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	6.1	ug/Kg	1	10/07/21	JLI	SW8260C
Methylene chloride	ND	6.1	ug/Kg	1	10/07/21	JLI	SW8260C
Naphthalene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
n-Butylbenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
n-Propylbenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
o-Xylene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
p-Isopropyltoluene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
sec-Butylbenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Styrene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
tert-Butylbenzene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Tetrachloroethene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	6.1	ug/Kg	1	10/07/21	JLI	SW8260C
Toluene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Total Xylenes	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	6.1	ug/Kg	1	10/07/21	JLI	SW8260C
Trichloroethene	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Trichlorofluoromethane	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.1	ug/Kg	1	10/07/21	JLI	SW8260C
Vinyl chloride	ND	3.1	ug/Kg	1	10/07/21	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	101		%	1	10/07/21	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	10/07/21	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	10/07/21	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/07/21	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dinitrophenol	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2-Methylnaphthalene	370	250	ug/Kg	1	10/08/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2-Nitroaniline	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	10/08/21	WB	SW8270D



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
3-Nitroaniline	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
4-Nitroaniline	ND	560	ug/Kg	1	10/08/21	WB	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Acenaphthene	840	250	ug/Kg	1	10/08/21	WB	SW8270D
Acenaphthylene	340	250	ug/Kg	1	10/08/21	WB	SW8270D
Acetophenone	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Aniline	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
Anthracene	2700	250	ug/Kg	1	10/08/21	WB	SW8270D
Benz(a)anthracene	4900	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzidine	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(a)pyrene	4200	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(b)fluoranthene	3500	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(ghi)perylene	2200	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(k)fluoranthene	3300	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzoic acid	ND	700	ug/Kg	1	10/08/21	WB	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
Carbazole	430	350	ug/Kg	1	10/08/21	WB	SW8270D
Chrysene	4400	250	ug/Kg	1	10/08/21	WB	SW8270D
Dibenz(a,h)anthracene	690	250	ug/Kg	1	10/08/21	WB	SW8270D
Dibenzofuran	700	250	ug/Kg	1	10/08/21	WB	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Di-n-butylphthalate	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Fluoranthene	18000	2500	ug/Kg	10	10/08/21	WB	SW8270D
Fluorene	1200	250	ug/Kg	1	10/08/21	WB	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	2800	250	ug/Kg	1	10/08/21	WB	SW8270D
Isophorone	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Naphthalene	260	250	ug/Kg	1	10/08/21	WB	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
N-Nitrosodimethylamine	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
Pentachloronitrobenzene	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	10/08/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	6900	250	ug/Kg	1	10/08/21	WB	SW8270D
Phenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Pyrene	17000	2500	ug/Kg	10	10/08/21	WB	SW8270D
Pyridine	ND	350	ug/Kg	1	10/08/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	103		%	1	10/08/21	WB	30 - 130 %
% 2-Fluorobiphenyl	73		%	1	10/08/21	WB	30 - 130 %
% 2-Fluorophenol	72		%	1	10/08/21	WB	30 - 130 %
% Nitrobenzene-d5	86		%	1	10/08/21	WB	30 - 130 %
% Phenol-d5	85		%	1	10/08/21	WB	30 - 130 %
% Terphenyl-d14	106		%	1	10/08/21	WB	30 - 130 %
% 2,4,6-Tribromophenol (10x)	Diluted Out		%	10	10/08/21	WB	30 - 130 %
% 2-Fluorobiphenyl (10x)	Diluted Out		%	10	10/08/21	WB	30 - 130 %
% 2-Fluorophenol (10x)	Diluted Out		%	10	10/08/21	WB	30 - 130 %
% Nitrobenzene-d5 (10x)	Diluted Out		%	10	10/08/21	WB	30 - 130 %
% Phenol-d5 (10x)	Diluted Out		%	10	10/08/21	WB	30 - 130 %
% Terphenyl-d14 (10x)	Diluted Out		%	10	10/08/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

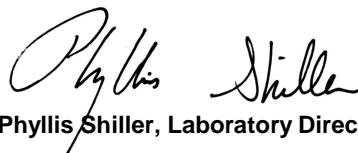
Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

TPH Comment:

\*\*Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**October 12, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

October 12, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

## Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: Standard  
 P.O.#: CRANSTON

## Custody Information

Collected by:  
 Received by: CP  
 Analyzed by: see "By" below

## Date

10/05/21  
 10/06/21

## Time

11:30  
 13:00

## Laboratory Data

SDG ID: GCJ50206  
 Phoenix ID: CJ50207

Project ID: 2021-060  
 Client ID: B-3-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	10/07/21	CPP	SW6010D
Arsenic	13.2	0.76	mg/Kg	1	10/07/21	CPP	SW6010D
Barium	22.2	0.38	mg/Kg	1	10/07/21	CPP	SW6010D
Cadmium	1.39	0.38	mg/Kg	1	10/07/21	CPP	SW6010D
Chromium	28.3	0.38	mg/Kg	1	10/07/21	CPP	SW6010D
Mercury	0.10	0.03	mg/Kg	2	10/11/21	AP	SW7471B
Lead	51.2	0.38	mg/Kg	1	10/07/21	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	10/07/21	CPP	SW6010D
Percent Solid	89		%		10/06/21	JS	SW846-%Solid
Field Extraction	Completed				10/05/21		SW5035A
Mercury Digestion	Completed				10/09/21	AB/AB	SW7471B
Extraction of ETPH	Completed				10/06/21	I/Y	SW3546
Soil Extraction for SVOA	Completed				10/07/21	R/Y	SW3546
Total Metals Digest	Completed				10/06/21	M/TH/BF	SW3050B

## TPH by GC (Extractable (C9-C36))

Fuel Oil #2 / Diesel Fuel	ND	280	mg/kg	5	10/07/21	JRB	SW8015D DRO
Fuel Oil #4	ND	280	mg/kg	5	10/07/21	JRB	SW8015D DRO
Fuel Oil #6	ND	280	mg/kg	5	10/07/21	JRB	SW8015D DRO
Kerosene	ND	280	mg/kg	5	10/07/21	JRB	SW8015D DRO
Motor Oil	ND	280	mg/kg	5	10/07/21	JRB	SW8015D DRO
Total TPH	ND	280	mg/kg	5	10/07/21	JRB	SW8015D DRO
Unidentified	ND	280	mg/kg	5	10/07/21	JRB	SW8015D DRO

## QA/QC Surrogates

% Terphenyl (surr)	95		%	5	10/07/21	JRB	50 - 150 %
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b>Volatiles</b>							
1,1,1,2-Tetrachloroethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,1-Dichloroethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,1-Dichloroethene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,1-Dichloropropene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.29	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dichloroethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dichloropropane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,3-Dichloropropane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
2,2-Dichloropropane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
2-Chlorotoluene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
2-Hexanone	ND	14	ug/Kg	1	10/07/21	JLI	SW8260C
2-Isopropyltoluene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
4-Chlorotoluene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	14	ug/Kg	1	10/07/21	JLI	SW8260C
Acetone	ND	140	ug/Kg	1	10/07/21	JLI	SW8260C
Acrylonitrile	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Benzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Bromobenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Bromochloromethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Bromodichloromethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Bromoform	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Bromomethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Carbon Disulfide	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Carbon tetrachloride	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Chlorobenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Chloroethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Chloroform	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Chloromethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Dibromochloromethane	ND	1.7	ug/Kg	1	10/07/21	JLI	SW8260C
Dibromomethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Dichlorodifluoromethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Ethylbenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Hexachlorobutadiene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Isopropylbenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	17	ug/Kg	1	10/07/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	5.7	ug/Kg	1	10/07/21	JLI	SW8260C
Methylene chloride	ND	5.7	ug/Kg	1	10/07/21	JLI	SW8260C
Naphthalene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
n-Butylbenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
n-Propylbenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
o-Xylene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
p-Isopropyltoluene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
sec-Butylbenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Styrene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
tert-Butylbenzene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Tetrachloroethene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	5.7	ug/Kg	1	10/07/21	JLI	SW8260C
Toluene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Total Xylenes	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	5.7	ug/Kg	1	10/07/21	JLI	SW8260C
Trichloroethene	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Trichlorofluoromethane	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.7	ug/Kg	1	10/07/21	JLI	SW8260C
Vinyl chloride	ND	2.9	ug/Kg	1	10/07/21	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	100		%	1	10/07/21	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	10/07/21	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	10/07/21	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/07/21	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dinitrophenol	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dinitrotoluene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2,6-Dinitrotoluene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
2-Nitroaniline	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	10/08/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
3-Nitroaniline	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
4-Chloroaniline	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
4-Nitroaniline	ND	580	ug/Kg	1	10/08/21	WB	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Acenaphthene	260	250	ug/Kg	1	10/08/21	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Acetophenone	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Aniline	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
Anthracene	540	250	ug/Kg	1	10/08/21	WB	SW8270D
Benz(a)anthracene	1900	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzidine	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(a)pyrene	1800	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(b)fluoranthene	1700	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(ghi)perylene	1200	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(k)fluoranthene	1700	250	ug/Kg	1	10/08/21	WB	SW8270D
Benzoic acid	ND	730	ug/Kg	1	10/08/21	WB	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
Carbazole	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
Chrysene	1900	250	ug/Kg	1	10/08/21	WB	SW8270D
Dibenz(a,h)anthracene	340	250	ug/Kg	1	10/08/21	WB	SW8270D
Dibenzofuran	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Di-n-butylphthalate	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Fluoranthene	4000	250	ug/Kg	1	10/08/21	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Hexachlorobutadiene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	1500	250	ug/Kg	1	10/08/21	WB	SW8270D
Isophorone	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Nitrobenzene	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
N-Nitrosodimethylamine	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
Pentachloronitrobenzene	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	10/08/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	2000	250	ug/Kg	1	10/08/21	WB	SW8270D
Phenol	ND	250	ug/Kg	1	10/08/21	WB	SW8270D
Pyrene	3300	250	ug/Kg	1	10/08/21	WB	SW8270D
Pyridine	ND	360	ug/Kg	1	10/08/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	101		%	1	10/08/21	WB	30 - 130 %
% 2-Fluorobiphenyl	74		%	1	10/08/21	WB	30 - 130 %
% 2-Fluorophenol	73		%	1	10/08/21	WB	30 - 130 %
% Nitrobenzene-d5	82		%	1	10/08/21	WB	30 - 130 %
% Phenol-d5	82		%	1	10/08/21	WB	30 - 130 %
% Terphenyl-d14	100		%	1	10/08/21	WB	30 - 130 %

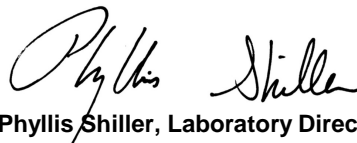
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**October 12, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

October 12, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

## Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: Standard  
 P.O.#: CRANSTON

## Custody Information

Collected by:  
 Received by: CP  
 Analyzed by: see "By" below

## Date

10/05/21  
 10/06/21

## Time

11:50  
 13:00

## Laboratory Data

SDG ID: GCJ50206  
 Phoenix ID: CJ50208

Project ID: 2021-060  
 Client ID: B-5-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	10/07/21	CPP	SW6010D
Arsenic	2.31	0.69	mg/Kg	1	10/07/21	CPP	SW6010D
Barium	27.6	0.35	mg/Kg	1	10/07/21	CPP	SW6010D
Cadmium	0.51	0.35	mg/Kg	1	10/07/21	CPP	SW6010D
Chromium	5.29	0.35	mg/Kg	1	10/07/21	CPP	SW6010D
Mercury	0.03	0.03	mg/Kg	2	10/11/21	AP	SW7471B
Lead	38.1	0.35	mg/Kg	1	10/07/21	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	10/07/21	CPP	SW6010D
Percent Solid	96		%		10/06/21	JS	SW846-%Solid
Field Extraction	Completed				10/05/21		SW5035A
Mercury Digestion	Completed				10/09/21	AB/AB	SW7471B
Extraction of ETPH	Completed				10/06/21	I/Y	SW3546
Soil Extraction for SVOA	Completed				10/07/21	R/Y	SW3546
Total Metals Digest	Completed				10/06/21	M/TH/BF	SW3050B

## TPH by GC (Extractable (C9-C36))

Fuel Oil #2 / Diesel Fuel	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Fuel Oil #4	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Fuel Oil #6	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Kerosene	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Motor Oil	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Total TPH	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO
Unidentified	ND	260	mg/kg	5	10/07/21	JRB	SW8015D DRO

## QA/QC Surrogates

% COD (surr)	147		%	5	10/07/21	JRB	50 - 150 %
% Terphenyl (surr)	96		%	5	10/07/21	JRB	50 - 150 %



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b>Volatiles</b>							
1,1,1,2-Tetrachloroethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.6	ug/Kg	1	10/07/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,1-Dichloroethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,1-Dichloroethene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,1-Dichloropropene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.27	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dichloroethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,2-Dichloropropane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,3-Dichloropropane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
2,2-Dichloropropane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
2-Chlorotoluene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
2-Hexanone	ND	13	ug/Kg	1	10/07/21	JLI	SW8260C
2-Isopropyltoluene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
4-Chlorotoluene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	13	ug/Kg	1	10/07/21	JLI	SW8260C
Acetone	ND	130	ug/Kg	1	10/07/21	JLI	SW8260C
Acrylonitrile	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Benzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Bromobenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Bromochloromethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Bromodichloromethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Bromoform	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Bromomethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Carbon Disulfide	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Carbon tetrachloride	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Chlorobenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Chloroethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Chloroform	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Chloromethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Dibromochloromethane	ND	1.6	ug/Kg	1	10/07/21	JLI	SW8260C
Dibromomethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Dichlorodifluoromethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Ethylbenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Hexachlorobutadiene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Isopropylbenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
m&p-Xylene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	16	ug/Kg	1	10/07/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	5.3	ug/Kg	1	10/07/21	JLI	SW8260C
Methylene chloride	ND	5.3	ug/Kg	1	10/07/21	JLI	SW8260C
Naphthalene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
n-Butylbenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
n-Propylbenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
o-Xylene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
p-Isopropyltoluene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
sec-Butylbenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Styrene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
tert-Butylbenzene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Tetrachloroethene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	5.3	ug/Kg	1	10/07/21	JLI	SW8260C
Toluene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Total Xylenes	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	5.3	ug/Kg	1	10/07/21	JLI	SW8260C
Trichloroethene	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Trichlorofluoromethane	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.3	ug/Kg	1	10/07/21	JLI	SW8260C
Vinyl chloride	ND	2.7	ug/Kg	1	10/07/21	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	102		%	1	10/07/21	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	10/07/21	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	10/07/21	JLI	70 - 130 %
% Toluene-d8	99		%	1	10/07/21	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
1,2-Dichlorobenzene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
1,3-Dichlorobenzene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
1,4-Dichlorobenzene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dichlorophenol	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dimethylphenol	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dinitrophenol	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
2,4-Dinitrotoluene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2,6-Dinitrotoluene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2-Chloronaphthalene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2-Chlorophenol	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2-Methylnaphthalene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
2-Nitroaniline	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
2-Nitrophenol	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	340	ug/Kg	1	10/08/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
3-Nitroaniline	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
4-Bromophenyl phenyl ether	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
4-Chloroaniline	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
4-Nitroaniline	ND	550	ug/Kg	1	10/08/21	WB	SW8270D
4-Nitrophenol	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Acenaphthene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Acetophenone	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Aniline	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
Anthracene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Benz(a)anthracene	740	240	ug/Kg	1	10/08/21	WB	SW8270D
Benzidine	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(a)pyrene	740	240	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(b)fluoranthene	640	240	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(ghi)perylene	540	240	ug/Kg	1	10/08/21	WB	SW8270D
Benzo(k)fluoranthene	650	240	ug/Kg	1	10/08/21	WB	SW8270D
Benzoic acid	ND	690	ug/Kg	1	10/08/21	WB	SW8270D
Benzyl butyl phthalate	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
Carbazole	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
Chrysene	750	240	ug/Kg	1	10/08/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Dibenzofuran	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Diethyl phthalate	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Dimethylphthalate	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Di-n-butylphthalate	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
Di-n-octylphthalate	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Fluoranthene	1500	240	ug/Kg	1	10/08/21	WB	SW8270D
Fluorene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Hexachlorobenzene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Hexachlorobutadiene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Hexachlorocyclopentadiene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Hexachloroethane	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	630	240	ug/Kg	1	10/08/21	WB	SW8270D
Isophorone	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Naphthalene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Nitrobenzene	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
N-Nitrosodimethylamine	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
Pentachloronitrobenzene	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
Pentachlorophenol	ND	340	ug/Kg	1	10/08/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Phenanthrene	850	240	ug/Kg	1	10/08/21	WB	SW8270D
Phenol	ND	240	ug/Kg	1	10/08/21	WB	SW8270D
Pyrene	1300	240	ug/Kg	1	10/08/21	WB	SW8270D
Pyridine	ND	340	ug/Kg	1	10/08/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	95		%	1	10/08/21	WB	30 - 130 %
% 2-Fluorobiphenyl	73		%	1	10/08/21	WB	30 - 130 %
% 2-Fluorophenol	73		%	1	10/08/21	WB	30 - 130 %
% Nitrobenzene-d5	82		%	1	10/08/21	WB	30 - 130 %
% Phenol-d5	81		%	1	10/08/21	WB	30 - 130 %
% Terphenyl-d14	94		%	1	10/08/21	WB	30 - 130 %

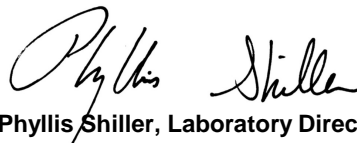
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**October 12, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



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# QA/QC Report

October 12, 2021

## QA/QC Data

SDG I.D.: GCJ50206

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 595640 (mg/kg), QC Sample No: CJ49214 2X (CJ50206)

Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	119	114	4.3	94.9	96.4	1.6	70 - 130	30
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Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 595642 (mg/kg), QC Sample No: CJ50387 2X (CJ50207, CJ50208)

Mercury - Soil	BRL	0.02	<0.03	<0.03	NC	119	128	7.3	84.1	91.2	8.1	70 - 130	30
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Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 595129 (mg/kg), QC Sample No: CJ50131 (CJ50206, CJ50207, CJ50208)

### ICP Metals - Soil

Arsenic	BRL	0.67	1.05	1.16	NC	102	99.8	2.2	94.3			75 - 125	35
Barium	BRL	0.33	30.8	30.0	2.60	103	98.5	4.5	104			75 - 125	35
Cadmium	BRL	0.33	0.39	0.38	NC	104	101	2.9	100			75 - 125	35
Chromium	BRL	0.33	6.62	6.50	1.80	111	105	5.6	98.6			75 - 125	35
Lead	BRL	0.33	22.8	17.4	26.9	109	107	1.9	117			75 - 125	35
Selenium	BRL	1.3	<1.4	<1.5	NC	96.4	98.3	2.0	94.6			75 - 125	35
Silver	BRL	0.33	<0.34	<0.37	NC	96.0	90.2	6.2	94.5			75 - 125	35

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.



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# QA/QC Report

October 12, 2021

## QA/QC Data

SDG I.D.: GCJ50206

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 595136 (mg/Kg), QC Sample No: CJ50206 (CJ50206, CJ50207, CJ50208)

### TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	91	70	26.1				60 - 120	30
% COD (surr)	78	%	83	98	16.6				50 - 150	30
% Terphenyl (surr)	77	%	79	93	16.3				50 - 150	30

Comment:

\*\*The MS/MSD could not be reported due to the presence of ETPH in the original sample. The LCS was within method criteria.

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 595326 (ug/kg), QC Sample No: CJ50406 (CJ50206, CJ50207, CJ50208)

### Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	78	78	0.0	76	78	2.6	40 - 140	30
1,2,4-Trichlorobenzene	ND	230	76	75	1.3	75	73	2.7	40 - 140	30
1,2-Dichlorobenzene	ND	180	70	69	1.4	70	65	7.4	40 - 140	30
1,2-Diphenylhydrazine	ND	230	88	85	3.5	80	82	2.5	40 - 140	30
1,3-Dichlorobenzene	ND	230	69	67	2.9	69	64	7.5	40 - 140	30
1,4-Dichlorobenzene	ND	230	68	68	0.0	69	64	7.5	40 - 140	30
2,4,5-Trichlorophenol	ND	230	92	91	1.1	87	93	6.7	40 - 140	30
2,4,6-Trichlorophenol	ND	130	94	93	1.1	88	93	5.5	30 - 130	30
2,4-Dichlorophenol	ND	130	92	92	0.0	88	92	4.4	30 - 130	30
2,4-Dimethylphenol	ND	230	88	88	0.0	89	92	3.3	30 - 130	30
2,4-Dinitrophenol	ND	230	52	40	26.1	101	77	27.0	30 - 130	30
2,4-Dinitrotoluene	ND	130	106	106	0.0	99	105	5.9	30 - 130	30
2,6-Dinitrotoluene	ND	130	100	98	2.0	93	99	6.3	40 - 140	30
2-Chloronaphthalene	ND	230	82	81	1.2	76	78	2.6	40 - 140	30
2-Chlorophenol	ND	230	83	82	1.2	83	82	1.2	30 - 130	30
2-Methylnaphthalene	ND	230	80	80	0.0	78	78	0.0	40 - 140	30
2-Methylphenol (o-cresol)	ND	230	82	80	2.5	80	83	3.7	40 - 140	30
2-Nitroaniline	ND	330	122	120	1.7	104	113	8.3	40 - 140	30
2-Nitrophenol	ND	230	99	99	0.0	99	98	1.0	40 - 140	30
3&4-Methylphenol (m&p-cresol)	ND	230	88	87	1.1	84	89	5.8	30 - 130	30
3,3'-Dichlorobenzidine	ND	130	107	104	2.8	65	77	16.9	40 - 140	30
3-Nitroaniline	ND	330	111	108	2.7	85	101	17.2	40 - 140	30
4,6-Dinitro-2-methylphenol	ND	230	74	64	14.5	101	84	18.4	30 - 130	30
4-Bromophenyl phenyl ether	ND	230	86	85	1.2	77	81	5.1	40 - 140	30
4-Chloro-3-methylphenol	ND	230	97	96	1.0	93	99	6.3	30 - 130	30
4-Chloroaniline	ND	230	89	89	0.0	58	78	29.4	40 - 140	30
4-Chlorophenyl phenyl ether	ND	230	85	83	2.4	79	82	3.7	40 - 140	30
4-Nitroaniline	ND	230	100	98	2.0	92	97	5.3	40 - 140	30
4-Nitrophenol	ND	230	106	104	1.9	105	110	4.7	30 - 130	30
Acenaphthene	ND	230	83	81	2.4	77	80	3.8	30 - 130	30
Acenaphthylene	ND	130	82	82	0.0	77	79	2.6	40 - 140	30

## QA/QC Data

SDG I.D.: GCJ50206

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
	Blank	RL									
Acetophenone	ND	230	78	76	2.6	75	75	0.0	40 - 140	30	
Aniline	ND	330	78	76	2.6	58	67	14.4	40 - 140	30	
Anthracene	ND	230	87	85	2.3	81	84	3.6	40 - 140	30	
Benz(a)anthracene	ND	230	87	86	1.2	78	83	6.2	40 - 140	30	
Benzdine	ND	330	97	92	5.3	<10	<10	NC	40 - 140	30	m
Benzo(a)pyrene	ND	130	90	88	2.2	78	83	6.2	40 - 140	30	
Benzo(b)fluoranthene	ND	160	88	87	1.1	78	87	10.9	40 - 140	30	
Benzo(ghi)perylene	ND	230	91	91	0.0	56	58	3.5	40 - 140	30	
Benzo(k)fluoranthene	ND	230	88	85	3.5	76	81	6.4	40 - 140	30	
Benzoic Acid	ND	670	53	35	40.9	67	64	4.6	30 - 130	30	r
Benzyl butyl phthalate	ND	230	106	105	0.9	95	101	6.1	40 - 140	30	
Bis(2-chloroethoxy)methane	ND	230	79	79	0.0	75	74	1.3	40 - 140	30	
Bis(2-chloroethyl)ether	ND	130	68	68	0.0	67	63	6.2	40 - 140	30	
Bis(2-chloroisopropyl)ether	ND	230	63	61	3.2	62	60	3.3	40 - 140	30	
Bis(2-ethylhexyl)phthalate	ND	230	106	105	0.9	94	99	5.2	40 - 140	30	
Carbazole	ND	230	91	89	2.2	84	88	4.7	40 - 140	30	
Chrysene	ND	230	88	86	2.3	76	81	6.4	40 - 140	30	
Dibenz(a,h)anthracene	ND	130	95	92	3.2	65	68	4.5	40 - 140	30	
Dibenzofuran	ND	230	84	82	2.4	77	81	5.1	40 - 140	30	
Diethyl phthalate	ND	230	92	90	2.2	84	88	4.7	40 - 140	30	
Dimethylphthalate	ND	230	90	88	2.2	82	85	3.6	40 - 140	30	
Di-n-butylphthalate	ND	670	98	96	2.1	88	92	4.4	40 - 140	30	
Di-n-octylphthalate	ND	230	100	98	2.0	90	97	7.5	40 - 140	30	
Fluoranthene	ND	230	92	89	3.3	79	85	7.3	40 - 140	30	
Fluorene	ND	230	86	85	1.2	81	85	4.8	40 - 140	30	
Hexachlorobenzene	ND	130	86	85	1.2	76	79	3.9	40 - 140	30	
Hexachlorobutadiene	ND	230	76	76	0.0	75	73	2.7	40 - 140	30	
Hexachlorocyclopentadiene	ND	230	69	69	0.0	32	26	20.7	40 - 140	30	m
Hexachloroethane	ND	130	70	69	1.4	70	64	9.0	40 - 140	30	
Indeno(1,2,3-cd)pyrene	ND	230	98	95	3.1	62	65	4.7	40 - 140	30	
Isophorone	ND	130	76	76	0.0	73	73	0.0	40 - 140	30	
Naphthalene	ND	230	74	74	0.0	73	72	1.4	40 - 140	30	
Nitrobenzene	ND	130	81	80	1.2	80	79	1.3	40 - 140	30	
N-Nitrosodimethylamine	ND	230	63	62	1.6	63	57	10.0	40 - 140	30	
N-Nitrosodi-n-propylamine	ND	130	80	79	1.3	77	76	1.3	40 - 140	30	
N-Nitrosodiphenylamine	ND	130	88	85	3.5	81	86	6.0	40 - 140	30	
Pentachloronitrobenzene	ND	230	97	94	3.1	87	95	8.8	40 - 140	30	
Pentachlorophenol	ND	230	91	89	2.2	83	89	7.0	30 - 130	30	
Phenanthrene	ND	130	83	81	2.4	75	80	6.5	40 - 140	30	
Phenol	ND	230	80	79	1.3	78	79	1.3	30 - 130	30	
Pyrene	ND	230	93	90	3.3	82	87	5.9	30 - 130	30	
Pyridine	ND	230	47	46	2.2	47	42	11.2	40 - 140	30	
% 2,4,6-Tribromophenol	99	%	98	97	1.0	93	98	5.2	30 - 130	30	
% 2-Fluorobiphenyl	74	%	78	77	1.3	72	74	2.7	30 - 130	30	
% 2-Fluorophenol	75	%	77	77	0.0	77	74	4.0	30 - 130	30	
% Nitrobenzene-d5	80	%	82	81	1.2	82	80	2.5	30 - 130	30	
% Phenol-d5	80	%	82	82	0.0	80	81	1.2	30 - 130	30	
% Terphenyl-d14	100	%	102	100	2.0	94	98	4.2	30 - 130	30	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

## QA/QC Data

SDG I.D.: GCJ50206

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
	Blank	RL									
QA/QC Batch 595451 (ug/kg), QC Sample No: CJ50473 (CJ50206, CJ50207, CJ50208)											
<b>Volatiles - Soil (Low Level)</b>											
1,1,1,2-Tetrachloroethane	ND	5.0	108	110	1.8	104	93	11.2	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	112	112	0.0	112	98	13.3	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	105	104	1.0	134	111	18.8	70 - 130	30	m
1,1,2-Trichloroethane	ND	5.0	101	100	1.0	103	93	10.2	70 - 130	30	
1,1-Dichloroethane	ND	5.0	111	110	0.9	111	129	15.0	70 - 130	30	
1,1-Dichloroethene	ND	5.0	108	108	0.0	106	94	12.0	70 - 130	30	
1,1-Dichloropropene	ND	5.0	109	109	0.0	108	99	8.7	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	115	121	5.1	123	98	22.6	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	103	101	2.0	106	92	14.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	110	116	5.3	98	80	20.2	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	103	105	1.9	95	74	24.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	108	109	0.9	117	96	19.7	70 - 130	30	
1,2-Dibromoethane	ND	5.0	105	105	0.0	107	93	14.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	97	100	3.0	97	82	16.8	70 - 130	30	
1,2-Dichloroethane	ND	5.0	109	108	0.9	110	99	10.5	70 - 130	30	
1,2-Dichloropropane	ND	5.0	104	104	0.0	105	96	9.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	105	107	1.9	99	78	23.7	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	98	100	2.0	96	79	19.4	70 - 130	30	
1,3-Dichloropropane	ND	5.0	107	107	0.0	110	98	11.5	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	97	100	3.0	97	82	16.8	70 - 130	30	
2,2-Dichloropropane	ND	5.0	118	112	5.2	113	100	12.2	70 - 130	30	
2-Chlorotoluene	ND	5.0	102	105	2.9	105	87	18.8	70 - 130	30	
2-Hexanone	ND	25	101	98	3.0	103	90	13.5	70 - 130	30	
2-Isopropyltoluene	ND	5.0	102	104	1.9	91	70	26.1	70 - 130	30	
4-Chlorotoluene	ND	5.0	102	104	1.9	97	82	16.8	70 - 130	30	
4-Methyl-2-pentanone	ND	25	114	109	4.5	117	104	11.8	70 - 130	30	
Acetone	ND	10	97	91	6.4	98	82	17.8	70 - 130	30	
Acrylonitrile	ND	5.0	114	111	2.7	96	123	24.7	70 - 130	30	
Benzene	ND	1.0	105	106	0.9	106	96	9.9	70 - 130	30	
Bromobenzene	ND	5.0	101	102	1.0	94	81	14.9	70 - 130	30	
Bromochloromethane	ND	5.0	107	104	2.8	107	95	11.9	70 - 130	30	
Bromodichloromethane	ND	5.0	106	106	0.0	101	94	7.2	70 - 130	30	
Bromoform	ND	5.0	104	104	0.0	93	82	12.6	70 - 130	30	
Bromomethane	ND	5.0	114	111	2.7	111	95	15.5	70 - 130	30	
Carbon Disulfide	ND	5.0	104	104	0.0	100	87	13.9	70 - 130	30	
Carbon tetrachloride	ND	5.0	112	113	0.9	105	92	13.2	70 - 130	30	
Chlorobenzene	ND	5.0	101	103	2.0	101	90	11.5	70 - 130	30	
Chloroethane	ND	5.0	105	106	0.9	99	89	10.6	70 - 130	30	
Chloroform	ND	5.0	110	108	1.8	110	98	11.5	70 - 130	30	
Chloromethane	ND	5.0	115	114	0.9	113	98	14.2	70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	105	104	1.0	108	94	13.9	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	108	108	0.0	104	96	8.0	70 - 130	30	
Dibromochloromethane	ND	3.0	106	105	0.9	100	89	11.6	70 - 130	30	
Dibromomethane	ND	5.0	105	103	1.9	109	96	12.7	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	119	118	0.8	107	96	10.8	70 - 130	30	
Ethylbenzene	ND	1.0	104	107	2.8	105	92	13.2	70 - 130	30	
Hexachlorobutadiene	ND	5.0	103	104	1.0	33	29	12.9	70 - 130	30	m
Isopropylbenzene	ND	1.0	103	106	2.9	100	82	19.8	70 - 130	30	
m&p-Xylene	ND	2.0	105	106	0.9	104	91	13.3	70 - 130	30	
Methyl ethyl ketone	ND	5.0	102	96	6.1	98	86	13.0	70 - 130	30	



QA/QC Data

SDG I.D.: GCJ50206

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Methyl t-butyl ether (MTBE)	ND	1.0	109	106	2.8	111	96	14.5	70 - 130	30
Methylene chloride	ND	5.0	89	86	3.4	88	75	16.0	70 - 130	30
Naphthalene	ND	5.0	122	123	0.8	108	90	18.2	70 - 130	30
n-Butylbenzene	ND	1.0	107	110	2.8	82	63	26.2	70 - 130	30 m
n-Propylbenzene	ND	1.0	103	106	2.9	91	73	22.0	70 - 130	30
o-Xylene	ND	2.0	103	104	1.0	102	89	13.6	70 - 130	30
p-Isopropyltoluene	ND	1.0	104	106	1.9	87	67	26.0	70 - 130	30 m
sec-Butylbenzene	ND	1.0	106	107	0.9	87	66	27.5	70 - 130	30 m
Styrene	ND	5.0	89	89	0.0	89	78	13.2	70 - 130	30
tert-Butylbenzene	ND	1.0	104	107	2.8	93	71	26.8	70 - 130	30
Tetrachloroethene	ND	5.0	99	100	1.0	94	85	10.1	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	113	108	4.5	118	102	14.5	70 - 130	30
Toluene	ND	1.0	103	104	1.0	102	94	8.2	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	107	107	0.0	106	93	13.1	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	111	111	0.0	107	97	9.8	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	125	124	0.8	111	96	14.5	70 - 130	30
Trichloroethene	ND	5.0	101	102	1.0	100	92	8.3	70 - 130	30
Trichlorofluoromethane	ND	5.0	118	115	2.6	109	100	8.6	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	94	94	0.0	90	81	10.5	70 - 130	30
Vinyl chloride	ND	5.0	119	118	0.8	114	101	12.1	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	100	100	0.0	99	100	1.0	70 - 130	30
% Bromofluorobenzene	101	%	103	102	1.0	111	111	0.0	70 - 130	30
% Dibromofluoromethane	96	%	100	100	0.0	100	98	2.0	70 - 130	30
% Toluene-d8	99	%	101	101	0.0	100	102	2.0	70 - 130	30

Comment:

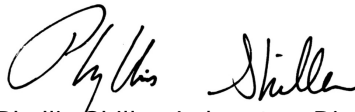
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference

  
 Phyllis Shiller, Laboratory Director  
 October 12, 2021

Tuesday, October 12, 2021

Criteria: None

State: RI

## Sample Criteria Exceedances Report

GCJ50206 - CMGENV

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Comments

October 12, 2021

SDG I.D.: GCJ50206

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

### **SVOA Narration**

**CHEM36 10/07/21-2:** CJ50206, CJ50207, CJ50208

The following Initial Calibration compounds did not meet recommended response factors: % 2,4,6-Tribromophenol 0.046 (0.05), 2-Nitrophenol 0.045 (0.1), Hexachlorobenzene 0.082 (0.1)

The following Initial Calibration compounds did not meet minimum response factors: % 2,4,6-Tribromophenol 0.046 (0.05), 2-Nitrophenol 0.045 (0.05)

The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.053 (0.1), Hexachlorobenzene 0.086 (0.1)

The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

### **VOA Narration**

**CHEM31 10/07/21-1:** CJ50206, CJ50207, CJ50208

The following Initial Calibration compounds did not meet RSD% criteria: 1,2,3-Trichlorobenzene 29% (20%), Naphthalene 38% (20%), Styrene 23% (20%), trans-1,4-dichloro-2-butene 24% (20%), Acetone 26% (20%), Bromoform 25% (20%), Methylene chloride 21% (20%)

The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: Tetrachloroethene 0.191 (0.2), Acetone 0.074 (0.1), Bromoform 0.087 (0.1)

The following Initial Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHAIN OF CUSTODY RECORD



587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040  
Email: info@phoenixlabs.com Fax (860) 645-0823  
Client Services (860) 645-8726

Coolant: Yes  No   
Cooler: Yes  No   
IPK  ICE  No

Temp 2.1 °C Pg of

Data Delivery/Contact Options:

Fax: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Email: phoenixlabs@comcast.net

Project P.O.: GreenStar

This section MUST be completed with Bottle Quantities.

Project: 2021-060

Report to: CAG

Invoice to: CAG

QUOTE # \_\_\_\_\_

Client Sample - Information - Identification

Sampler's Signature: SV Date: 10/5/21

Matrix Code:   
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water  
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil  
B=Bulk L=Liquid X= (Other)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
50206	B-1-2	S	10/5/21	1110
50207	B-3-2	S	↓	1130
50208	B-5-2	S	↓	1150

Analysis Request

MS/MSD  
TPH  
SIDS B200  
SIDS B207  
SIDS B210  
SIDS B212  
SIDS B213  
SIDS B214  
SIDS B215  
SIDS B216  
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SIDS B218  
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SIDS B300

Relinquished by: [Signature]  
Accepted by: [Signature]

RI	CI	MA	Data Format
<input checked="" type="checkbox"/> (Residential) Direct Exposure <input type="checkbox"/> (Comm/Industrial) Direct Exposure <input type="checkbox"/> GA Leachability <input type="checkbox"/> GB Leachability <input type="checkbox"/> GA-GW Objectives <input type="checkbox"/> GB-GW Objectives	<input type="checkbox"/> RCP Cert <input type="checkbox"/> GW Protection <input type="checkbox"/> SW Protection <input type="checkbox"/> GA Mobility <input type="checkbox"/> GB Mobility <input type="checkbox"/> Residential DEC <input type="checkbox"/> I/C DEC <input type="checkbox"/> Other	<input type="checkbox"/> MCP Certification <input type="checkbox"/> GW-1 <input type="checkbox"/> GW-2 <input type="checkbox"/> GW-3 <input type="checkbox"/> S-1 GW-1 <input type="checkbox"/> S-1 GW-2 <input type="checkbox"/> S-1 GW-3 <input type="checkbox"/> S-2 GW-1 <input type="checkbox"/> S-2 GW-2 <input type="checkbox"/> S-2 GW-3 <input type="checkbox"/> S-3 GW-1 <input type="checkbox"/> S-3 GW-2 <input type="checkbox"/> S-3 GW-3 <input type="checkbox"/> SW Protection	<input type="checkbox"/> Excel <input checked="" type="checkbox"/> PDF <input type="checkbox"/> GIS/Key <input type="checkbox"/> EQUIS <input type="checkbox"/> Other <b>Data Package</b> <input type="checkbox"/> Tier II Checklist <input type="checkbox"/> Full Data Package* <input checked="" type="checkbox"/> Phoenix Std Report <input type="checkbox"/> Other

Comments, Special Requirements or Regulations:  
Turnaround Time:  
 1 Day\*  
 2 Days\*  
 3 Days\*  
 Standard  
 Other  
\*SURCHARGE APPLIES

\*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

State where samples were collected: RI  
\* SURCHARGE APPLIES



Friday, November 19, 2021

Attn: Mr. Steve Van Wormer  
CMG Environmental, Inc.  
67 Hall Rd  
Sturbridge, MA 01566

Project ID: 2021-060  
SDG ID: GCJ78424  
Sample ID#s: CJ78424 - CJ78428

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller

Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

## Sample Id Cross Reference

November 19, 2021

SDG I.D.: GCJ78424

Project ID: 2021-060

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Client Id	Lab Id	Matrix
CMG-1 (1-4)	CJ78424	SOIL
CMG-1 (35-37)	CJ78425	SOIL
CMG-2 (2-4)	CJ78426	SOIL
CMG-2 (35-37)	CJ78427	SOIL
CMG-3 (2-4)	CJ78428	SOIL



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**Analysis Report**  
 November 19, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: CRANSTON

Custody Information

Collected by: SV  
 Received by: CP  
 Analyzed by: see "By" below

Date

11/15/21  
 11/16/21

Time

9:00  
 14:10

Laboratory Data

SDG ID: GCJ78424  
 Phoenix ID: CJ78424

Project ID: 2021-060  
 Client ID: CMG-1 (1-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/17/21	EK	SW6010D
Arsenic	2.19	0.71	mg/Kg	1	11/17/21	EK	SW6010D
Barium	36.8	0.35	mg/Kg	1	11/17/21	EK	SW6010D
Cadmium	< 0.35	0.35	mg/Kg	1	11/17/21	EK	SW6010D
Chromium	7.24	0.35	mg/Kg	1	11/17/21	EK	SW6010D
Mercury	0.13	0.03	mg/Kg	2	11/17/21	AP	SW7471B
Lead	106	0.35	mg/Kg	1	11/17/21	EK	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	11/17/21	EK	SW6010D
Percent Solid	94		%		11/16/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/17/21		</AB/K/AESW7471B
Soil Extraction for SVOA PAH	Completed				11/16/21	R/L	SW3546
Total Metals Digest	Completed				11/16/21	M/AG	SW3050B

**Polynuclear Aromatic HC**

2-Methylnaphthalene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D
Acenaphthylene	310	250	ug/Kg	1	11/17/21	WB	SW8270D
Anthracene	480	250	ug/Kg	1	11/17/21	WB	SW8270D
Benz(a)anthracene	1900	250	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(a)pyrene	1800	250	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(b)fluoranthene	1700	250	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(ghi)perylene	1200	250	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(k)fluoranthene	1500	250	ug/Kg	1	11/17/21	WB	SW8270D
Chrysene	1900	250	ug/Kg	1	11/17/21	WB	SW8270D
Dibenz(a,h)anthracene	300	250	ug/Kg	1	11/17/21	WB	SW8270D
Fluoranthene	3700	250	ug/Kg	1	11/17/21	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D

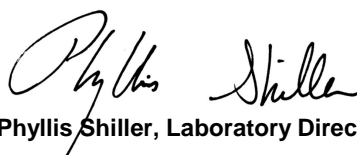
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	1200	250	ug/Kg	1	11/17/21	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D
Phenanthrene	2200	250	ug/Kg	1	11/17/21	WB	SW8270D
Pyrene	3000	250	ug/Kg	1	11/17/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	73		%	1	11/17/21	WB	30 - 130 %
% Nitrobenzene-d5	80		%	1	11/17/21	WB	30 - 130 %
% Terphenyl-d14	67		%	1	11/17/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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**Phyllis Shiller, Laboratory Director**

**November 19, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**





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 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 19, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: CRANSTON

Custody Information

Collected by: SV  
 Received by: CP  
 Analyzed by: see "By" below

Date                      Time  
 11/15/21                      10:30  
 11/16/21                      14:10

Laboratory Data

SDG ID: GCJ78424  
 Phoenix ID: CJ78425

Project ID: 2021-060  
 Client ID: CMG-1 (35-37)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	83		%		11/16/21	JS	SW846-%Solid
Extraction of ETPH	Completed				11/17/21	K/K	SW3546
Field Extraction	Completed				11/15/21		SW5035A

**TPH by GC (Extractable (C9-C36))**

Fuel Oil #2 / Diesel Fuel	ND	60	mg/kg	1	11/17/21	JRB	SW8015D DRO
Fuel Oil #4	ND	60	mg/kg	1	11/17/21	JRB	SW8015D DRO
Fuel Oil #6	ND	60	mg/kg	1	11/17/21	JRB	SW8015D DRO
Kerosene	ND	60	mg/kg	1	11/17/21	JRB	SW8015D DRO
Motor Oil	ND	60	mg/kg	1	11/17/21	JRB	SW8015D DRO
Total TPH	ND	60	mg/kg	1	11/17/21	JRB	SW8015D DRO
Unidentified	ND	60	mg/kg	1	11/17/21	JRB	SW8015D DRO

**QA/QC Surrogates**

% COD (surr)	82		%	1	11/17/21	JRB	50 - 150 %
% Terphenyl (surr)	83		%	1	11/17/21	JRB	50 - 150 %

**Volatiles**

1,1,1,2-Tetrachloroethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,1-Dichloroethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,1-Dichloroethene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,1-Dichloropropene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4-Trimethylbenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.26	ug/Kg	1	11/17/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,2-Dichloroethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,2-Dichloropropane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,3-Dichloropropane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
2,2-Dichloropropane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
2-Chlorotoluene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
2-Hexanone	ND	13	ug/Kg	1	11/17/21	JLI	SW8260C
2-Isopropyltoluene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
4-Chlorotoluene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	13	ug/Kg	1	11/17/21	JLI	SW8260C
Acetone	ND	130	ug/Kg	1	11/17/21	JLI	SW8260C
Acrylonitrile	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Benzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Bromobenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Bromochloromethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Bromodichloromethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Bromoform	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Bromomethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Carbon Disulfide	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Carbon tetrachloride	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Chlorobenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Chloroethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Chloroform	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Chloromethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Dibromochloromethane	ND	1.6	ug/Kg	1	11/17/21	JLI	SW8260C
Dibromomethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Dichlorodifluoromethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Ethylbenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Hexachlorobutadiene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Isopropylbenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
m&p-Xylene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	16	ug/Kg	1	11/17/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	5.2	ug/Kg	1	11/17/21	JLI	SW8260C
Methylene chloride	ND	5.2	ug/Kg	1	11/17/21	JLI	SW8260C
Naphthalene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
n-Butylbenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
n-Propylbenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
o-Xylene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
p-Isopropyltoluene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
sec-Butylbenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Styrene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
tert-Butylbenzene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Tetrachloroethene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	5.2	ug/Kg	1	11/17/21	JLI	SW8260C
Toluene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Total Xylenes	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	5.2	ug/Kg	1	11/17/21	JLI	SW8260C
Trichloroethene	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Trichlorofluoromethane	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.2	ug/Kg	1	11/17/21	JLI	SW8260C
Vinyl chloride	ND	2.6	ug/Kg	1	11/17/21	JLI	SW8260C
<b>QA/QC Surrogates</b>							
% 1,2-dichlorobenzene-d4	99		%	1	11/17/21	JLI	70 - 130 %
% Bromofluorobenzene	92		%	1	11/17/21	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	11/17/21	JLI	70 - 130 %
% Toluene-d8	98		%	1	11/17/21	JLI	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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**Phyllis Shiller, Laboratory Director**

**November 19, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



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 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 19, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: CRANSTON

Custody Information

Collected by: SV  
 Received by: CP  
 Analyzed by: see "By" below

Date

11/15/21  
 11/16/21

Time

11:30  
 14:10

Laboratory Data

SDG ID: GCJ78424  
 Phoenix ID: CJ78426

Project ID: 2021-060  
 Client ID: CMG-2 (2-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	1	11/17/21	EK	SW6010D
Arsenic	1.69	0.66	mg/Kg	1	11/17/21	EK	SW6010D
Barium	18.5	0.33	mg/Kg	1	11/17/21	EK	SW6010D
Cadmium	< 0.33	0.33	mg/Kg	1	11/17/21	EK	SW6010D
Chromium	7.80	0.33	mg/Kg	1	11/17/21	EK	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	11/17/21	AP	SW7471B
Lead	13.7	0.33	mg/Kg	1	11/17/21	EK	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	11/17/21	EK	SW6010D
Percent Solid	95		%		11/16/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/17/21		</AB/K/AESW7471B
Soil Extraction for SVOA PAH	Completed				11/16/21	R/L	SW3546
Total Metals Digest	Completed				11/16/21	M/AG	SW3050B

**Polynuclear Aromatic HC**

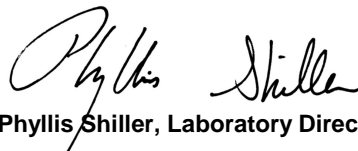
2-Methylnaphthalene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D
Anthracene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D
Benz(a)anthracene	380	250	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(a)pyrene	420	250	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(b)fluoranthene	400	250	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(ghi)perylene	300	250	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(k)fluoranthene	360	250	ug/Kg	1	11/17/21	WB	SW8270D
Chrysene	420	250	ug/Kg	1	11/17/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D
Fluoranthene	680	250	ug/Kg	1	11/17/21	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	360	250	ug/Kg	1	11/17/21	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	11/17/21	WB	SW8270D
Phenanthrene	460	250	ug/Kg	1	11/17/21	WB	SW8270D
Pyrene	600	250	ug/Kg	1	11/17/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	74		%	1	11/17/21	WB	30 - 130 %
% Nitrobenzene-d5	81		%	1	11/17/21	WB	30 - 130 %
% Terphenyl-d14	75		%	1	11/17/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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**Phyllis Shiller, Laboratory Director**

**November 19, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



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**Analysis Report**  
 November 19, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: CRANSTON

Custody Information

Collected by: SV  
 Received by: CP  
 Analyzed by: see "By" below

Date                      Time  
 11/15/21                      12:30  
 11/16/21                      14:10

Laboratory Data

SDG ID: GCJ78424  
 Phoenix ID: CJ78427

Project ID: 2021-060  
 Client ID: CMG-2 (35-37)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	89		%		11/16/21	JS	SW846-%Solid
Field Extraction	Completed				11/15/21		SW5035A
Extraction of ETPH	Completed				11/16/21	R/Y	SW3546

**TPH by GC (Extractable (C9-C36))**

Fuel Oil #2 / Diesel Fuel	ND	55	mg/kg	1	11/17/21	JRB	SW8015D DRO
Fuel Oil #4	ND	55	mg/kg	1	11/17/21	JRB	SW8015D DRO
Fuel Oil #6	ND	55	mg/kg	1	11/17/21	JRB	SW8015D DRO
Kerosene	ND	55	mg/kg	1	11/17/21	JRB	SW8015D DRO
Motor Oil	ND	55	mg/kg	1	11/17/21	JRB	SW8015D DRO
Total TPH	ND	55	mg/kg	1	11/17/21	JRB	SW8015D DRO
Unidentified	ND	55	mg/kg	1	11/17/21	JRB	SW8015D DRO

**QA/QC Surrogates**

% COD (surr)	82		%	1	11/17/21	JRB	50 - 150 %
% Terphenyl (surr)	93		%	1	11/17/21	JRB	50 - 150 %

**Volatiles**

1,1,1,2-Tetrachloroethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.7	ug/Kg	1	11/17/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,1-Dichloroethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,1-Dichloroethene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,1-Dichloropropene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2,4-Trimethylbenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.29	ug/Kg	1	11/17/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,2-Dichloroethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,2-Dichloropropane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,3-Dichloropropane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
2,2-Dichloropropane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
2-Chlorotoluene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
2-Hexanone	ND	14	ug/Kg	1	11/17/21	JLI	SW8260C
2-Isopropyltoluene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
4-Chlorotoluene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	14	ug/Kg	1	11/17/21	JLI	SW8260C
Acetone	ND	140	ug/Kg	1	11/17/21	JLI	SW8260C
Acrylonitrile	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Benzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Bromobenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Bromochloromethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Bromodichloromethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Bromoform	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Bromomethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Carbon Disulfide	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Carbon tetrachloride	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Chlorobenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Chloroethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Chloroform	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Chloromethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Dibromochloromethane	ND	1.7	ug/Kg	1	11/17/21	JLI	SW8260C
Dibromomethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Dichlorodifluoromethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Ethylbenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Hexachlorobutadiene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Isopropylbenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
m&p-Xylene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	17	ug/Kg	1	11/17/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	5.7	ug/Kg	1	11/17/21	JLI	SW8260C
Methylene chloride	ND	5.7	ug/Kg	1	11/17/21	JLI	SW8260C
Naphthalene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
n-Butylbenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
n-Propylbenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
o-Xylene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
p-Isopropyltoluene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
sec-Butylbenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Styrene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
tert-Butylbenzene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Tetrachloroethene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	5.7	ug/Kg	1	11/17/21	JLI	SW8260C
Toluene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Total Xylenes	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	5.7	ug/Kg	1	11/17/21	JLI	SW8260C
Trichloroethene	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Trichlorofluoromethane	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	5.7	ug/Kg	1	11/17/21	JLI	SW8260C
Vinyl chloride	ND	2.9	ug/Kg	1	11/17/21	JLI	SW8260C
<b>QA/QC Surrogates</b>							
% 1,2-dichlorobenzene-d4	100		%	1	11/17/21	JLI	70 - 130 %
% Bromofluorobenzene	93		%	1	11/17/21	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	11/17/21	JLI	70 - 130 %
% Toluene-d8	99		%	1	11/17/21	JLI	70 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.  
 If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
 The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**November 19, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**





Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 19, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: CRANSTON

Custody Information

Collected by: SV  
 Received by: CP  
 Analyzed by: see "By" below

Date

11/15/21  
 11/16/21

Time

13:45  
 14:10

Laboratory Data

SDG ID: GCJ78424  
 Phoenix ID: CJ78428

Project ID: 2021-060  
 Client ID: CMG-3 (2-4)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/17/21	EK	SW6010D
Arsenic	1.76	0.70	mg/Kg	1	11/17/21	EK	SW6010D
Barium	31.5	0.35	mg/Kg	1	11/17/21	EK	SW6010D
Cadmium	< 0.35	0.35	mg/Kg	1	11/17/21	EK	SW6010D
Chromium	5.04	0.35	mg/Kg	1	11/17/21	EK	SW6010D
Mercury	0.49	0.03	mg/Kg	2	11/17/21	AP	SW7471B
Lead	131	0.35	mg/Kg	1	11/17/21	EK	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	11/17/21	EK	SW6010D
Percent Solid	90		%		11/16/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/17/21		</AB/K/AESW7471B
Soil Extraction for SVOA PAH	Completed				11/16/21	R/L	SW3546
Total Metals Digest	Completed				11/16/21	M/AG	SW3050B

Polynuclear Aromatic HC

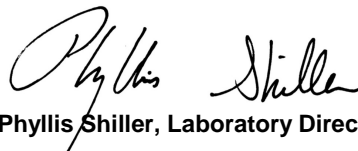
2-Methylnaphthalene	ND	260	ug/Kg	1	11/17/21	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	11/17/21	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	11/17/21	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	11/17/21	WB	SW8270D
Benz(a)anthracene	520	260	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(a)pyrene	570	260	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(b)fluoranthene	530	260	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(ghi)perylene	430	260	ug/Kg	1	11/17/21	WB	SW8270D
Benzo(k)fluoranthene	490	260	ug/Kg	1	11/17/21	WB	SW8270D
Chrysene	560	260	ug/Kg	1	11/17/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	11/17/21	WB	SW8270D
Fluoranthene	900	260	ug/Kg	1	11/17/21	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	11/17/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	470	260	ug/Kg	1	11/17/21	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	11/17/21	WB	SW8270D
Phenanthrene	550	260	ug/Kg	1	11/17/21	WB	SW8270D
Pyrene	790	260	ug/Kg	1	11/17/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	69		%	1	11/17/21	WB	30 - 130 %
% Nitrobenzene-d5	78		%	1	11/17/21	WB	30 - 130 %
% Terphenyl-d14	71		%	1	11/17/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.  
If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
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**Phyllis Shiller, Laboratory Director**

**November 19, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
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# QA/QC Report

November 19, 2021

## QA/QC Data

SDG I.D.: GCJ78424

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 601046 (mg/kg), QC Sample No: CJ79209 2X (CJ78424, CJ78426, CJ78428)

Mercury - Soil	BRL	0.02	0.04	<0.03	NC	123	121	1.6	74.4	69.2	7.2	70 - 130	30 m
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Comment:  
 Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 600959 (mg/kg), QC Sample No: CJ78733 (CJ78424, CJ78426, CJ78428)

### ICP Metals - Soil

Arsenic	BRL	0.67	1.8	1.6	NC	113	109	3.6	99.8			75 - 125	35
Barium	BRL	0.33	114	113	0.90	107	109	1.9	101			75 - 125	35
Cadmium	BRL	0.33	<0.61	<0.61	NC	108	106	1.9	99.5			75 - 125	35
Chromium	BRL	0.33	18.7	17.7	5.50	94.7	89.9	5.2	102			75 - 125	35
Lead	BRL	0.33	31.4	21.5	37.4	105	107	1.9	102			75 - 125	35 r
Selenium	BRL	1.3	<2.4	<2.4	NC	95.8	98.5	2.8	96.3			75 - 125	35
Silver	BRL	0.33	<0.61	<0.61	NC	101	99.0	2.0	98.5			75 - 125	35

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

m = This parameter is outside laboratory MS/MSD specified recovery limits.  
 r = This parameter is outside laboratory RPD specified recovery limits.



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# QA/QC Report

November 19, 2021

## QA/QC Data

SDG I.D.: GCJ78424

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 600940 (mg/Kg), QC Sample No: CJ78166 (CJ78427)										
<b>TPH by GC (Extractable Products) - Soil</b>										
Ext. Petroleum H.C. (C9-C36)	ND	50	97	117	18.7	121	108	11.4	60 - 120	30
% COD (surr)	84	%	77	109	34.4	108	107	0.9	50 - 150	30
% Terphenyl (surr)	78	%	83	105	23.4	119	111	7.0	50 - 150	30

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 601083 (mg/Kg), QC Sample No: CJ78425 (CJ78425)

### TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	99	87	12.9	84	96	13.3	60 - 120	30
% COD (surr)	76	%	96	123	24.7	111	102	8.5	50 - 150	30
% Terphenyl (surr)	71	%	85	86	1.2	79	96	19.4	50 - 150	30

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 600956 (ug/kg), QC Sample No: CJ78432 (CJ78424, CJ78426, CJ78428)

### Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	230	79	79	0.0	76	73	4.0	40 - 140	30
Acenaphthene	ND	230	86	87	1.2	84	83	1.2	30 - 130	30
Acenaphthylene	ND	230	80	80	0.0	79	77	2.6	40 - 140	30
Anthracene	ND	230	82	86	4.8	83	81	2.4	40 - 140	30
Benz(a)anthracene	ND	230	80	87	8.4	82	79	3.7	40 - 140	30
Benzo(a)pyrene	ND	230	79	83	4.9	79	77	2.6	40 - 140	30
Benzo(b)fluoranthene	ND	230	81	85	4.8	82	78	5.0	40 - 140	30
Benzo(ghi)perylene	ND	230	86	89	3.4	83	85	2.4	40 - 140	30
Benzo(k)fluoranthene	ND	230	79	84	6.1	78	77	1.3	40 - 140	30
Chrysene	ND	230	82	89	8.2	82	82	0.0	40 - 140	30
Dibenz(a,h)anthracene	ND	230	88	92	4.4	86	87	1.2	40 - 140	30
Fluoranthene	ND	230	78	82	5.0	80	77	3.8	40 - 140	30
Fluorene	ND	230	85	90	5.7	85	82	3.6	40 - 140	30
Indeno(1,2,3-cd)pyrene	ND	230	81	83	2.4	79	79	0.0	40 - 140	30
Naphthalene	ND	230	76	75	1.3	75	74	1.3	40 - 140	30
Phenanthrene	ND	230	81	85	4.8	82	80	2.5	40 - 140	30
Pyrene	ND	230	78	82	5.0	85	82	3.6	30 - 130	30
% 2-Fluorobiphenyl	74	%	75	74	1.3	75	74	1.3	30 - 130	30
% Nitrobenzene-d5	80	%	80	79	1.3	78	76	2.6	30 - 130	30
% Terphenyl-d14	80	%	83	87	4.7	87	84	3.5	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

## QA/QC Data

SDG I.D.: GCJ78424

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
	Blank	RL									
QA/QC Batch 601082 (ug/kg), QC Sample No: CJ79157 (CJ78425, CJ78427)											
<u>Volatiles - Soil (Low Level)</u>											
1,1,1,2-Tetrachloroethane	ND	5.0	112	108	3.6	98			70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	102	99	3.0	96			70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	101	97	4.0	89			70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	98	97	1.0	90			70 - 130	30	
1,1-Dichloroethane	ND	5.0	105	102	2.9	99			70 - 130	30	
1,1-Dichloroethene	ND	5.0	107	104	2.8	107			70 - 130	30	
1,1-Dichloropropene	ND	5.0	104	101	2.9	96			70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	95	93	2.1	42			70 - 130	30	m
1,2,3-Trichloropropane	ND	5.0	104	97	7.0	85			70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	93	90	3.3	45			70 - 130	30	m
1,2,4-Trimethylbenzene	ND	1.0	100	96	4.1	69			70 - 130	30	m
1,2-Dibromo-3-chloropropane	ND	5.0	100	93	7.3	80			70 - 130	30	
1,2-Dibromoethane	ND	5.0	101	96	5.1	90			70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	99	95	4.1	66			70 - 130	30	m
1,2-Dichloroethane	ND	5.0	98	96	2.1	91			70 - 130	30	
1,2-Dichloropropane	ND	5.0	99	96	3.1	93			70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	103	99	4.0	107			70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	98	94	4.2	67			70 - 130	30	m
1,3-Dichloropropane	ND	5.0	105	100	4.9	95			70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	97	94	3.1	68			70 - 130	30	m
2,2-Dichloropropane	ND	5.0	87	84	3.5	78			70 - 130	30	
2-Chlorotoluene	ND	5.0	104	101	2.9	78			70 - 130	30	
2-Hexanone	ND	25	90	85	5.7	49			70 - 130	30	m
2-Isopropyltoluene	ND	5.0	103	99	4.0	72			70 - 130	30	
4-Chlorotoluene	ND	5.0	103	98	5.0	74			70 - 130	30	
4-Methyl-2-pentanone	ND	25	93	89	4.4	65			70 - 130	30	m
Acetone	ND	10	96	85	12.2	76			70 - 130	30	
Acrylonitrile	ND	5.0	98	93	5.2	69			70 - 130	30	m
Benzene	ND	1.0	102	100	2.0	98			70 - 130	30	
Bromobenzene	ND	5.0	101	96	5.1	78			70 - 130	30	
Bromochloromethane	ND	5.0	102	100	2.0	96			70 - 130	30	
Bromodichloromethane	ND	5.0	104	100	3.9	95			70 - 130	30	
Bromoform	ND	5.0	112	107	4.6	93			70 - 130	30	
Bromomethane	ND	5.0	116	109	6.2	114			70 - 130	30	
Carbon Disulfide	ND	5.0	101	98	3.0	98			70 - 130	30	
Carbon tetrachloride	ND	5.0	112	109	2.7	101			70 - 130	30	
Chlorobenzene	ND	5.0	105	101	3.9	91			70 - 130	30	
Chloroethane	ND	5.0	113	106	6.4	114			70 - 130	30	
Chloroform	ND	5.0	104	100	3.9	97			70 - 130	30	
Chloromethane	ND	5.0	101	100	1.0	97			70 - 130	30	
cis-1,2-Dichloroethene	ND	5.0	103	100	3.0	98			70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	97	94	3.1	87			70 - 130	30	
Dibromochloromethane	ND	3.0	110	105	4.7	97			70 - 130	30	
Dibromomethane	ND	5.0	99	97	2.0	92			70 - 130	30	
Dichlorodifluoromethane	ND	5.0	107	104	2.8	103			70 - 130	30	
Ethylbenzene	ND	1.0	106	103	2.9	89			70 - 130	30	
Hexachlorobutadiene	ND	5.0	100	96	4.1	43			70 - 130	30	m
Isopropylbenzene	ND	1.0	105	100	4.9	78			70 - 130	30	
m&p-Xylene	ND	2.0	106	102	3.8	86			70 - 130	30	
Methyl ethyl ketone	ND	5.0	99	92	7.3	71			70 - 130	30	

QA/QC Data

SDG I.D.: GCJ78424

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Methyl t-butyl ether (MTBE)	ND	1.0	90	86	4.5	85			70 - 130	30
Methylene chloride	ND	5.0	90	87	3.4	92			70 - 130	30
Naphthalene	ND	5.0	96	93	3.2	52			70 - 130	30
n-Butylbenzene	ND	1.0	104	102	1.9	67			70 - 130	30
n-Propylbenzene	ND	1.0	105	101	3.9	73			70 - 130	30
o-Xylene	ND	2.0	102	98	4.0	87			70 - 130	30
p-Isopropyltoluene	ND	1.0	103	99	4.0	73			70 - 130	30
sec-Butylbenzene	ND	1.0	107	103	3.8	68			70 - 130	30
Styrene	ND	5.0	100	97	3.0	82			70 - 130	30
tert-Butylbenzene	ND	1.0	105	100	4.9	72			70 - 130	30
Tetrachloroethene	ND	5.0	100	97	3.0	85			70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	96	90	6.5	84			70 - 130	30
Toluene	ND	1.0	101	99	2.0	91			70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	107	104	2.8	105			70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	96	93	3.2	84			70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	102	96	6.1	77			70 - 130	30
Trichloroethene	ND	5.0	104	102	1.9	99			70 - 130	30
Trichlorofluoromethane	ND	5.0	122	117	4.2	119			70 - 130	30
Trichlorotrifluoroethane	ND	5.0	101	98	3.0	96			70 - 130	30
Vinyl chloride	ND	5.0	111	108	2.7	108			70 - 130	30
% 1,2-dichlorobenzene-d4	99	%	99	99	0.0	99			70 - 130	30
% Bromofluorobenzene	92	%	96	97	1.0	99			70 - 130	30
% Dibromofluoromethane	97	%	98	96	2.1	96			70 - 130	30
% Toluene-d8	98	%	98	99	1.0	98			70 - 130	30

Comment:

The MSD is not reported for this LL soil batch.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample


LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

  
 Phyllis Shiller, Laboratory Director  
 November 19, 2021

Friday, November 19, 2021

Criteria: RI: RC

State: RI

## Sample Criteria Exceedances Report

GCJ78424 - CMGENV

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CJ78424	\$8100SMR	Indeno(1,2,3-cd)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1200	250	900	900	ug/Kg
CJ78424	\$8100SMR	Chrysene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1900	250	400	400	ug/Kg
CJ78424	\$8100SMR	Benzo(k)fluoranthene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1500	250	900	900	ug/Kg
CJ78424	\$8100SMR	Benzo(ghi)perylene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1200	250	800	800	ug/Kg
CJ78424	\$8100SMR	Benzo(b)fluoranthene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1700	250	900	900	ug/Kg
CJ78424	\$8100SMR	Benzo(a)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1800	250	400	400	ug/Kg
CJ78424	\$8100SMR	Benz(a)anthracene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1900	250	900	900	ug/Kg
CJ78426	\$8100SMR	Chrysene	RI / Direct Exposure Criteria / Semivolatiles (Res)	420	250	400	400	ug/Kg
CJ78426	\$8100SMR	Benzo(a)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	420	250	400	400	ug/Kg
CJ78428	\$8100SMR	Chrysene	RI / Direct Exposure Criteria / Semivolatiles (Res)	560	260	400	400	ug/Kg
CJ78428	\$8100SMR	Benzo(a)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	570	260	400	400	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Comments

November 19, 2021

SDG I.D.: GCJ78424

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The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

### **VOA Narration**

**CHEM03 11/16/21-2:** CJ78425, CJ78427

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 24% (20%), Chloroethane 24% (20%)

The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: Acetone 0.066 (0.1), Tetrachloroethene 0.162 (0.2)

The following Initial Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.



# CHAIN OF CUSTODY RECORD



587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040  
 Email: info@phoenixlabs.com Fax (860) 645-0823  
**Client Services (860) 645-8726**

Coolant: Yes  No   
 IPK  ICE   
 Temp 2.0 °C Pg 1 of 1

Data Delivery/Contact Options:

Fax:   
 Phone:   
 Email: SV@PHOENIXLABS.COM

Project P.O.: CAMSTAR

**This section MUST be completed with Bottle Quantities.**

Customer: CMG  
 Address: 67 Itaska Road  
Sturbridge MA  
 Project: 2021-060  
 Report to: CMG  
 Invoice to: CMG  
 QUOTE # \_\_\_\_\_

Client Sample - Information - Identification

Sampler's Signature: SV Date: 11/15/21

Matrix Code: SW  
 GW=Ground Water SW=Surface Water WW=Waste Water  
 DW=Drinking Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe OIL=Oil  
 B=Bulk L=Liquid X= (Other)

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
78424	CMG-1 (1-4)	S	11/15/21	0900
78425	CMG-1 (35-37)	↓		1030
78426	CMG-2 (2-4)	↓		1130
78427	CMG-2 (35-37)	↓		1230
78428	CMG-3 (2-4)	↓		1345

Analysis Request

TRT  
PARS  
GLAC & MEXUS

MS/MSD	GL Amber 8oz w/13PO4	GL Soil container (K) HPO	GL Amber 1000ml [As is] [HCL]	PL H2SO4 [250ml] [1500ml]	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/10
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Requisitioned by: [Signature] Accepted by: [Signature]  
 Date: 11/16/21 0906  
11/16 140  
 Turnaround Time:  
 1 Day\*  
 2 Days\*  
 3 Days\*  
 Standard  
 Other  
 \*SURCHARGE APPLIES

RI  (Residential) Direct Exposure  
 (Comm/Industrial) Direct Exposure  
 GA Leachability  
 GB Leachability  
 GA-GW Objectives  
 GB-GW Objectives  
 CT  RCP Cert  
 GW Protection  
 SW Protection  
 GA Mobility  
 GB Mobility  
 Residential DEC  
 I/C DEC  
 Other  
 MA  MCP Certification  
 GW-1  MWRA eSMART  
 GW-2  S-1 10% CALC  
 GW-3  
 S-1 GW-1  S-1 GW-2  S-1 GW-3  
 S-2 GW-1  S-2 GW-2  S-2 GW-3  
 S-3 GW-1  S-3 GW-2  S-3 GW-3  
 SW Protection  
 Data Format  
 Excel  
 PDF  
 GIS/Key  
 EQUIS  
 Other  
 Data Package  
 Tier II Checklist  
 Full Data Package\*  
 Phoenix Std Report  
 Other  
 \*SURCHARGE APPLIES

\*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

State where samples were collected: RI



Monday, November 22, 2021

Attn: Mr. Gary Magnuson  
CMG Environmental, Inc.  
67 Hall Rd  
Sturbridge, MA 01566

Project ID: 2021-060  
SDG ID: GCJ80902  
Sample ID#s: CJ80902 - CJ80915

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller  
Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

## Sample Id Cross Reference

November 22, 2021

SDG I.D.: GCJ80902

Project ID: 2021-060

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Client Id	Lab Id	Matrix
CMG-3, 30-32	CJ80902	SOIL
CMG-5, 0-2`	CJ80903	SOIL
CMG-5, 5-7`	CJ80904	SOIL
CMG-5, 25-27`	CJ80905	SOIL
CMG-4, 0-2`	CJ80906	SOIL
CMG-4, 30-32`	CJ80907	SOIL
CMG-6, 2-4`	CJ80908	SOIL
CMG-6, 25-27`	CJ80909	SOIL
CMG-7, 2-4`	CJ80910	SOIL
CMG-7 5-7`	CJ80911	SOIL
CMG-7 10-12`	CJ80912	SOIL
CMG-7, 25-27	CJ80913	SOIL
CMG-8, 2-4`	CJ80914	SOIL
CMG-8, 20-22`	CJ80915	SOIL



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/16/21  
 11/18/21

Time

7:30  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80902

Project ID: 2021-060  
 Client ID: CMG-3, 30-32

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	77		%		11/18/21	JS	SW846-%Solid
Field Extraction	Completed				11/16/21		SW5035A
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546

Volatiles

1,1,1,2-Tetrachloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.8	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloropropene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.63	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloropropane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichloropropane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
2,2-Dichloropropane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
2-Chlorotoluene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Hexanone	ND	31	ug/Kg	1	11/19/21	JLI	SW8260C
2-Isopropyltoluene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
4-Chlorotoluene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	11/19/21	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	11/19/21	JLI	SW8260C
Acrylonitrile	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Benzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromochloromethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromodichloromethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromoform	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromomethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon Disulfide	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon tetrachloride	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroform	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chloromethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromochloromethane	ND	3.8	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromomethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Dichlorodifluoromethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Ethylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Hexachlorobutadiene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Isopropylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
m&p-Xylene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	38	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	11/19/21	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	11/19/21	JLI	SW8260C
Naphthalene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
n-Butylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
n-Propylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
o-Xylene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
p-Isopropyltoluene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
sec-Butylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Styrene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
tert-Butylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrachloroethene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	11/19/21	JLI	SW8260C
Toluene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Total Xylenes	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	11/19/21	JLI	SW8260C
Trichloroethene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorofluoromethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	13	ug/Kg	1	11/19/21	JLI	SW8260C
Vinyl chloride	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C

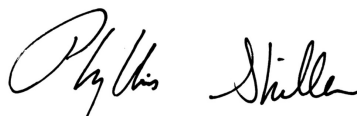
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	99		%	1	11/19/21	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	11/19/21	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	11/19/21	JLI	70 - 130 %
% Toluene-d8	99		%	1	11/19/21	JLI	70 - 130 %
<b><u>Polynuclear Aromatic HC</u></b>							
2-Methylnaphthalene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	71		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	76		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	83		%	1	11/19/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/16/21  
 11/18/21

Time

9:00  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80903

Project ID: 2021-060  
 Client ID: CMG-5, 0-2`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	11/19/21	TH	SW6010D
Arsenic	2.97	0.67	mg/Kg	1	11/19/21	TH	SW6010D
Barium	36.9	0.34	mg/Kg	1	11/19/21	TH	SW6010D
Cadmium	1.17	0.34	mg/Kg	1	11/19/21	TH	SW6010D
Chromium	8.96	0.34	mg/Kg	1	11/19/21	TH	SW6010D
Mercury	0.05	0.03	mg/Kg	2	11/19/21	AP	SW7471B
Lead	85.6	0.34	mg/Kg	1	11/19/21	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	11/19/21	TH	SW6010D
Percent Solid	95		%		11/18/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/19/21	K/AB/AB	SW7471B
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546
Total Metals Digest	Completed				11/18/21	M/AG	SW3050B

**Polynuclear Aromatic HC**

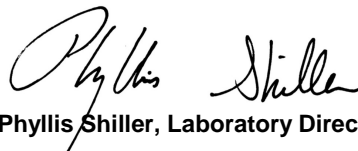
2-Methylnaphthalene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	440	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	460	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	420	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	310	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	380	240	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	480	240	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	890	240	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	340	240	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	530	240	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	790	240	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	68		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	81		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	86		%	1	11/19/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**





Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/16/21  
 11/18/21

Time

9:10  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80904

Project ID: 2021-060  
 Client ID: CMG-5, 5-7`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	11/19/21	TH	SW6010D
Arsenic	1.63	0.69	mg/Kg	1	11/19/21	TH	SW6010D
Barium	35.7	0.35	mg/Kg	1	11/19/21	TH	SW6010D
Cadmium	0.58	0.35	mg/Kg	1	11/19/21	TH	SW6010D
Chromium	5.17	0.35	mg/Kg	1	11/19/21	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	11/19/21	AP	SW7471B
Lead	26.7	0.35	mg/Kg	1	11/19/21	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	11/19/21	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Arsenic	< 0.004	0.004	mg/L	1	11/19/21	TH	SW6010D
SPLP Barium	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	11/19/21	TH	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	11/19/21	AP	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	11/19/21	TH	SW6010D
SPLP Metals Digestion	Completed				11/19/21	AB/AB	SW3010A
Percent Solid	94		%		11/18/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/19/21	K/AB/AB	SW7471B
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546
SPLP Digestion Mercury	Completed				11/19/21	AB/AB	SW1312/SW7470A
SPLP Extraction for Metals	Completed				11/18/21	AB	SW1312
SPLP Extraction for Organics	Completed				11/18/21	AB	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				11/19/21	JS/JS	SW3510C/SW3520C
Total Metals Digest	Completed				11/18/21	M/AG	SW3050B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Polynuclear Aromatic HC</u></b>							
2-Methylnaphthalene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	350	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	400	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	370	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	270	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	350	240	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	380	240	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	690	240	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	290	240	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	350	240	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	620	240	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	66		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	81		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	85		%	1	11/19/21	WB	30 - 130 %
<b><u>SPLP Semivolatiles by SIM</u></b>							
2-Methylnaphthalene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Acenaphthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Anthracene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benz(a)anthracene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.20	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Chrysene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Fluoranthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Fluorene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Naphthalene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Phenanthrene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Pyrene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	68		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	55		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	75		%	1	11/19/21	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/16/21  
 11/18/21

Time

10:15  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80905

Project ID: 2021-060  
 Client ID: CMG-5, 25-27`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	91		%		11/18/21	JS	SW846-%Solid
Field Extraction	Completed				11/16/21		SW5035A
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546

Volatiles

1,1,1,2-Tetrachloroethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	1.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloropropene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.32	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloroethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloropropane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichloropropane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
2,2-Dichloropropane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
2-Chlorotoluene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Hexanone	ND	16	ug/Kg	1	11/19/21	JLI	SW8260C
2-Isopropyltoluene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
4-Chlorotoluene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	16	ug/Kg	1	11/19/21	JLI	SW8260C
Acetone	ND	160	ug/Kg	1	11/19/21	JLI	SW8260C
Acrylonitrile	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Benzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Bromobenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Bromochloromethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Bromodichloromethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Bromoform	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Bromomethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon Disulfide	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon tetrachloride	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Chlorobenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroform	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Chloromethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromochloromethane	ND	1.9	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromomethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Dichlorodifluoromethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Ethylbenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Hexachlorobutadiene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Isopropylbenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
m&p-Xylene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	19	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	6.4	ug/Kg	1	11/19/21	JLI	SW8260C
Methylene chloride	ND	6.4	ug/Kg	1	11/19/21	JLI	SW8260C
Naphthalene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
n-Butylbenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
n-Propylbenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
o-Xylene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
p-Isopropyltoluene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
sec-Butylbenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Styrene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
tert-Butylbenzene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrachloroethene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	6.4	ug/Kg	1	11/19/21	JLI	SW8260C
Toluene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Total Xylenes	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	6.4	ug/Kg	1	11/19/21	JLI	SW8260C
Trichloroethene	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorofluoromethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	6.4	ug/Kg	1	11/19/21	JLI	SW8260C
Vinyl chloride	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C

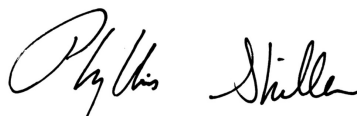
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	98		%	1	11/19/21	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	11/19/21	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	11/19/21	JLI	70 - 130 %
% Toluene-d8	99		%	1	11/19/21	JLI	70 - 130 %
<b><u>Polynuclear Aromatic HC</u></b>							
2-Methylnaphthalene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	61		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	74		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	79		%	1	11/19/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/16/21  
 11/18/21

Time

10:50  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80906

Project ID: 2021-060  
 Client ID: CMG-4, 0-2`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	0.58	0.33	mg/Kg	1	11/19/21	TH	SW6010D
Arsenic	0.76	0.67	mg/Kg	1	11/19/21	TH	SW6010D
Barium	17.3	0.33	mg/Kg	1	11/19/21	TH	SW6010D
Cadmium	0.69	0.33	mg/Kg	1	11/19/21	TH	SW6010D
Chromium	2.60	0.33	mg/Kg	1	11/19/21	TH	SW6010D
Mercury	0.92	0.03	mg/Kg	2	11/19/21	AP	SW7471B
Lead	4.15	0.33	mg/Kg	1	11/19/21	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	11/19/21	TH	SW6010D
Percent Solid	88		%		11/18/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/19/21	K/AB/AB	SW7471B
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546
Total Metals Digest	Completed				11/18/21	M/AG	SW3050B

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	290	270	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	620	270	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	4900	270	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	6500	270	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	6700	2700	ug/Kg	10	11/19/21	WB	SW8270D
Benzo(ghi)perylene	5600	270	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	5000	270	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	5900	270	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	2100	270	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	6300	270	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	6700	270	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	2900	270	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	5200	270	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	69		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	86		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	84		%	1	11/19/21	WB	30 - 130 %
% 2-Fluorobiphenyl (10x)	Diluted Out		%	10	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5 (10x)	Diluted Out		%	10	11/19/21	WB	30 - 130 %
% Terphenyl-d14 (10x)	Diluted Out		%	10	11/19/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**





Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/16/21  
 11/18/21

Time

12:50  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80907

Project ID: 2021-060  
 Client ID: CMG-4, 30-32`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	77		%		11/18/21	JS	SW846-%Solid
Field Extraction	Completed				11/16/21		SW5035A
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546

Volatiles

1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloropropene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.51	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Hexanone	ND	25	ug/Kg	1	11/19/21	JLI	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	11/19/21	JLI	SW8260C
Acetone	ND	250	ug/Kg	1	11/19/21	JLI	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Benzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Bromodichloromethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Bromoform	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon Disulfide	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroform	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
m&p-Xylene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	11/19/21	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	11/19/21	JLI	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
o-Xylene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Styrene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	11/19/21	JLI	SW8260C
Toluene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	11/19/21	JLI	SW8260C
Trichloroethene	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	10	ug/Kg	1	11/19/21	JLI	SW8260C
Vinyl chloride	ND	5.1	ug/Kg	1	11/19/21	JLI	SW8260C

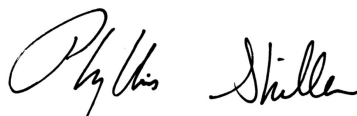
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	100		%	1	11/19/21	JLI	70 - 130 %
% Bromofluorobenzene	98		%	1	11/19/21	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	11/19/21	JLI	70 - 130 %
% Toluene-d8	99		%	1	11/19/21	JLI	70 - 130 %
<b><u>Polynuclear Aromatic HC</u></b>							
2-Methylnaphthalene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	69		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	78		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	81		%	1	11/19/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



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 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/17/21  
 11/18/21

Time

13:20  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80908

Project ID: 2021-060  
 Client ID: CMG-6, 2-4`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	11/19/21	TH	SW6010D
Arsenic	7.16	0.74	mg/Kg	1	11/19/21	TH	SW6010D
Barium	67.5	0.37	mg/Kg	1	11/19/21	TH	SW6010D
Cadmium	1.66	0.37	mg/Kg	1	11/19/21	TH	SW6010D
Chromium	57.1	0.37	mg/Kg	1	11/19/21	TH	SW6010D
Mercury	0.20	0.03	mg/Kg	2	11/19/21	AP	SW7471B
Lead	48.6	0.37	mg/Kg	1	11/19/21	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	11/19/21	TH	SW6010D
Percent Solid	86		%		11/18/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/19/21	K/AB/AB	SW7471B
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546
Total Metals Digest	Completed				11/18/21	M/AG	SW3050B

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	440	270	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	420	270	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	390	270	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	280	270	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	380	270	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	460	270	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	960	270	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D

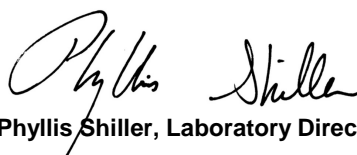
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	310	270	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	270	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	330	270	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	820	270	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	68		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	72		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	89		%	1	11/19/21	WB	30 - 130 %

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



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**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
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 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/17/21  
 11/18/21

Time

8:25  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80909

Project ID: 2021-060  
 Client ID: CMG-6, 25-27`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	81		%		11/18/21	JS	SW846-%Solid
Field Extraction	Completed				11/16/21		SW5035A
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546

Volatiles

1,1,1,2-Tetrachloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.8	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloropropene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.63	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloropropane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichloropropane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
2,2-Dichloropropane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
2-Chlorotoluene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Hexanone	ND	31	ug/Kg	1	11/19/21	JLI	SW8260C
2-Isopropyltoluene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
4-Chlorotoluene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	11/19/21	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	11/19/21	JLI	SW8260C
Acrylonitrile	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Benzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromochloromethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromodichloromethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromoform	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromomethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon Disulfide	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon tetrachloride	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chlorobenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroform	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chloromethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromochloromethane	ND	3.8	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromomethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Dichlorodifluoromethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Ethylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Hexachlorobutadiene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Isopropylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
m&p-Xylene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	38	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	11/19/21	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	11/19/21	JLI	SW8260C
Naphthalene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
n-Butylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
n-Propylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
o-Xylene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
p-Isopropyltoluene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
sec-Butylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Styrene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
tert-Butylbenzene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrachloroethene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	11/19/21	JLI	SW8260C
Toluene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Total Xylenes	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	11/19/21	JLI	SW8260C
Trichloroethene	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorofluoromethane	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	13	ug/Kg	1	11/19/21	JLI	SW8260C
Vinyl chloride	ND	6.3	ug/Kg	1	11/19/21	JLI	SW8260C

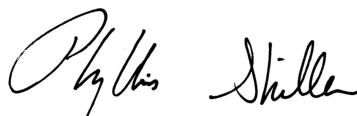
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	100		%	1	11/19/21	JLI	70 - 130 %
% Bromofluorobenzene	99		%	1	11/19/21	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	11/19/21	JLI	70 - 130 %
% Toluene-d8	100		%	1	11/19/21	JLI	70 - 130 %
<b><u>Polynuclear Aromatic HC</u></b>							
2-Methylnaphthalene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	ND	280	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	65		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	72		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	87		%	1	11/19/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**





Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/17/21  
 11/18/21

Time

9:30  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80910

Project ID: 2021-060  
 Client ID: CMG-7, 2-4`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	11/19/21	TH	SW6010D
Arsenic	2.65	0.68	mg/Kg	1	11/19/21	TH	SW6010D
Barium	51.3	0.34	mg/Kg	1	11/19/21	TH	SW6010D
Cadmium	0.99	0.34	mg/Kg	1	11/19/21	TH	SW6010D
Chromium	12.6	0.34	mg/Kg	1	11/19/21	TH	SW6010D
Mercury	0.16	0.03	mg/Kg	2	11/19/21	AP	SW7471B
Lead	68.6	0.34	mg/Kg	1	11/19/21	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	11/19/21	TH	SW6010D
Percent Solid	91		%		11/18/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/19/21	K/AB/AB	SW7471B
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546
Total Metals Digest	Completed				11/18/21	M/AG	SW3050B

Polynuclear Aromatic HC

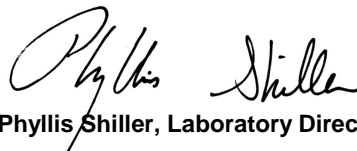
2-Methylnaphthalene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	990	260	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	1200	260	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	1400	260	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	1000	260	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	1200	260	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	1100	260	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	320	260	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	1400	260	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	1100	260	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	500	260	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	1200	260	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	73		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	85		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	86		%	1	11/19/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/17/21  
 11/18/21

Time

9:40  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80911

Project ID: 2021-060  
 Client ID: CMG-7 5-7`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	11/19/21	TH	SW6010D
Arsenic	2.81	0.72	mg/Kg	1	11/19/21	TH	SW6010D
Barium	33.4	0.36	mg/Kg	1	11/19/21	TH	SW6010D
Cadmium	0.84	0.36	mg/Kg	1	11/19/21	TH	SW6010D
Chromium	7.57	0.36	mg/Kg	1	11/19/21	TH	SW6010D
Mercury	0.17	0.03	mg/Kg	2	11/19/21	AP	SW7471B
Lead	98.5	0.36	mg/Kg	1	11/19/21	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	11/19/21	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Arsenic	0.004	0.004	mg/L	1	11/19/21	TH	SW6010D
SPLP Barium	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	11/19/21	TH	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	11/19/21	AP	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	11/19/21	TH	SW6010D
SPLP Metals Digestion	Completed				11/19/21	AB/AB	SW3010A
Percent Solid	94		%		11/18/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/19/21	K/AB/AB	SW7471B
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546
SPLP Digestion Mercury	Completed				11/19/21	AB/AB	SW1312/SW7470A
SPLP Extraction for Metals	Completed				11/18/21	AB	SW1312
SPLP Extraction for Organics	Completed				11/18/21	AB	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				11/19/21	JS/JS	SW3510C/SW3520C
Total Metals Digest	Completed				11/18/21	M/AG	SW3050B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Polynuclear Aromatic HC</u></b>							
2-Methylnaphthalene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	270	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	270	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	260	240	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	380	240	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	370	240	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	69		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	84		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	78		%	1	11/19/21	WB	30 - 130 %
<b><u>SPLP Semivolatiles by SIM</u></b>							
2-Methylnaphthalene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Acenaphthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Anthracene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benz(a)anthracene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.20	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Chrysene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Fluoranthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Fluorene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Naphthalene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Phenanthrene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Pyrene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	61		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	58		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	73		%	1	11/19/21	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/17/21  
 11/18/21

Time

9:47  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80912

Project ID: 2021-060  
 Client ID: CMG-7 10-12`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.32	0.32	mg/Kg	1	11/19/21	TH	SW6010D
Arsenic	0.90	0.65	mg/Kg	1	11/19/21	TH	SW6010D
Barium	10.4	0.32	mg/Kg	1	11/19/21	TH	SW6010D
Cadmium	0.33	0.32	mg/Kg	1	11/19/21	TH	SW6010D
Chromium	2.45	0.32	mg/Kg	1	11/19/21	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	2	11/19/21	AP	SW7471B
Lead	3.13	0.32	mg/Kg	1	11/19/21	TH	SW6010D
Selenium	< 1.3	1.3	mg/Kg	1	11/19/21	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Arsenic	< 0.004	0.004	mg/L	1	11/19/21	TH	SW6010D
SPLP Barium	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	11/19/21	TH	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	11/19/21	AP	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	11/19/21	TH	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	11/19/21	TH	SW6010D
SPLP Metals Digestion	Completed				11/19/21	AB/AB	SW3010A
Percent Solid	95		%		11/18/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/19/21	K/AB/AB	SW7471B
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546
SPLP Digestion Mercury	Completed				11/19/21	AB/AB	SW1312/SW7470A
SPLP Extraction for Metals	Completed				11/18/21	AB	SW1312
SPLP Extraction for Organics	Completed				11/18/21	AB	SW1312
SPLP Semivolatiles (SIM) Ext.	Completed				11/19/21	JS/JS	SW3510C/SW3520C
Total Metals Digest	Completed				11/18/21	M/AG	SW3050B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Polynuclear Aromatic HC</u></b>							
2-Methylnaphthalene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	ND	240	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	70		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	86		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	89		%	1	11/19/21	WB	30 - 130 %
<b><u>SPLP Semivolatiles by SIM</u></b>							
2-Methylnaphthalene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Acenaphthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Anthracene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benz(a)anthracene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.20	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Chrysene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Fluoranthene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Fluorene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Naphthalene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Phenanthrene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
Pyrene	ND	0.50	ug/L	1	11/19/21	WB	SW8270D (SIM)
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	33		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	33		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	35		%	1	11/19/21	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**





Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/17/21  
 11/18/21

Time

10:10  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80913

Project ID: 2021-060  
 Client ID: CMG-7, 25-27

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	77		%		11/18/21	JS	SW846-%Solid
Field Extraction	Completed				11/16/21		SW5035A
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546

Volatiles

1,1,1,2-Tetrachloroethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.1	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloropropene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.69	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloroethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloropropane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichloropropane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
2,2-Dichloropropane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
2-Chlorotoluene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Hexanone	ND	34	ug/Kg	1	11/19/21	JLI	SW8260C
2-Isopropyltoluene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
4-Chlorotoluene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	34	ug/Kg	1	11/19/21	JLI	SW8260C
Acetone	ND	340	ug/Kg	1	11/19/21	JLI	SW8260C
Acrylonitrile	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Benzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Bromobenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Bromochloromethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Bromodichloromethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Bromoform	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Bromomethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon Disulfide	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon tetrachloride	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Chlorobenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroform	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Chloromethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromochloromethane	ND	4.1	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromomethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Dichlorodifluoromethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Ethylbenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Hexachlorobutadiene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Isopropylbenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
m&p-Xylene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	41	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	11/19/21	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	11/19/21	JLI	SW8260C
Naphthalene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
n-Butylbenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
n-Propylbenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
o-Xylene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
p-Isopropyltoluene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
sec-Butylbenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Styrene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
tert-Butylbenzene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrachloroethene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	11/19/21	JLI	SW8260C
Toluene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Total Xylenes	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	11/19/21	JLI	SW8260C
Trichloroethene	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorofluoromethane	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	14	ug/Kg	1	11/19/21	JLI	SW8260C
Vinyl chloride	ND	6.9	ug/Kg	1	11/19/21	JLI	SW8260C

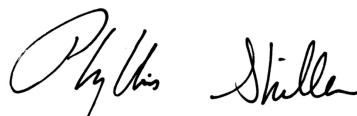
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	100		%	1	11/19/21	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	11/19/21	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	11/19/21	JLI	70 - 130 %
% Toluene-d8	99		%	1	11/19/21	JLI	70 - 130 %
<b><u>Polynuclear Aromatic HC</u></b>							
2-Methylnaphthalene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	ND	300	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	68		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	84		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	87		%	1	11/19/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



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 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/17/21  
 11/18/21

Time

11:30  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80914

Project ID: 2021-060  
 Client ID: CMG-8, 2-4`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	11/19/21	TH	SW6010D
Arsenic	2.53	0.77	mg/Kg	1	11/19/21	TH	SW6010D
Barium	29.8	0.38	mg/Kg	1	11/19/21	TH	SW6010D
Cadmium	0.75	0.38	mg/Kg	1	11/19/21	TH	SW6010D
Chromium	11.1	0.38	mg/Kg	1	11/19/21	TH	SW6010D
Mercury	0.07	0.03	mg/Kg	2	11/19/21	AP	SW7471B
Lead	105	0.38	mg/Kg	1	11/19/21	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	11/19/21	TH	SW6010D
Percent Solid	93		%		11/18/21	JS	SW846-%Solid
Mercury Digestion	Completed				11/19/21	K/AB/AB	SW7471B
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546
Total Metals Digest	Completed				11/18/21	M/AG	SW3050B

Polynuclear Aromatic HC

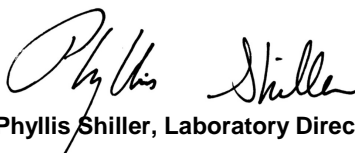
2-Methylnaphthalene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	490	250	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	490	250	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	500	250	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	300	250	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	440	250	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	510	250	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	1000	250	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Indeno(1,2,3-cd)pyrene	370	250	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	760	250	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	850	250	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	67		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	83		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	80		%	1	11/19/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.  
If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 November 22, 2021

FOR: Attn: Mr. Gary Magnuson  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: SOIL  
 Location Code: CMGENV  
 Rush Request: 24 Hour  
 P.O.#: 777 CRANSTON

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/17/21  
 11/18/21

Time

12:15  
 12:56

Laboratory Data

SDG ID: GCJ80902  
 Phoenix ID: CJ80915

Project ID: 2021-060  
 Client ID: CMG-8, 20-22`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Percent Solid	87		%		11/18/21	JS	SW846-%Solid
Field Extraction	Completed				11/16/21		SW5035A
Soil Extraction for SVOA PAH	Completed				11/18/21	R/L	SW3546

Volatiles

1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloroethene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,1-Dichloropropene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dibromoethane	ND	0.53	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloroethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,2-Dichloropropane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,3-Dichloropropane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
2,2-Dichloropropane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
2-Chlorotoluene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2-Hexanone	ND	27	ug/Kg	1	11/19/21	JLI	SW8260C
2-Isopropyltoluene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
4-Chlorotoluene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/Kg	1	11/19/21	JLI	SW8260C
Acetone	ND	270	ug/Kg	1	11/19/21	JLI	SW8260C
Acrylonitrile	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Benzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromobenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromochloromethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromodichloromethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromoform	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Bromomethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon Disulfide	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Carbon tetrachloride	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chlorobenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chloroform	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Chloromethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromochloromethane	ND	3.2	ug/Kg	1	11/19/21	JLI	SW8260C
Dibromomethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Dichlorodifluoromethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Ethylbenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Hexachlorobutadiene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Isopropylbenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
m&p-Xylene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl Ethyl Ketone	ND	32	ug/Kg	1	11/19/21	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	11/19/21	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	11/19/21	JLI	SW8260C
Naphthalene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
n-Butylbenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
n-Propylbenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
o-Xylene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
p-Isopropyltoluene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
sec-Butylbenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Styrene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
tert-Butylbenzene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrachloroethene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	11/19/21	JLI	SW8260C
Toluene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Total Xylenes	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	11/19/21	JLI	SW8260C
Trichloroethene	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorofluoromethane	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C
Trichlorotrifluoroethane	ND	11	ug/Kg	1	11/19/21	JLI	SW8260C
Vinyl chloride	ND	5.3	ug/Kg	1	11/19/21	JLI	SW8260C

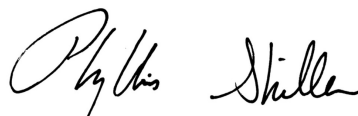
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	99		%	1	11/19/21	JLI	70 - 130 %
% Bromofluorobenzene	92		%	1	11/19/21	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	11/19/21	JLI	70 - 130 %
% Toluene-d8	98		%	1	11/19/21	JLI	70 - 130 %
<b><u>Polynuclear Aromatic HC</u></b>							
2-Methylnaphthalene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Chrysene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Fluoranthene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Phenanthrene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
Pyrene	ND	260	ug/Kg	1	11/19/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2-Fluorobiphenyl	71		%	1	11/19/21	WB	30 - 130 %
% Nitrobenzene-d5	87		%	1	11/19/21	WB	30 - 130 %
% Terphenyl-d14	88		%	1	11/19/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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**Phyllis Shiller, Laboratory Director**

**November 22, 2021**

**Reviewed and Released by: Rashmi Makol, Project Manager**





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# QA/QC Report

November 22, 2021

## QA/QC Data

SDG I.D.: GCJ80902

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 601427 (mg/kg), QC Sample No: CJ80628 2X (CJ80903, CJ80904, CJ80906, CJ80908, CJ80910, CJ80911, CJ80912, CJ80914)

Mercury - Soil	BRL	0.02	1.26	1.82	36.4	120	110	8.7	NC	NC	NC	70 - 130	30
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Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 601429 (mg/L), QC Sample No: CJ80970 (CJ80904, CJ80911, CJ80912)

Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	92.5			94.7			80 - 120	20
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Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 601348 (mg/kg), QC Sample No: CJ80038 (CJ80903, CJ80904, CJ80906, CJ80908, CJ80910, CJ80911, CJ80912, CJ80914)

### ICP Metals - Soil

Arsenic	BRL	0.67	4.83	4.84	0.20	94.5	98.0	3.6	95.5			75 - 125	35
Barium	BRL	0.33	47.4	52.3	9.80	97.1	99.1	2.0	106			75 - 125	35
Cadmium	BRL	0.33	1.25	1.26	NC	93.1	92.1	1.1	94.3			75 - 125	35
Chromium	BRL	0.33	19.3	18.0	7.00	87.1	87.6	0.6	96.1			75 - 125	35
Lead	BRL	0.33	21.6	25.8	17.7	91.6	102	10.7	99.2			75 - 125	35
Selenium	BRL	1.3	<1.5	<1.7	NC	95.6	95.9	0.3	88.8			75 - 125	35
Silver	BRL	0.33	<0.39	<0.43	NC	83.1	85.3	2.6	92.3			75 - 125	35

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

QA/QC Batch 601431 (mg/L), QC Sample No: CJ80924 (CJ80904, CJ80911, CJ80912)

### ICP Metals - SPLP Extraction

Arsenic	BRL	0.004	0.005	<0.004	NC	99.6	93.4	6.4	107			80 - 120	20
Barium	BRL	0.010	0.017	0.018	NC	101	97.1	3.9	103			80 - 120	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	97.2	89.6	8.1	100			80 - 120	20
Chromium	BRL	0.010	<0.010	<0.010	NC	98.4	93.6	5.0	102			80 - 120	20
Lead	BRL	0.010	0.038	0.037	NC	102	95.4	6.7	104			80 - 120	20
Selenium	BRL	0.020	<0.020	<0.020	NC	99.6	93.6	6.2	105			80 - 120	20
Silver	BRL	0.010	<0.010	<0.010	NC	95.5	97.1	1.7	101			80 - 120	20

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

r = This parameter is outside laboratory RPD specified recovery limits.



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# QA/QC Report

November 22, 2021

## QA/QC Data

SDG I.D.: GCJ80902

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 601347 (ug/kg), QC Sample No: CJ80890 (CJ80902, CJ80903, CJ80904, CJ80905, CJ80906, CJ80907, CJ80908, CJ80909, CJ80910, CJ80911, CJ80912, CJ80913, CJ80914, CJ80915)										
<b>Polynuclear Aromatic HC - Soil</b>										
2-Methylnaphthalene	ND	230	77	63	20.0	72	75	4.1	40 - 140	30
Acenaphthene	ND	230	78	67	15.2	72	83	14.2	30 - 130	30
Acenaphthylene	ND	230	74	65	12.9	53	66	21.8	40 - 140	30
Anthracene	ND	230	80	69	14.8	73	84	14.0	40 - 140	30
Benz(a)anthracene	ND	230	83	71	15.6	98	92	6.3	40 - 140	30
Benzo(a)pyrene	ND	230	82	70	15.8	83	86	3.6	40 - 140	30
Benzo(b)fluoranthene	ND	230	82	71	14.4	100	88	12.8	40 - 140	30
Benzo(ghi)perylene	ND	230	81	70	14.6	81	80	1.2	40 - 140	30
Benzo(k)fluoranthene	ND	230	75	67	11.3	69	80	14.8	40 - 140	30
Chrysene	ND	230	81	70	14.6	96	93	3.2	40 - 140	30
Dibenz(a,h)anthracene	ND	230	87	77	12.2	77	95	20.9	40 - 140	30
Fluoranthene	ND	230	82	68	18.7	138	101	31.0	40 - 140	30 r
Fluorene	ND	230	80	71	11.9	74	90	19.5	40 - 140	30
Indeno(1,2,3-cd)pyrene	ND	230	89	77	14.5	84	85	1.2	40 - 140	30
Naphthalene	ND	230	70	56	22.2	70	67	4.4	40 - 140	30
Phenanthrene	ND	230	79	67	16.4	91	89	2.2	40 - 140	30
Pyrene	ND	230	78	66	16.7	157	101	43.4	30 - 130	30 m,r
% 2-Fluorobiphenyl	73	%	68	60	12.5	59	67	12.7	30 - 130	30
% Nitrobenzene-d5	78	%	82	63	26.2	73	78	6.6	30 - 130	30
% Terphenyl-d14	82	%	87	74	16.1	71	88	21.4	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 601425 (ug/L), QC Sample No: CJ80904 (CJ80904, CJ80911, CJ80912)

### Semivolatiles by SIM, PAH - SPLP

2-Methylnaphthalene	ND	0.50	50	50	0.0				30 - 130	20
Acenaphthene	ND	0.50	68	69	1.5				30 - 130	20
Acenaphthylene	ND	0.50	58	59	1.7				30 - 130	20
Anthracene	ND	0.50	70	71	1.4				30 - 130	20
Benz(a)anthracene	ND	0.50	62	65	4.7				30 - 130	20
Benzo(a)pyrene	ND	0.20	70	74	5.6				30 - 130	20
Benzo(b)fluoranthene	ND	0.50	78	79	1.3				30 - 130	20
Benzo(ghi)perylene	ND	0.50	79	88	10.8				30 - 130	20
Benzo(k)fluoranthene	ND	0.50	90	88	2.2				30 - 130	20
Chrysene	ND	0.50	75	75	0.0				30 - 130	20
Dibenz(a,h)anthracene	ND	0.50	83	97	15.6				30 - 130	20
Fluoranthene	ND	0.50	77	81	5.1				30 - 130	20
Fluorene	ND	0.50	63	66	4.7				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.50	77	87	12.2				30 - 130	20
Naphthalene	ND	0.50	58	59	1.7				30 - 130	20

## QA/QC Data

SDG I.D.: GCJ80902

Parameter	BIK		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Phenanthrene	ND	0.50	79	81	2.5				30 - 130	20
Pyrene	ND	0.50	83	88	5.8				30 - 130	20
% 2-Fluorobiphenyl	62	%	64	64	0.0				30 - 130	20
% Nitrobenzene-d5	47	%	55	59	7.0				30 - 130	20
% Terphenyl-d14	80	%	65	68	4.5				30 - 130	20

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 601710 (ug/kg), QC Sample No: CJ80503 (CJ80902, CJ80905, CJ80907, CJ80909, CJ80913)

### Volatiles - Soil (Low Level)

1,1,1,2-Tetrachloroethane	ND	5.0	117	116	0.9	111	104	6.5	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	114	111	2.7	104	99	4.9	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	110	104	5.6	102	88	14.7	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	108	104	3.8	104	96	8.0	70 - 130	30
1,1-Dichloroethane	ND	5.0	112	109	2.7	104	99	4.9	70 - 130	30
1,1-Dichloroethene	ND	5.0	116	112	3.5	104	99	4.9	70 - 130	30
1,1-Dichloropropene	ND	5.0	112	113	0.9	105	100	4.9	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	117	113	3.5	78	72	8.0	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	106	99	6.8	103	97	6.0	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	117	114	2.6	74	70	5.6	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	111	109	1.8	104	89	15.5	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	119	116	2.6	110	95	14.6	70 - 130	30
1,2-Dibromoethane	ND	5.0	111	108	2.7	101	95	6.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	109	107	1.9	97	85	13.2	70 - 130	30
1,2-Dichloroethane	ND	5.0	109	107	1.9	104	97	7.0	70 - 130	30
1,2-Dichloropropane	ND	5.0	110	109	0.9	106	100	5.8	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	112	110	1.8	108	92	16.0	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	110	107	2.8	94	82	13.6	70 - 130	30
1,3-Dichloropropane	ND	5.0	111	107	3.7	105	97	7.9	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	110	107	2.8	91	80	12.9	70 - 130	30
2,2-Dichloropropane	ND	5.0	115	119	3.4	108	103	4.7	70 - 130	30
2-Chlorotoluene	ND	5.0	112	112	0.0	106	91	15.2	70 - 130	30
2-Hexanone	ND	25	113	104	8.3	103	94	9.1	70 - 130	30
2-Isopropyltoluene	ND	5.0	111	108	2.7	106	91	15.2	70 - 130	30
4-Chlorotoluene	ND	5.0	113	111	1.8	101	86	16.0	70 - 130	30
4-Methyl-2-pentanone	ND	25	116	106	9.0	106	101	4.8	70 - 130	30
Acetone	ND	10	116	106	9.0	111	104	6.5	70 - 130	30
Acrylonitrile	ND	5.0	112	103	8.4	97	91	6.4	70 - 130	30
Benzene	ND	1.0	110	109	0.9	104	99	4.9	70 - 130	30
Bromobenzene	ND	5.0	110	107	2.8	102	88	14.7	70 - 130	30
Bromochloromethane	ND	5.0	116	111	4.4	105	101	3.9	70 - 130	30
Bromodichloromethane	ND	5.0	112	110	1.8	105	100	4.9	70 - 130	30
Bromoform	ND	5.0	122	116	5.0	106	101	4.8	70 - 130	30
Bromomethane	ND	5.0	117	110	6.2	107	107	0.0	70 - 130	30
Carbon Disulfide	ND	5.0	110	107	2.8	90	86	4.5	70 - 130	30
Carbon tetrachloride	ND	5.0	116	115	0.9	104	101	2.9	70 - 130	30
Chlorobenzene	ND	5.0	109	108	0.9	101	93	8.2	70 - 130	30
Chloroethane	ND	5.0	114	120	5.1	105	99	5.9	70 - 130	30
Chloroform	ND	5.0	114	110	3.6	106	100	5.8	70 - 130	30
Chloromethane	ND	5.0	111	109	1.8	101	95	6.1	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	106	109	2.8	103	97	6.0	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	115	112	2.6	106	99	6.8	70 - 130	30

QA/QC Data

SDG I.D.: GCJ80902

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Dibromochloromethane	ND	3.0	116	114	1.7	109	102	6.6	70 - 130	30
Dibromomethane	ND	5.0	111	107	3.7	104	97	7.0	70 - 130	30
Dichlorodifluoromethane	ND	5.0	114	108	5.4	97	92	5.3	70 - 130	30
Ethylbenzene	ND	1.0	114	112	1.8	105	97	7.9	70 - 130	30
Hexachlorobutadiene	ND	5.0	116	111	4.4	86	71	19.1	70 - 130	30
Isopropylbenzene	ND	1.0	113	111	1.8	111	96	14.5	70 - 130	30
m&p-Xylene	ND	2.0	114	112	1.8	105	96	9.0	70 - 130	30
Methyl ethyl ketone	ND	5.0	106	100	5.8	94	86	8.9	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	111	104	6.5	104	96	8.0	70 - 130	30
Methylene chloride	ND	5.0	96	93	3.2	94	89	5.5	70 - 130	30
Naphthalene	ND	5.0	119	113	5.2	83	77	7.5	70 - 130	30
n-Butylbenzene	ND	1.0	117	115	1.7	91	81	11.6	70 - 130	30
n-Propylbenzene	ND	1.0	116	113	2.6	106	91	15.2	70 - 130	30
o-Xylene	ND	2.0	111	109	1.8	105	96	9.0	70 - 130	30
p-Isopropyltoluene	ND	1.0	115	113	1.8	104	90	14.4	70 - 130	30
sec-Butylbenzene	ND	1.0	114	111	2.7	105	90	15.4	70 - 130	30
Styrene	ND	5.0	97	95	2.1	84	78	7.4	70 - 130	30
tert-Butylbenzene	ND	1.0	112	110	1.8	110	94	15.7	70 - 130	30
Tetrachloroethene	ND	5.0	110	108	1.8	102	95	7.1	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	110	101	8.5	98	92	6.3	70 - 130	30
Toluene	ND	1.0	110	108	1.8	104	98	5.9	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	116	111	4.4	98	93	5.2	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	121	116	4.2	104	98	5.9	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	132	125	5.4	113	96	16.3	70 - 130	30
Trichloroethene	ND	5.0	110	108	1.8	106	101	4.8	70 - 130	30
Trichlorofluoromethane	ND	5.0	119	114	4.3	105	100	4.9	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	105	104	1.0	96	91	5.3	70 - 130	30
Vinyl chloride	ND	5.0	119	113	5.2	103	100	3.0	70 - 130	30
% 1,2-dichlorobenzene-d4	99	%	100	100	0.0	102	101	1.0	70 - 130	30
% Bromofluorobenzene	98	%	100	101	1.0	98	102	4.0	70 - 130	30
% Dibromofluoromethane	101	%	102	100	2.0	99	98	1.0	70 - 130	30
% Toluene-d8	99	%	100	98	2.0	100	101	1.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 601708 (ug/kg), QC Sample No: CJ81300 (CJ80915)

Volatiles - Soil (Low Level)

1,1,1,2-Tetrachloroethane	ND	5.0	117	115	1.7	112	114	1.8	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	104	102	1.9	98	98	0.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	104	97	7.0	90	86	4.5	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	105	100	4.9	106	104	1.9	70 - 130	30
1,1-Dichloroethane	ND	5.0	106	104	1.9	99	100	1.0	70 - 130	30
1,1-Dichloroethene	ND	5.0	107	105	1.9	93	92	1.1	70 - 130	30
1,1-Dichloropropene	ND	5.0	108	103	4.7	105	103	1.9	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	106	102	3.8	104	102	1.9	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	104	97	7.0	102	100	2.0	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	107	103	3.8	104	102	1.9	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	104	101	2.9	83	82	1.2	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	104	97	7.0	102	102	0.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	106	102	3.8	107	105	1.9	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	105	101	3.9	102	102	0.0	70 - 130	30
1,2-Dichloroethane	ND	5.0	104	99	4.9	99	98	1.0	70 - 130	30

## QA/QC Data

SDG I.D.: GCJ80902

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
1,2-Dichloropropane	ND	5.0	102	99	3.0	100	98	2.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	104	102	1.9	97	95	2.1	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	105	101	3.9	104	103	1.0	70 - 130	30
1,3-Dichloropropane	ND	5.0	109	105	3.7	107	106	0.9	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	105	102	2.9	104	102	1.9	70 - 130	30
2,2-Dichloropropane	ND	5.0	92	89	3.3	80	80	0.0	70 - 130	30
2-Chlorotoluene	ND	5.0	106	103	2.9	107	107	0.0	70 - 130	30
2-Hexanone	ND	25	91	85	6.8	91	87	4.5	70 - 130	30
2-Isopropyltoluene	ND	5.0	105	102	2.9	101	100	1.0	70 - 130	30
4-Chlorotoluene	ND	5.0	107	103	3.8	107	106	0.9	70 - 130	30
4-Methyl-2-pentanone	ND	25	98	89	9.6	95	90	5.4	70 - 130	30
Acetone	ND	10	90	86	4.5	92	84	9.1	70 - 130	30
Acrylonitrile	ND	5.0	101	94	7.2	95	93	2.1	70 - 130	30
Benzene	ND	1.0	105	102	2.9	97	97	0.0	70 - 130	30
Bromobenzene	ND	5.0	104	100	3.9	107	107	0.0	70 - 130	30
Bromochloromethane	ND	5.0	108	105	2.8	106	105	0.9	70 - 130	30
Bromodichloromethane	ND	5.0	108	104	3.8	103	103	0.0	70 - 130	30
Bromoform	ND	5.0	119	114	4.3	112	112	0.0	70 - 130	30
Bromomethane	ND	5.0	114	113	0.9	98	98	0.0	70 - 130	30
Carbon Disulfide	ND	5.0	101	99	2.0	82	84	2.4	70 - 130	30
Carbon tetrachloride	ND	5.0	115	112	2.6	104	105	1.0	70 - 130	30
Chlorobenzene	ND	5.0	109	107	1.9	108	107	0.9	70 - 130	30
Chloroethane	ND	5.0	110	110	0.0	92	94	2.2	70 - 130	30
Chloroform	ND	5.0	107	104	2.8	100	100	0.0	70 - 130	30
Chloromethane	ND	5.0	102	100	2.0	92	92	0.0	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	110	108	1.8	107	108	0.9	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	103	99	4.0	98	98	0.0	70 - 130	30
Dibromochloromethane	ND	3.0	115	112	2.6	112	112	0.0	70 - 130	30
Dibromomethane	ND	5.0	107	101	5.8	105	103	1.9	70 - 130	30
Dichlorodifluoromethane	ND	5.0	114	108	5.4	101	98	3.0	70 - 130	30
Ethylbenzene	ND	1.0	110	109	0.9	98	97	1.0	70 - 130	30
Hexachlorobutadiene	ND	5.0	102	99	3.0	84	78	7.4	70 - 130	30
Isopropylbenzene	ND	1.0	104	102	1.9	104	103	1.0	70 - 130	30
m&p-Xylene	ND	2.0	109	108	0.9	98	98	0.0	70 - 130	30
Methyl ethyl ketone	ND	5.0	95	91	4.3	86	86	0.0	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	92	88	4.4	84	82	2.4	70 - 130	30
Methylene chloride	ND	5.0	90	88	2.2	80	80	0.0	70 - 130	30
Naphthalene	ND	5.0	102	97	5.0	96	96	0.0	70 - 130	30
n-Butylbenzene	ND	1.0	111	107	3.7	96	93	3.2	70 - 130	30
n-Propylbenzene	ND	1.0	107	103	3.8	98	97	1.0	70 - 130	30
o-Xylene	ND	2.0	106	103	2.9	97	98	1.0	70 - 130	30
p-Isopropyltoluene	ND	1.0	106	103	2.9	101	99	2.0	70 - 130	30
sec-Butylbenzene	ND	1.0	108	105	2.8	100	99	1.0	70 - 130	30
Styrene	ND	5.0	106	103	2.9	105	103	1.9	70 - 130	30
tert-Butylbenzene	ND	1.0	105	102	2.9	102	101	1.0	70 - 130	30
Tetrachloroethene	ND	5.0	107	102	4.8	105	104	1.0	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	98	92	6.3	89	86	3.4	70 - 130	30
Toluene	ND	1.0	106	102	3.8	99	98	1.0	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	105	103	1.9	94	93	1.1	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	104	99	4.9	96	96	0.0	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	107	100	6.8	96	94	2.1	70 - 130	30
Trichloroethene	ND	5.0	107	104	2.8	119	120	0.8	70 - 130	30
Trichlorofluoromethane	ND	5.0	125	121	3.3	103	104	1.0	70 - 130	30

QA/QC Data

SDG I.D.: GCJ80902

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Trichlorotrifluoroethane	ND	5.0	102	99	3.0	91	90	1.1	70 - 130	30
Vinyl chloride	ND	5.0	109	107	1.9	92	92	0.0	70 - 130	30
% 1,2-dichlorobenzene-d4	100	%	99	98	1.0	98	98	0.0	70 - 130	30
% Bromofluorobenzene	93	%	99	99	0.0	97	96	1.0	70 - 130	30
% Dibromofluoromethane	98	%	99	97	2.0	97	95	2.1	70 - 130	30
% Toluene-d8	98	%	99	98	1.0	98	98	0.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

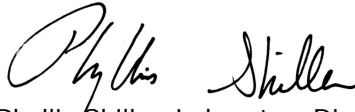
l = This parameter is outside laboratory LCS/LCSD specified recovery limits.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference

  
 Phyllis Shiller, Laboratory Director  
 November 22, 2021

**Sample Criteria Exceedances Report****GCJ80902 - CMGENV**

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CJ80903	\$8100SMR	Chrysene	RI / Direct Exposure Criteria / Semivolatiles (Res)	480	240	400	400	ug/Kg
CJ80903	\$8100SMR	Benzo(a)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	460	240	400	400	ug/Kg
CJ80906	\$8100SMR	Indeno(1,2,3-cd)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	6700	270	900	900	ug/Kg
CJ80906	\$8100SMR	Benz(a)anthracene	RI / Direct Exposure Criteria / Semivolatiles (Res)	4900	270	900	900	ug/Kg
CJ80906	\$8100SMR	Benzo(a)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	6500	270	400	400	ug/Kg
CJ80906	\$8100SMR	Benzo(b)fluoranthene	RI / Direct Exposure Criteria / Semivolatiles (Res)	6700	2700	900	900	ug/Kg
CJ80906	\$8100SMR	Benzo(ghi)perylene	RI / Direct Exposure Criteria / Semivolatiles (Res)	5600	270	800	800	ug/Kg
CJ80906	\$8100SMR	Benzo(k)fluoranthene	RI / Direct Exposure Criteria / Semivolatiles (Res)	5000	270	900	900	ug/Kg
CJ80906	\$8100SMR	Chrysene	RI / Direct Exposure Criteria / Semivolatiles (Res)	5900	270	400	400	ug/Kg
CJ80906	\$8100SMR	Dibenz(a,h)anthracene	RI / Direct Exposure Criteria / Semivolatiles (Res)	2100	270	400	400	ug/Kg
CJ80908	\$8100SMR	Chrysene	RI / Direct Exposure Criteria / Semivolatiles (Res)	460	270	400	400	ug/Kg
CJ80908	\$8100SMR	Benzo(a)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	420	270	400	400	ug/Kg
CJ80908	AS-SM	Arsenic	RI / Direct Exposure Criteria / Inorganics (Res)	7.16	0.74	7	7	mg/Kg
CJ80910	\$8100SMR	Benz(a)anthracene	RI / Direct Exposure Criteria / Semivolatiles (Res)	990	260	900	900	ug/Kg
CJ80910	\$8100SMR	Benzo(a)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1200	260	400	400	ug/Kg
CJ80910	\$8100SMR	Benzo(b)fluoranthene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1400	260	900	900	ug/Kg
CJ80910	\$8100SMR	Benzo(ghi)perylene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1000	260	800	800	ug/Kg
CJ80910	\$8100SMR	Benzo(k)fluoranthene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1200	260	900	900	ug/Kg
CJ80910	\$8100SMR	Chrysene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1100	260	400	400	ug/Kg
CJ80910	\$8100SMR	Indeno(1,2,3-cd)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	1100	260	900	900	ug/Kg
CJ80914	\$8100SMR	Chrysene	RI / Direct Exposure Criteria / Semivolatiles (Res)	510	250	400	400	ug/Kg
CJ80914	\$8100SMR	Benzo(a)pyrene	RI / Direct Exposure Criteria / Semivolatiles (Res)	490	250	400	400	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedances. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedance information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Comments

November 22, 2021

SDG I.D.: GCJ80902

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The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

### **VOA Narration**

#### **CHEM03 11/19/21-1:** CJ80915

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 24% (20%), Chloroethane 24% (20%)

The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: Acetone 0.066 (0.1), Tetrachloroethene 0.162 (0.2)

The following Initial Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

#### **CHEM31 11/19/21-1:** CJ80902, CJ80905, CJ80907, CJ80909, CJ80913

The following Initial Calibration compounds did not meet RSD% criteria: 1,2-Dibromo-3-chloropropane 26% (20%), Bromoform 24% (20%),

Chloroethane 23% (20%), Styrene 21% (20%), trans-1,4-dichloro-2-butene 31% (20%)

The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: Acetone 0.076 (0.1), Bromoform 0.095 (0.1),

Tetrachloroethene 0.175 (0.2)

The following Initial Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.





**CHAIN OF CUSTODY RECORD**

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040  
 Email: info@phoenixlabs.com Fax (860) 645-0823  
**Client Services (860) 645-8726**

Coolant:  Ice  No  
 PC  No  
 Temp \_\_\_\_\_ Pg 1 of 2  
**Data Delivery/Contact Options:**  
 Fax: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email:

Customer: CMG  
 Address: Leitchfield Rd  
Sturbridge, MA  
 Project: 2021-060  
 Report to: CMG  
 Invoice to: CMG  
 QUOTE # \_\_\_\_\_

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
80902	CMG-3, 30-32	S	11/10/21	7:30
80903	CMG-502'			9:00
80904	CMG-5, 57'			9:10
80905	CMG-5, 25-27'			10:15
80906	CMG-4, 0-2'			10:50
80907	CMG-4, 30-32'			12:50
80908	CMG-6, 2-4'		11/17/21	1:20
80909	CMG-6, 25-27'			8:25
80910	CMG-7, 2-4'			9:30
80911	CMG-7, 5-7'			9:40
80912	CMG-7, 10-12'			9:47
80913	CMG-7, 25-27'			10:10

Analysis Request	MA	CI	RI	Time	Date	Accepted by:
MS/MSD * GL Amber 8 oz w/30PC GL Soil container (4) oz GL Amber 1000ml Jar w/ 1HCL GL Amber 1250ml Jar w/ 1H2SO4 GL Amber 1000ml Jar w/ 1H2O GL Amber 1250ml Jar w/ 1H2O GL Amber 250ml Jar w/ 1H2O GL Amber 250ml Jar w/ 1H2O GL Amber 250ml Jar w/ 1H2O GL Amber 250ml Jar w/ 1H2O	<input type="checkbox"/> MCP Certification <input type="checkbox"/> MWRA eSMART <input type="checkbox"/> S-1 10% CALC <input type="checkbox"/> S-1 GW-1 <input type="checkbox"/> S-1 GW-2 <input type="checkbox"/> S-1 GW-3 <input type="checkbox"/> S-2 GW-1 <input type="checkbox"/> S-2 GW-2 <input type="checkbox"/> S-2 GW-3 <input type="checkbox"/> S-3 GW-1 <input type="checkbox"/> S-3 GW-2 <input type="checkbox"/> S-3 GW-3 <input type="checkbox"/> SW Protection	<input type="checkbox"/> RCP Cert <input type="checkbox"/> GW Protection <input type="checkbox"/> SW Protection <input type="checkbox"/> GA Mobility <input type="checkbox"/> GB Mobility <input type="checkbox"/> Residential DEC <input type="checkbox"/> I/C DEC <input type="checkbox"/> Other	<input checked="" type="checkbox"/> (Residential) Direct Exposure <input type="checkbox"/> (Comm/Industrial) Direct Exposure <input type="checkbox"/> GA Leachability <input type="checkbox"/> GB Leachability <input type="checkbox"/> GA-GW Objectives <input type="checkbox"/> GB-GW Objectives	11-18-21 1056 11-18 1250	11-18-21 1056 11-18 1250	<u>he Rastay</u> <u>Rastay</u>

Turnaround Time:  
 1 Day\*  
 2 Days\*  
 3 Days\*  
 Standard  
 Other

Comments, Special Requirements or Regulations:

\*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.

State where samples were collected: RI

\* SURCHARGE APPLIES

This section MUST be completed with Bottle Quantities.





Wednesday, December 01, 2021

Attn: Mr. Steve Van Wormer  
CMG Environmental, Inc.  
67 Hall Rd  
Sturbridge, MA 01566

Project ID: 2021-060  
SDG ID: GCJ83206  
Sample ID#s: CJ83206 - CJ83213

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller  
Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

## Sample Id Cross Reference

December 01, 2021

SDG I.D.: GCJ83206

Project ID: 2021-060

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Client Id	Lab Id	Matrix
CMG-1	CJ83206	GROUND WATER
CMG-2	CJ83207	GROUND WATER
CMG-3	CJ83208	GROUND WATER
CMG-4	CJ83209	GROUND WATER
CMG-5	CJ83210	GROUND WATER
CMG-6	CJ83211	GROUND WATER
CMG-7	CJ83212	GROUND WATER
CMG-8	CJ83213	GROUND WATER



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 December 01, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: GROUND WATER  
 Location Code: CMGENV  
 Rush Request: 48 Hour  
 P.O.#: CRANSTON RI

Custody Information

Collected by: SV  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/19/21  
 11/22/21

Time

8:30  
 11:52

Laboratory Data

SDG ID: GCJ83206  
 Phoenix ID: CJ83206

Project ID: 2021-060  
 Client ID: CMG-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/23/21	EK	SW6010D
Barium (Dissolved)	0.038	0.002	mg/L	1	11/23/21	EK	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/23/21	AP	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/23/21	EK	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/23/21	EK	SW6010D
Filtration	Completed				11/22/21	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/23/21	AB/AB	SW7470A
Semi-Volatile Extraction	Completed				11/22/21	J/K	SW3520C
Dissolved Metals Preparation	Completed				11/22/21	AG	SW3005A
Extraction of TPH	Completed				11/22/21	J/K	SW3510C/SW3520C

**TPH by GC (Extractable Products)**

Aviation Fuel/Kerosene	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #2/ Diesel Fuel	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #4	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #6	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Motor Oil	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Total TPH	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Unidentified	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO

**QA/QC Surrogates**

% Terphenyl (surr)	81		%	1	11/23/21	JRB	50 - 150 %
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**Volatiles**

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Acetone	ND	25	ug/L	1	11/24/21	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/24/21	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/24/21	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	99		%	1	11/24/21	MH	70 - 130 %
% Bromofluorobenzene	93		%	1	11/24/21	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	11/24/21	MH	70 - 130 %
% Toluene-d8	97		%	1	11/24/21	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	3.4	ug/L	1	11/24/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
2,4-Dichlorophenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
2,4-Dimethylphenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrophenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2-Chlorophenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2-Nitrophenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.6	ug/L	1	11/24/21	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4-Nitrophenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
Acetophenone	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Aniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Benzidine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Benzoic acid	ND	48	ug/L	1	11/24/21	WB	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
Carbazole	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Dibenzofuran	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Hexachloroethane	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
Isophorone	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
Phenol	ND	0.96	ug/L	1	11/24/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	96		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	53		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	35		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	46		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	47		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	86		%	1	11/24/21	WB	30 - 130 %
<b><u>Semivolatiles (SIM)</u></b>							
2-Methylnaphthalene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Anthracene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benz(a)anthracene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.19	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Chrysene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluoranthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluorene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorobenzene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)



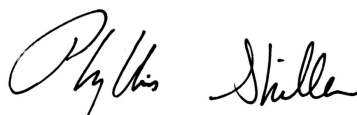
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobutadiene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Naphthalene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Nitrobenzene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
N-Nitrosodimethylamine	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pentachlorophenol	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Phenanthrene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyrene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	94		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	58		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	36		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	54		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	44		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	65		%	1	11/24/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**December 01, 2021**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 December 01, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: GROUND WATER  
 Location Code: CMGENV  
 Rush Request: 48 Hour  
 P.O.#: CRANSTON RI

Custody Information

Collected by: SV  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/19/21  
 11/22/21

Time

9:45  
 11:52

Laboratory Data

SDG ID: GCJ83206  
 Phoenix ID: CJ83207

Project ID: 2021-060  
 Client ID: CMG-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/23/21	EK	SW6010D
Barium (Dissolved)	0.080	0.002	mg/L	1	11/23/21	EK	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/23/21	AP	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/23/21	EK	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/23/21	EK	SW6010D
Filtration	Completed				11/22/21	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/23/21	AB/AB	SW7470A
Semi-Volatile Extraction	Completed				11/22/21	J/K	SW3520C
Dissolved Metals Preparation	Completed				11/22/21	AG	SW3005A
Extraction of TPH	Completed				11/22/21	J/K	SW3510C/SW3520C

**TPH by GC (Extractable Products)**

Aviation Fuel/Kerosene	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #2/ Diesel Fuel	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #4	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #6	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Motor Oil	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Total TPH	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Unidentified	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO

**QA/QC Surrogates**

% Terphenyl (surr)	86		%	1	11/23/21	JRB	50 - 150 %
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**Volatiles**

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Acetone	ND	25	ug/L	1	11/24/21	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/24/21	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/24/21	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	98		%	1	11/24/21	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	11/24/21	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	11/24/21	MH	70 - 130 %
% Toluene-d8	98		%	1	11/24/21	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	3.3	ug/L	1	11/24/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2,4-Dichlorophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2,4-Dimethylphenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2-Chlorophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2-Nitrophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.5	ug/L	1	11/24/21	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4-Nitrophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
Acetophenone	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Aniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Benzidine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Benzoic acid	ND	48	ug/L	1	11/24/21	WB	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
Carbazole	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Dibenzofuran	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Hexachloroethane	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
Isophorone	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
Phenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	98		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	63		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	48		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	65		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	50		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	93		%	1	11/24/21	WB	30 - 130 %
<b><u>Semivolatiles (SIM)</u></b>							
2-Methylnaphthalene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Anthracene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benz(a)anthracene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.19	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Chrysene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluoranthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluorene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorobenzene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)

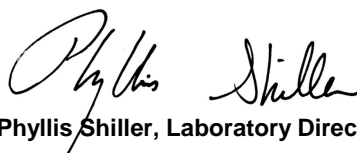
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobutadiene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Naphthalene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Nitrobenzene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
N-Nitrosodimethylamine	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pentachlorophenol	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Phenanthrene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyrene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	97		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	67		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	50		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	81		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	50		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	72		%	1	11/24/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**December 01, 2021**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 December 01, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: GROUND WATER  
 Location Code: CMGENV  
 Rush Request: 48 Hour  
 P.O.#: CRANSTON RI

Custody Information

Collected by: SV  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/19/21  
 11/22/21

Time

10:30  
 11:52

Laboratory Data

SDG ID: GCJ83206  
 Phoenix ID: CJ83208

Project ID: 2021-060  
 Client ID: CMG-3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Arsenic (Dissolved)	0.005	0.004	mg/L	1	11/23/21	EK	SW6010D
Barium (Dissolved)	0.042	0.002	mg/L	1	11/23/21	EK	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/23/21	AP	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/23/21	EK	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/23/21	EK	SW6010D
Filtration	Completed				11/22/21	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/23/21	AB/AB	SW7470A
Semi-Volatile Extraction	Completed				11/22/21	J/K	SW3520C
Dissolved Metals Preparation	Completed				11/22/21	AG	SW3005A
Extraction of TPH	Completed				11/22/21	J/K	SW3510C/SW3520C

**TPH by GC (Extractable Products)**

Aviation Fuel/Kerosene	ND	0.49	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #2/ Diesel Fuel	ND	0.49	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #4	ND	0.49	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #6	ND	0.49	mg/L	1	11/23/21	JRB	SW8015D DRO
Motor Oil	ND	0.49	mg/L	1	11/23/21	JRB	SW8015D DRO
Total TPH	ND	0.49	mg/L	1	11/23/21	JRB	SW8015D DRO
Unidentified	ND	0.49	mg/L	1	11/23/21	JRB	SW8015D DRO

**QA/QC Surrogates**

% Terphenyl (surr)	72		%	1	11/23/21	JRB	50 - 150 %
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**Volatiles**

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Acetone	ND	25	ug/L	1	11/24/21	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/24/21	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/24/21	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	98		%	1	11/24/21	MH	70 - 130 %
% Bromofluorobenzene	92		%	1	11/24/21	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	11/24/21	MH	70 - 130 %
% Toluene-d8	96		%	1	11/24/21	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	3.3	ug/L	1	11/24/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	11/24/21	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Aniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Benzidine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Benzoic acid	ND	47	ug/L	1	11/24/21	WB	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Carbazole	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Dibenzofuran	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Hexachloroethane	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Isophorone	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
Phenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	102		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	58		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	39		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	56		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	48		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	88		%	1	11/24/21	WB	30 - 130 %
<b><u>Semivolatiles (SIM)</u></b>							
2-Methylnaphthalene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Anthracene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benz(a)anthracene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.19	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Chrysene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluoranthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluorene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorobenzene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)

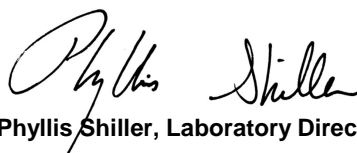
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobutadiene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Naphthalene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Nitrobenzene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
N-Nitrosodimethylamine	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pentachlorophenol	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Phenanthrene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyrene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	103		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	63		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	41		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	71		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	47		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	68		%	1	11/24/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**December 01, 2021**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 December 01, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: GROUND WATER  
 Location Code: CMGENV  
 Rush Request: 48 Hour  
 P.O.#: CRANSTON RI

Custody Information

Collected by: SV  
 Received by: LB  
 Analyzed by: see "By" below

Date                      Time  
 11/19/21                      11:15  
 11/22/21                      11:52

Laboratory Data

SDG ID: GCJ83206  
 Phoenix ID: CJ83209

Project ID: 2021-060  
 Client ID: CMG-4

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Arsenic (Dissolved)	0.009	0.004	mg/L	1	11/23/21	EK	SW6010D
Barium (Dissolved)	0.152	0.002	mg/L	1	11/23/21	EK	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/23/21	AP	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/23/21	EK	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/23/21	EK	SW6010D
Filtration	Completed				11/22/21	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/23/21	AB/AB	SW7470A
Semi-Volatile Extraction	Completed				11/22/21	J/K	SW3520C
Dissolved Metals Preparation	Completed				11/22/21	AG	SW3005A
Extraction of TPH	Completed				11/22/21	J/K	SW3510C/SW3520C

**TPH by GC (Extractable Products)**

Aviation Fuel/Kerosene	ND	0.50	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #2/ Diesel Fuel	ND	0.50	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #4	ND	0.50	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #6	ND	0.50	mg/L	1	11/23/21	JRB	SW8015D DRO
Motor Oil	ND	0.50	mg/L	1	11/23/21	JRB	SW8015D DRO
Total TPH	ND	0.50	mg/L	1	11/23/21	JRB	SW8015D DRO
Unidentified	ND	0.50	mg/L	1	11/23/21	JRB	SW8015D DRO

**QA/QC Surrogates**

% Terphenyl (surr)                      74                      %                      1                      11/23/21                      JRB                      50 - 150 %

**Volatiles**

1,1,1,2-Tetrachloroethane                      ND                      1.0                      ug/L                      1                      11/24/21                      MH                      SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,1-Trichloroethane	1.6	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Acetone	ND	25	ug/L	1	11/24/21	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/24/21	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/24/21	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	99		%	1	11/24/21	MH	70 - 130 %
% Bromofluorobenzene	92		%	1	11/24/21	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	11/24/21	MH	70 - 130 %
% Toluene-d8	98		%	1	11/24/21	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	3.5	ug/L	1	11/24/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
1,2-Dichlorobenzene	ND	2.5	ug/L	1	11/24/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
1,3-Dichlorobenzene	ND	2.5	ug/L	1	11/24/21	WB	SW8270D
1,4-Dichlorobenzene	ND	2.5	ug/L	1	11/24/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
2,4-Dichlorophenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
2,4-Dimethylphenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrophenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrotoluene	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
2,6-Dinitrotoluene	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
2-Chloronaphthalene	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
2-Chlorophenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
2-Nitroaniline	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
2-Nitrophenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	1	11/24/21	WB	SW8270D
3,3'-Dichlorobenzidine	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
3-Nitroaniline	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
4-Chloroaniline	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
4-Nitroaniline	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
4-Nitrophenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
Acetophenone	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Aniline	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Benzidine	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Benzoic acid	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Benzyl butyl phthalate	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
Carbazole	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Dibenzofuran	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Diethyl phthalate	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Dimethylphthalate	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Di-n-butylphthalate	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Di-n-octylphthalate	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Hexachloroethane	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
Isophorone	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	5.1	ug/L	1	11/24/21	WB	SW8270D
Pentachloronitrobenzene	ND	2.5	ug/L	1	11/24/21	WB	SW8270D
Phenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	111		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	68		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	55		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	74		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	60		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	111		%	1	11/24/21	WB	30 - 130 %
<b><u>Semivolatiles (SIM)</u></b>							
2-Methylnaphthalene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthene	0.78	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Anthracene	0.92	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benz(a)anthracene	0.61	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(a)pyrene	0.44	0.20	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Chrysene	0.65	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluoranthene	2.6	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluorene	1.0	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorobenzene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)

3

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobutadiene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Naphthalene	0.63	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Nitrobenzene	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
N-Nitrosodimethylamine	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pentachlorophenol	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Phenanthrene	3.8	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyrene	1.9	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyridine	ND	0.51	ug/L	1	11/24/21	WB	SW8270D (SIM)
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	103		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	69		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	56		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	91		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	55		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	82		%	1	11/24/21	WB	30 - 130 %

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

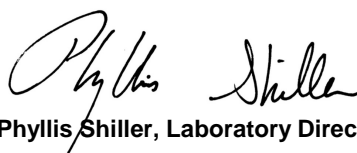
**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

**Semi-Volatile Comment:**

One of the surrogate recoveries was above the upper range due to sample matrix interference. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**December 01, 2021**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**





Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 December 01, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: GROUND WATER  
 Location Code: CMGENV  
 Rush Request: 48 Hour  
 P.O.#: CRANSTON RI

Custody Information

Collected by: SV  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/19/21  
 11/22/21

Time

12:00  
 11:52

Laboratory Data

SDG ID: GCJ83206  
 Phoenix ID: CJ83210

Project ID: 2021-060  
 Client ID: CMG-5

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/23/21	EK	SW6010D
Barium (Dissolved)	0.058	0.002	mg/L	1	11/23/21	EK	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/23/21	AP	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/23/21	EK	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/23/21	EK	SW6010D
Filtration	Completed				11/22/21	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/23/21	AB/AB	SW7470A
Semi-Volatile Extraction	Completed				11/22/21	J/K	SW3520C
Dissolved Metals Preparation	Completed				11/22/21	AG	SW3005A
Extraction of TPH	Completed				11/22/21	J/K	SW3510C/SW3520C

**TPH by GC (Extractable Products)**

Aviation Fuel/Kerosene	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #2/ Diesel Fuel	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #4	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #6	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Motor Oil	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Total TPH	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Unidentified	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO

**QA/QC Surrogates**

% Terphenyl (surr)	83		%	1	11/23/21	JRB	50 - 150 %
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**Volatiles**

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Acetone	ND	25	ug/L	1	11/24/21	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/24/21	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/24/21	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	98		%	1	11/24/21	MH	70 - 130 %
% Bromofluorobenzene	93		%	1	11/24/21	MH	70 - 130 %
% Dibromofluoromethane	97		%	1	11/24/21	MH	70 - 130 %
% Toluene-d8	97		%	1	11/24/21	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	3.3	ug/L	1	11/24/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2,4-Dichlorophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2,4-Dimethylphenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrotoluene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2,6-Dinitrotoluene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2-Chloronaphthalene	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2-Chlorophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
2-Nitroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
2-Nitrophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.5	ug/L	1	11/24/21	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
3-Nitroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
4-Chloroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
4-Nitroaniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
4-Nitrophenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
Acetophenone	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Aniline	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Benzidine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Benzoic acid	ND	48	ug/L	1	11/24/21	WB	SW8270D
Benzyl butyl phthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
Carbazole	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Dibenzofuran	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Diethyl phthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Dimethylphthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Di-n-butylphthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Di-n-octylphthalate	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Hexachloroethane	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
Isophorone	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.8	ug/L	1	11/24/21	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
Phenol	ND	0.95	ug/L	1	11/24/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	105		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	60		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	48		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	61		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	56		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	108		%	1	11/24/21	WB	30 - 130 %
<b><u>Semivolatiles (SIM)</u></b>							
2-Methylnaphthalene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Anthracene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benz(a)anthracene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.19	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Chrysene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluoranthene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluorene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorobenzene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)

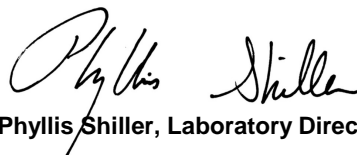
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobutadiene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Naphthalene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Nitrobenzene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
N-Nitrosodimethylamine	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pentachlorophenol	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Phenanthrene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyrene	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyridine	ND	0.48	ug/L	1	11/24/21	WB	SW8270D (SIM)
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	101		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	64		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	49		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	74		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	51		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	80		%	1	11/24/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**December 01, 2021**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 December 01, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: GROUND WATER  
 Location Code: CMGENV  
 Rush Request: 48 Hour  
 P.O.#: CRANSTON RI

Custody Information

Collected by: SV  
 Received by: LB  
 Analyzed by: see "By" below

Date                      Time  
 11/19/21                      12:45  
 11/22/21                      11:52

Laboratory Data

SDG ID: GCJ83206  
 Phoenix ID: CJ83211

Project ID: 2021-060  
 Client ID: CMG-6

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Arsenic (Dissolved)	0.006	0.004	mg/L	1	11/23/21	EK	SW6010D
Barium (Dissolved)	0.076	0.002	mg/L	1	11/23/21	EK	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/23/21	AP	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/23/21	EK	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/23/21	EK	SW6010D
Filtration	Completed				11/22/21	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/23/21	AB/AB	SW7470A
Semi-Volatile Extraction	Completed				11/22/21	J/K	SW3520C
Dissolved Metals Preparation	Completed				11/22/21	AG	SW3005A
Extraction of TPH	Completed				11/22/21	J/K	SW3510C/SW3520C

**TPH by GC (Extractable Products)**

Aviation Fuel/Kerosene	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #2/ Diesel Fuel	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #4	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #6	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Motor Oil	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Total TPH	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Unidentified	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO

**QA/QC Surrogates**

% Terphenyl (surr)	72		%	1	11/23/21	JRB	50 - 150 %
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**Volatiles**

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Acetone	ND	25	ug/L	1	11/24/21	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/24/21	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/24/21	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	99		%	1	11/24/21	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	11/24/21	MH	70 - 130 %
% Dibromofluoromethane	96		%	1	11/24/21	MH	70 - 130 %
% Toluene-d8	97		%	1	11/24/21	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	3.4	ug/L	1	11/24/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
2,4-Dichlorophenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
2,4-Dimethylphenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrophenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrotoluene	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
2,6-Dinitrotoluene	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
2-Chloronaphthalene	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
2-Chlorophenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
2-Nitroaniline	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
2-Nitrophenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.7	ug/L	1	11/24/21	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
3-Nitroaniline	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D



Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
4-Chloroaniline	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
4-Nitroaniline	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
4-Nitrophenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
Acetophenone	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Aniline	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Benzidine	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Benzoic acid	ND	49	ug/L	1	11/24/21	WB	SW8270D
Benzyl butyl phthalate	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
Carbazole	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Dibenzofuran	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Diethyl phthalate	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Dimethylphthalate	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Di-n-butylphthalate	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Di-n-octylphthalate	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Hexachloroethane	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
Isophorone	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.9	ug/L	1	11/24/21	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
Phenol	ND	0.97	ug/L	1	11/24/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	104		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	57		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	43		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	55		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	52		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	105		%	1	11/24/21	WB	30 - 130 %
<b><u>Semivolatiles (SIM)</u></b>							
2-Methylnaphthalene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Anthracene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benz(a)anthracene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.19	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Chrysene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluoranthene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluorene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorobenzene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobutadiene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Naphthalene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Nitrobenzene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
N-Nitrosodimethylamine	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pentachlorophenol	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Phenanthrene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyrene	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyridine	ND	0.49	ug/L	1	11/24/21	WB	SW8270D (SIM)
<b>QA/QC Surrogates</b>							
% 2,4,6-Tribromophenol	103		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	62		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	45		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	70		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	49		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	83		%	1	11/24/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**December 01, 2021**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 December 01, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: GROUND WATER  
 Location Code: CMGENV  
 Rush Request: 48 Hour  
 P.O.#: CRANSTON RI

Custody Information

Collected by: SV  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/19/21  
 11/22/21

Time

13:15  
 11:52

Laboratory Data

SDG ID: GCJ83206  
 Phoenix ID: CJ83212

Project ID: 2021-060  
 Client ID: CMG-7

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Arsenic (Dissolved)	0.005	0.004	mg/L	1	11/23/21	EK	SW6010D
Barium (Dissolved)	0.084	0.002	mg/L	1	11/23/21	EK	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/23/21	AP	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/23/21	EK	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/23/21	EK	SW6010D
Filtration	Completed				11/22/21	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/23/21	AB/AB	SW7470A
Semi-Volatile Extraction	Completed				11/22/21	J/K	SW3520C
Dissolved Metals Preparation	Completed				11/22/21	AG	SW3005A
Extraction of TPH	Completed				11/22/21	J/K	SW3510C/SW3520C

**TPH by GC (Extractable Products)**

Aviation Fuel/Kerosene	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #2/ Diesel Fuel	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #4	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #6	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Motor Oil	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Total TPH	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Unidentified	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO

**QA/QC Surrogates**

% Terphenyl (surr) 82 % 1 11/23/21 JRB 50 - 150 %

**Volatiles**

1,1,1,2-Tetrachloroethane ND 1.0 ug/L 1 11/24/21 MH SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Acetone	ND	25	ug/L	1	11/24/21	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/24/21	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/24/21	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	98		%	1	11/24/21	MH	70 - 130 %
% Bromofluorobenzene	93		%	1	11/24/21	MH	70 - 130 %
% Dibromofluoromethane	95		%	1	11/24/21	MH	70 - 130 %
% Toluene-d8	97		%	1	11/24/21	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	3.3	ug/L	1	11/24/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	11/24/21	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Aniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Benzidine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Benzoic acid	ND	47	ug/L	1	11/24/21	WB	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Carbazole	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Dibenzofuran	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Hexachloroethane	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Isophorone	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
Phenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	108		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	64		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	44		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	65		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	48		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	110		%	1	11/24/21	WB	30 - 130 %
<b><u>Semivolatiles (SIM)</u></b>							
2-Methylnaphthalene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Anthracene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benz(a)anthracene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.19	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Chrysene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluoranthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluorene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorobenzene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)

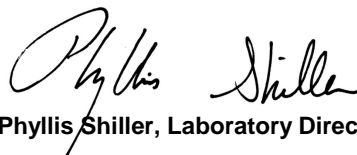
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobutadiene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Naphthalene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Nitrobenzene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
N-Nitrosodimethylamine	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pentachlorophenol	ND	1.0	ug/L	1	11/24/21	WB	SW8270D (SIM)
Phenanthrene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyrene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	98		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	67		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	47		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	76		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	45		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	84		%	1	11/24/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**December 01, 2021**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report**  
 December 01, 2021

FOR: Attn: Mr. Steve Van Wormer  
 CMG Environmental, Inc.  
 67 Hall Rd  
 Sturbridge, MA 01566

Sample Information

Matrix: GROUND WATER  
 Location Code: CMGENV  
 Rush Request: 48 Hour  
 P.O.#: CRANSTON RI

Custody Information

Collected by: SV  
 Received by: LB  
 Analyzed by: see "By" below

Date

11/19/21  
 11/22/21

Time

13:30  
 11:52

Laboratory Data

SDG ID: GCJ83206  
 Phoenix ID: CJ83213

Project ID: 2021-060  
 Client ID: CMG-8

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	11/23/21	EK	SW6010D
Barium (Dissolved)	< 0.002	0.002	mg/L	1	11/23/21	EK	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	11/23/21	EK	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	11/23/21	AP	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	11/23/21	EK	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	11/23/21	EK	SW6010D
Filtration	Completed				11/22/21	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				11/23/21	AB/AB	SW7470A
Semi-Volatile Extraction	Completed				11/22/21	J/K	SW3520C
Dissolved Metals Preparation	Completed				11/22/21	AG	SW3005A
Extraction of TPH	Completed				11/22/21	J/K	SW3510C/SW3520C

**TPH by GC (Extractable Products)**

Aviation Fuel/Kerosene	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #2/ Diesel Fuel	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #4	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Fuel Oil #6	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Motor Oil	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Total TPH	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO
Unidentified	ND	0.47	mg/L	1	11/23/21	JRB	SW8015D DRO

**QA/QC Surrogates**

% Terphenyl (surr)	87		%	1	11/23/21	JRB	50 - 150 %
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**Volatiles**

1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
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Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1,1-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dibromoethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	11/24/21	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Acetone	ND	25	ug/L	1	11/24/21	MH	SW8260C
Acrylonitrile	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Benzene	ND	0.70	ug/L	1	11/24/21	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Carbon tetrachloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	11/24/21	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	11/24/21	MH	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Styrene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	11/24/21	MH	SW8260C
Toluene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	11/24/21	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	11/24/21	MH	SW8260C
Trichloroethene	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	11/24/21	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	98		%	1	11/24/21	MH	70 - 130 %
% Bromofluorobenzene	94		%	1	11/24/21	MH	70 - 130 %
% Dibromofluoromethane	99		%	1	11/24/21	MH	70 - 130 %
% Toluene-d8	98		%	1	11/24/21	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	3.3	ug/L	1	11/24/21	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	11/24/21	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Acetophenone	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Aniline	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Benzidine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Benzoic acid	ND	47	ug/L	1	11/24/21	WB	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Carbazole	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Dibenzofuran	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Hexachloroethane	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
Isophorone	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	11/24/21	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	11/24/21	WB	SW8270D
Phenol	ND	0.94	ug/L	1	11/24/21	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	108		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	59		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	37		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	56		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	45		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	113		%	1	11/24/21	WB	30 - 130 %
<b><u>Semivolatiles (SIM)</u></b>							
2-Methylnaphthalene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Acenaphthylene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Anthracene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benz(a)anthracene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.19	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(b)fluoranthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Chrysene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluoranthene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Fluorene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorobenzene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)

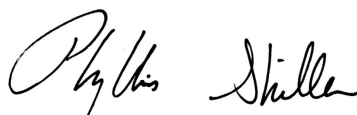
Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Hexachlorobutadiene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Naphthalene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Nitrobenzene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
N-Nitrosodimethylamine	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pentachlorophenol	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Phenanthrene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyrene	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	11/24/21	WB	SW8270D (SIM)
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	95		%	1	11/24/21	WB	15 - 110 %
% 2-Fluorobiphenyl	60		%	1	11/24/21	WB	30 - 130 %
% 2-Fluorophenol	37		%	1	11/24/21	WB	15 - 110 %
% Nitrobenzene-d5	67		%	1	11/24/21	WB	30 - 130 %
% Phenol-d5	41		%	1	11/24/21	WB	15 - 110 %
% Terphenyl-d14	78		%	1	11/24/21	WB	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**December 01, 2021**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
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# QA/QC Report

December 01, 2021

## QA/QC Data

SDG I.D.: GCJ83206

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 601837 (mg/L), QC Sample No: CJ83210 (CJ83206, CJ83207, CJ83208, CJ83209, CJ83210, CJ83211, CJ83212, CJ83213)													
Mercury (Dissolved)	BRL	0.0002	<0.0002	<0.0002	NC	96.0			>130			80 - 120	20 m

Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 601761 (mg/L), QC Sample No: CJ83747 (CJ83206, CJ83207, CJ83208, CJ83209, CJ83210, CJ83211, CJ83212, CJ83213)

### ICP Metals - Dissolved

Arsenic	BRL	0.004	0.006	0.007	NC	89.6	86.1	4.0	89.8			80 - 120	20
Barium	BRL	0.002	0.103	0.103	0	92.4	87.8	5.1	88.4			80 - 120	20
Cadmium	BRL	0.001	<0.004	<0.001	NC	89.5	85.5	4.6	84.7			80 - 120	20
Chromium	BRL	0.001	<0.001	<0.001	NC	88.8	84.9	4.5	84.9			80 - 120	20
Lead	BRL	0.002	<0.002	<0.002	NC	91.2	87.5	4.1	88.0			80 - 120	20
Selenium	BRL	0.011	<0.011	<0.011	NC	90.3	85.2	5.8	91.4			80 - 120	20
Silver	BRL	0.001	<0.005	<0.001	NC	87.8	84.2	4.2	88.6			80 - 120	20

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

m = This parameter is outside laboratory MS/MSD specified recovery limits.



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# QA/QC Report

December 01, 2021

## QA/QC Data

SDG I.D.: GCJ83206

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								

QA/QC Batch 601772 (mg/L), QC Sample No: CJ83412 (CJ83206, CJ83207, CJ83208, CJ83209, CJ83210, CJ83211, CJ83212, CJ83213)

### TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum H.C. (C9-C36)	ND	0.10	97	119	20.4	121	105	14.2	60 - 120	30
% Terphenyl (surr)	93	%	99	116	15.8	104	89	15.5	50 - 150	20

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 601802 (ug/L), QC Sample No: CJ83744 (CJ83206, CJ83207, CJ83208, CJ83209, CJ83210, CJ83211, CJ83212, CJ83213)

### Semivolatiles - Ground Water

1,2,4,5-Tetrachlorobenzene	ND	3.5	69	63	9.1				40 - 140	20	
1,2,4-Trichlorobenzene	ND	3.5	66	52	23.7				40 - 140	20	r
1,2-Dichlorobenzene	ND	1.0	61	44	32.4				40 - 140	20	r
1,2-Diphenylhydrazine	ND	1.6	51	79	43.1				40 - 140	20	r
1,3-Dichlorobenzene	ND	1.0	60	41	37.6				40 - 140	20	r
1,4-Dichlorobenzene	ND	1.0	62	44	34.0				40 - 140	20	r
2,4,5-Trichlorophenol	ND	1.0	76	79	3.9				40 - 140	20	
2,4,6-Trichlorophenol	ND	1.0	82	82	0.0				30 - 130	20	
2,4-Dichlorophenol	ND	1.0	69	65	6.0				30 - 130	20	
2,4-Dimethylphenol	ND	1.0	77	71	8.1				30 - 130	20	
2,4-Dinitrophenol	ND	1.0	108	120	10.5				30 - 130	20	
2,4-Dinitrotoluene	ND	3.5	101	107	5.8				30 - 130	20	
2,6-Dinitrotoluene	ND	3.5	92	92	0.0				40 - 140	20	
2-Chloronaphthalene	ND	3.5	81	75	7.7				40 - 140	20	
2-Chlorophenol	ND	1.0	61	49	21.8				30 - 130	20	r
2-Methylphenol (o-cresol)	ND	1.0	56	52	7.4				40 - 140	20	
2-Nitroaniline	ND	3.5	70	120	52.6				40 - 140	20	r
2-Nitrophenol	ND	1.0	87	77	12.2				40 - 140	20	
3&4-Methylphenol (m&p-cresol)	ND	1.0	56	55	1.8				30 - 130	20	
3,3'-Dichlorobenzidine	ND	5.0	58	58	0.0				40 - 140	20	
3-Nitroaniline	ND	5.0	23	84	114.0				40 - 140	20	l,r
4,6-Dinitro-2-methylphenol	ND	1.0	120	129	7.2				30 - 130	20	
4-Bromophenyl phenyl ether	ND	3.5	86	88	2.3				40 - 140	20	
4-Chloro-3-methylphenol	ND	1.0	74	78	5.3				30 - 130	20	
4-Chloroaniline	ND	3.5	13	71	138.1				40 - 140	20	l,r
4-Chlorophenyl phenyl ether	ND	1.0	88	84	4.7				40 - 140	20	
4-Nitroaniline	ND	5.0	83	91	9.2				40 - 140	20	
4-Nitrophenol	ND	1.0	87	104	17.8				30 - 130	20	
Acetophenone	ND	3.5	63	53	17.2				40 - 140	20	
Aniline	ND	3.5	50	50	0.0				40 - 140	20	
Benzidine	ND	4.5	30	30	0.0				40 - 140	20	l
Benzoic acid	ND	10	38	38	0.0				30 - 130	20	

QA/QC Data

SDG I.D.: GCJ83206

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
	Blank	RL									
Benzyl butyl phthalate	ND	1.5	93	103	10.2				40 - 140	20	
Bis(2-chloroethoxy)methane	ND	3.5	30	57	62.1				40 - 140	20	l,r
Bis(2-chloroethyl)ether	ND	1.0	55	42	26.8				40 - 140	20	r
Bis(2-chloroisopropyl)ether	ND	1.0	56	43	26.3				40 - 140	20	r
Bis(2-ethylhexyl)phthalate	ND	1.5	100	105	4.9				40 - 140	20	
Carbazole	ND	5.0	37	91	84.4				40 - 140	20	l,r
Dibenzofuran	ND	3.5	78	76	2.6				40 - 140	20	
Diethyl phthalate	ND	1.5	89	91	2.2				40 - 140	20	
Dimethylphthalate	ND	1.5	85	85	0.0				40 - 140	20	
Di-n-butylphthalate	ND	1.5	95	99	4.1				40 - 140	20	
Di-n-octylphthalate	ND	1.5	94	97	3.1				40 - 140	20	
Hexachloroethane	ND	3.5	63	44	35.5				40 - 140	20	r
Isophorone	ND	3.5	60	58	3.4				40 - 140	20	
N-Nitrosodi-n-propylamine	ND	3.5	66	59	11.2				40 - 140	20	
N-Nitrosodiphenylamine	ND	3.5	76	76	0.0				40 - 140	20	
Pentachloronitrobenzene	ND	5.0	95	101	6.1				40 - 140	20	
Phenol	ND	1.0	43	49	13.0				30 - 130	20	
% 2,4,6-Tribromophenol	82	%	95	100	5.1				15 - 110	20	
% 2-Fluorobiphenyl	61	%	74	66	11.4				30 - 130	20	
% 2-Fluorophenol	47	%	39	32	19.7				15 - 110	20	
% Nitrobenzene-d5	56	%	62	52	17.5				30 - 130	20	
% Phenol-d5	33	%	39	41	5.0				15 - 110	20	
% Terphenyl-d14	105	%	103	104	1.0				30 - 130	20	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 601802 (ug/L), QC Sample No: CJ83744 (CJ83206, CJ83207, CJ83208, CJ83209, CJ83210, CJ83211, CJ83212, CJ83213)

Semivolatiles (SIM) - Ground Water

2-Methylnaphthalene	ND	0.50	75	60	22.2				30 - 130	20	r
Acenaphthene	ND	0.50	87	83	4.7				30 - 130	20	
Acenaphthylene	ND	0.50	62	72	14.9				30 - 130	20	
Anthracene	ND	0.50	90	90	0.0				30 - 130	20	
Benz(a)anthracene	ND	0.50	86	88	2.3				30 - 130	20	
Benzo(a)pyrene	ND	0.50	75	82	8.9				30 - 130	20	
Benzo(b)fluoranthene	ND	0.50	99	100	1.0				30 - 130	20	
Benzo(ghi)perylene	ND	0.50	102	109	6.6				30 - 130	20	
Benzo(k)fluoranthene	ND	0.50	97	104	7.0				30 - 130	20	
Chrysene	ND	0.50	98	99	1.0				30 - 130	20	
Dibenz(a,h)anthracene	ND	0.50	104	107	2.8				30 - 130	20	
Fluoranthene	ND	0.50	93	94	1.1				30 - 130	20	
Fluorene	ND	0.50	91	89	2.2				30 - 130	20	
Hexachlorobenzene	ND	0.50	76	78	2.6				30 - 130	20	
Hexachlorobutadiene	ND	0.50	70	50	33.3				30 - 130	20	r
Hexachlorocyclopentadiene	ND	0.50	35	23	41.4				30 - 130	20	l,r
Indeno(1,2,3-cd)pyrene	ND	0.50	100	103	3.0				30 - 130	20	
Naphthalene	ND	0.50	78	58	29.4				30 - 130	20	r
Nitrobenzene	ND	0.50	110	77	35.3				30 - 130	20	r
N-Nitrosodimethylamine	ND	0.05	66	43	42.2				30 - 130	20	r
Pentachlorophenol	ND	0.50	122	105	15.0				30 - 130	20	
Phenanthrene	ND	0.50	89	87	2.3				30 - 130	20	
Pyrene	ND	0.50	95	97	2.1				30 - 130	20	

QA/QC Data

SDG I.D.: GCJ83206

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Pyridine	ND	0.50	25	37	38.7				30 - 130	20
% 2,4,6-Tribromophenol	94	%	115	113	1.8				15 - 110	20
% 2-Fluorobiphenyl	66	%	75	69	8.3				30 - 130	20
% 2-Fluorophenol	51	%	44	35	22.8				15 - 110	20
% Nitrobenzene-d5	74	%	92	67	31.4				30 - 130	20
% Phenol-d5	36	%	43	41	4.8				15 - 110	20
% Terphenyl-d14	85	%	96	96	0.0				30 - 130	20

Comment:

Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 602283 (ug/L), QC Sample No: CJ81665 (CJ83213)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	99	108	8.7				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	95	105	10.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	98	109	10.6				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	95	105	10.0				70 - 130	30
1,1-Dichloroethane	ND	1.0	107	117	8.9				70 - 130	30
1,1-Dichloroethene	ND	1.0	98	106	7.8				70 - 130	30
1,1-Dichloropropene	ND	1.0	96	106	9.9				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	92	101	9.3				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	103	111	7.5				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	100	108	7.7				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	100	109	8.6				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	95	107	11.9				70 - 130	30
1,2-Dibromoethane	ND	1.0	99	110	10.5				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	98	106	7.8				70 - 130	30
1,2-Dichloroethane	ND	1.0	99	109	9.6				70 - 130	30
1,2-Dichloropropane	ND	1.0	99	108	8.7				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	100	108	7.7				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	98	107	8.8				70 - 130	30
1,3-Dichloropropane	ND	1.0	101	112	10.3				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	98	106	7.8				70 - 130	30
2,2-Dichloropropane	ND	1.0	100	108	7.7				70 - 130	30
2-Chlorotoluene	ND	1.0	101	109	7.6				70 - 130	30
2-Hexanone	ND	5.0	96	110	13.6				70 - 130	30
2-Isopropyltoluene	ND	1.0	98	108	9.7				70 - 130	30
4-Chlorotoluene	ND	1.0	102	111	8.5				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	100	112	11.3				70 - 130	30
Acetone	ND	5.0	91	97	6.4				70 - 130	30
Acrylonitrile	ND	5.0	107	113	5.5				70 - 130	30
Benzene	ND	0.70	99	110	10.5				70 - 130	30
Bromobenzene	ND	1.0	99	108	8.7				70 - 130	30
Bromochloromethane	ND	1.0	99	101	2.0				70 - 130	30
Bromodichloromethane	ND	0.50	97	108	10.7				70 - 130	30
Bromoform	ND	1.0	97	107	9.8				70 - 130	30
Bromomethane	ND	1.0	130	144	10.2				70 - 130	30
Carbon Disulfide	ND	1.0	94	102	8.2				70 - 130	30
Carbon tetrachloride	ND	1.0	93	102	9.2				70 - 130	30
Chlorobenzene	ND	1.0	100	109	8.6				70 - 130	30
Chloroethane	ND	1.0	108	114	5.4				70 - 130	30
Chloroform	ND	1.0	102	109	6.6				70 - 130	30
Chloromethane	ND	1.0	108	116	7.1				70 - 130	30



## QA/QC Data

SDG I.D.: GCJ83206

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
cis-1,2-Dichloroethene	ND	1.0	102	118	14.5				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	98	109	10.6				70 - 130	30
Dibromochloromethane	ND	0.50	98	108	9.7				70 - 130	30
Dibromomethane	ND	1.0	100	111	10.4				70 - 130	30
Dichlorodifluoromethane	ND	1.0	87	94	7.7				70 - 130	30
Ethylbenzene	ND	1.0	103	111	7.5				70 - 130	30
Hexachlorobutadiene	ND	0.40	94	102	8.2				70 - 130	30
Isopropylbenzene	ND	1.0	100	109	8.6				70 - 130	30
m&p-Xylene	ND	1.0	102	111	8.5				70 - 130	30
Methyl ethyl ketone	ND	5.0	100	114	13.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	99	109	9.6				70 - 130	30
Methylene chloride	ND	1.0	86	94	8.9				70 - 130	30
Naphthalene	ND	1.0	103	112	8.4				70 - 130	30
n-Butylbenzene	ND	1.0	103	113	9.3				70 - 130	30
n-Propylbenzene	ND	1.0	100	110	9.5				70 - 130	30
o-Xylene	ND	1.0	99	108	8.7				70 - 130	30
p-Isopropyltoluene	ND	1.0	99	107	7.8				70 - 130	30
sec-Butylbenzene	ND	1.0	99	108	8.7				70 - 130	30
Styrene	ND	1.0	103	112	8.4				70 - 130	30
tert-Butylbenzene	ND	1.0	98	107	8.8				70 - 130	30
Tetrachloroethene	ND	1.0	93	103	10.2				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	97	109	11.7				70 - 130	30
Toluene	ND	1.0	99	110	10.5				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	105	112	6.5				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	98	109	10.6				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	102	115	12.0				70 - 130	30
Trichloroethene	ND	1.0	97	107	9.8				70 - 130	30
Trichlorofluoromethane	ND	1.0	93	99	6.3				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	84	90	6.9				70 - 130	30
Vinyl chloride	ND	1.0	103	112	8.4				70 - 130	30
% 1,2-dichlorobenzene-d4	98	%	100	101	1.0				70 - 130	30
% Bromofluorobenzene	95	%	100	101	1.0				70 - 130	30
% Dibromofluoromethane	95	%	99	97	2.0				70 - 130	30
% Toluene-d8	96	%	100	100	0.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

QA/QC Batch 602088 (ug/L), QC Sample No: CJ83928 (CJ83206, CJ83207, CJ83208, CJ83209, CJ83210, CJ83211, CJ83212)

### Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	113	99	13.2				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	111	97	13.5				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	110	98	11.5				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	107	94	12.9				70 - 130	30
1,1-Dichloroethane	ND	1.0	124	106	15.7				70 - 130	30
1,1-Dichloroethene	ND	1.0	112	99	12.3				70 - 130	30
1,1-Dichloropropene	ND	1.0	111	97	13.5				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	89	81	9.4				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	108	98	9.7				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	110	96	13.6				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	117	103	12.7				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	107	99	7.8				70 - 130	30

## QA/QC Data

SDG I.D.: GCJ83206

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
1,2-Dibromoethane	ND	1.0	112	97	14.4				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	112	100	11.3				70 - 130	30
1,2-Dichloroethane	ND	1.0	108	95	12.8				70 - 130	30
1,2-Dichloropropane	ND	1.0	111	97	13.5				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	118	105	11.7				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	115	100	14.0				70 - 130	30
1,3-Dichloropropane	ND	1.0	113	98	14.2				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	113	100	12.2				70 - 130	30
2,2-Dichloropropane	ND	1.0	112	98	13.3				70 - 130	30
2-Chlorotoluene	ND	1.0	120	105	13.3				70 - 130	30
2-Hexanone	ND	5.0	104	90	14.4				70 - 130	30
2-Isopropyltoluene	ND	1.0	117	102	13.7				70 - 130	30
4-Chlorotoluene	ND	1.0	120	107	11.5				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	108	94	13.9				70 - 130	30
Acetone	ND	5.0	97	84	14.4				70 - 130	30
Acrylonitrile	ND	5.0	114	102	11.1				70 - 130	30
Benzene	ND	0.70	114	100	13.1				70 - 130	30
Bromobenzene	ND	1.0	115	103	11.0				70 - 130	30
Bromochloromethane	ND	1.0	98	92	6.3				70 - 130	30
Bromodichloromethane	ND	0.50	110	97	12.6				70 - 130	30
Bromoform	ND	1.0	106	94	12.0				70 - 130	30
Bromomethane	ND	1.0	140	132	5.9				70 - 130	30
Carbon Disulfide	ND	1.0	109	95	13.7				70 - 130	30
Carbon tetrachloride	ND	1.0	108	93	14.9				70 - 130	30
Chlorobenzene	ND	1.0	115	100	14.0				70 - 130	30
Chloroethane	ND	1.0	124	107	14.7				70 - 130	30
Chloroform	ND	1.0	111	99	11.4				70 - 130	30
Chloromethane	ND	1.0	123	108	13.0				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	124	107	14.7				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	110	97	12.6				70 - 130	30
Dibromochloromethane	ND	0.50	110	97	12.6				70 - 130	30
Dibromomethane	ND	1.0	110	98	11.5				70 - 130	30
Dichlorodifluoromethane	ND	1.0	105	90	15.4				70 - 130	30
Ethylbenzene	ND	1.0	119	104	13.5				70 - 130	30
Hexachlorobutadiene	ND	0.40	106	93	13.1				70 - 130	30
Isopropylbenzene	ND	1.0	120	105	13.3				70 - 130	30
m&p-Xylene	ND	1.0	117	103	12.7				70 - 130	30
Methyl ethyl ketone	ND	5.0	104	93	11.2				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	107	93	14.0				70 - 130	30
Methylene chloride	ND	1.0	100	87	13.9				70 - 130	30
Naphthalene	ND	1.0	107	96	10.8				70 - 130	30
n-Butylbenzene	ND	1.0	120	105	13.3				70 - 130	30
n-Propylbenzene	ND	1.0	119	106	11.6				70 - 130	30
o-Xylene	ND	1.0	116	100	14.8				70 - 130	30
p-Isopropyltoluene	ND	1.0	118	103	13.6				70 - 130	30
sec-Butylbenzene	ND	1.0	118	103	13.6				70 - 130	30
Styrene	ND	1.0	117	102	13.7				70 - 130	30
tert-Butylbenzene	ND	1.0	118	103	13.6				70 - 130	30
Tetrachloroethene	ND	1.0	109	95	13.7				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	102	90	12.5				70 - 130	30
Toluene	ND	1.0	116	101	13.8				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	121	106	13.2				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	108	95	12.8				70 - 130	30

## QA/QC Data

SDG I.D.: GCJ83206

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
trans-1,4-dichloro-2-butene	ND	5.0	111	101	9.4				70 - 130	30
Trichloroethene	ND	1.0	112	99	12.3				70 - 130	30
Trichlorofluoromethane	ND	1.0	106	93	13.1				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	97	83	15.6				70 - 130	30
Vinyl chloride	ND	1.0	120	104	14.3				70 - 130	30
% 1,2-dichlorobenzene-d4	99	%	99	99	0.0				70 - 130	30
% Bromofluorobenzene	95	%	98	97	1.0				70 - 130	30
% Dibromofluoromethane	99	%	97	95	2.1				70 - 130	30
% Toluene-d8	95	%	100	100	0.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample


LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

  
 Phyllis Shiller, Laboratory Director  
 December 01, 2021

Wednesday, December 01, 2021

Criteria: RI: GB GW

State: RI

## Sample Criteria Exceedances Report

GCJ83206 - CMGENV

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----------------	-------------------

\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Comments

December 01, 2021

SDG I.D.: GCJ83206

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

### **SVOA Narration**

**CHEM22 11/24/21-1:** CJ83206, CJ83207, CJ83208, CJ83209, CJ83210, CJ83211, CJ83212, CJ83213

The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.063 (0.1)

The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.080 (0.1)

The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

### **VOA Narration**

**CHEM02 11/23/21-2:** CJ83206, CJ83207, CJ83208, CJ83209, CJ83210, CJ83211, CJ83212

Chem02 is a 25ml purge instrument. The laboratory minimum response factor is set at 0.01 instead of 0.05 for the 25ml purge instruments.

EPA method 8260D Table 4 supports this approach.

The following Initial Calibration compounds did not meet RSD% criteria: Bromoform 24% (20%), Naphthalene 22% (20%)

The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.041 (0.05), 2-Hexanone 0.090 (0.1), Acetone 0.047 (0.1), Bromoform 0.079 (0.1), Methyl ethyl ketone 0.087 (0.1)

The following Initial Calibration compounds did not meet minimum response factors: 1,2-Dibromo-3-chloropropane 0.041 (0.05), Acetone 0.047 (0.05)

The following Continuing Calibration compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.038 (0.05), Acetone 0.042 (0.05)

The following Continuing Calibration compounds did not meet minimum response factors: 1,2-Dibromo-3-chloropropane 0.041 (0.05), Acetone 0.047 (0.05)

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

**CHEM02 11/24/21-1:** CJ83213

Chem02 is a 25ml purge instrument. The laboratory minimum response factor is set at 0.01 instead of 0.05 for the 25ml purge instruments.

EPA method 8260D Table 4 supports this approach.

The following Initial Calibration compounds did not meet RSD% criteria: Bromoform 24% (20%), Naphthalene 22% (20%)

The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.041 (0.05), 2-Hexanone 0.090 (0.1), Acetone 0.047 (0.1), Bromoform 0.079 (0.1), Methyl ethyl ketone 0.087 (0.1)

The following Initial Calibration compounds did not meet minimum response factors: 1,2-Dibromo-3-chloropropane 0.041 (0.05), Acetone 0.047 (0.05)

The following Continuing Calibration compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.043 (0.05), Acetone 0.049 (0.05)

The following Continuing Calibration compounds did not meet minimum response factors: 1,2-Dibromo-3-chloropropane 0.041 (0.05), Acetone 0.047 (0.05)

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.



**CHAIN OF CUSTODY RECORD**

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040  
 Email: info@phoenixlabs.com Fax (860) 645-0823  
**Client Services (860) 645-8726**

Coolant: Yes  No   
 IPK  ICE  No   
 Temp 1.3 °C Pg of

Data Delivery/Contact Options:

Fax: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: SMALLWOODS@CUMMINS.COM

Customer: 67 Hill Road Project P.O.: CUNNINGHAM  
 Address: Stoughton MA Report to: CNG  
 Invoice to: CNU QUOTE # \_\_\_\_\_

This section **MUST** be completed with Bottle Quantities.

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request
83206	CMG-1	GW	11/19/21	0830	X X X X
83207	CMG-2			0945	↑
83208	CMG-3			1030	↑
83209	CMG-4			1115	↑
83210	CMG-5			1200	↑
83211	CMG-6			1245	↑
83212	CMG-7			1315	↑
83213	CMG-8			1330	↑

MS/MSD * 8 oz. w/304	40 ml VOA Vial (As is) H2O	40 ml VOA Vial (As is) HCL	GL Amber 100ml (As is) H2O	GL Amber 100ml (As is) HCL	PL H2SO4 [ 250ml ] 1500ml [ 1500ml ]	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle w/10

Requisitioned by: [Signature] Accepted by: [Signature]  
 Date: 11/22/21 1045  
 11/22/21 11:52  
 Turnaround Time:  
 1 Day\*  
 2 Days\*  
 3 Days\*  
 Standard  
 Other  
 \*SURCHARGE APPLIES

Comments, Special Requirements or Regulations:  
 \*MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.  
 State where samples were collected: MA  
 \*SURCHARGE APPLIES

## APPENDIX C

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### SOIL MANAGEMENT PLAN

ENVIRONMENTAL  
SERVICES



ENGINEERING  
SERVICES

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## SOIL MANAGEMENT PLAN

FORMER TROLLEY BARN

777 CRANSTON STREET  
CRANSTON, RHODE ISLAND

MARCH 4, 2022

PREPARED FOR:

MR. SHAMUS FINNEY  
FIRST HARTFORD REALTY CORPORATION  
149 COLONIAL ROAD  
MANCHESTER CT, 06042

SUBMITTED BY:

CMG ENVIRONMENTAL, INC.  
CMG ID 2021-060

---

67 HALL ROAD  
STURBRIDGE, MA 01566  
PHONE (774) 241-0901  
FAX (774) 241-0906

560 SOUTH MAIN STREET  
NEW BRITAIN, CT 06051  
PHONE (866) 304-7625  
FAX (860) 223-5454



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### FIGURES [NUMBERED IN ACCORDANCE WITH CMG'S RAWP]

Figure 2 – Site Plan

Figure 4 – Proposed Site Design

## 1.0 INTRODUCTION

CMG Environmental, Inc. (CMG) intends this Soil Management Plan (SMP) to direct soil excavation and stockpiling at the former “Trolley Barn” property located at 777 Cranston Street in Cranston, Rhode Island (the Site) as part of Site redevelopment activities.

CMG based the information discussed herein, in part, on previous environmental Site assessment reports, information provided by the client, their agents, or third parties, including state or local officials. We assume no responsibility for the accuracy and completeness of third-party information.

### 1.1 SITE LOCATION & DESCRIPTION

The City of Cranston Assessor’s Map 7 identifies the Site as Lot 2, Unit 1. Records obtained online using the City of Cranston’s online GIS system (<https://cranston.maps.arcgis.com/home/index.html>) identify the Site as Map 7, Lot 1, Unit 0. The Site consists of 300,999 square feet (approximately 6.91 acres) of land.

UTM (Universal Transverse Mercator) coordinates in the approximate middle of the Site are 4,630,900 meters north and 297,150 meters east in Zone 19. This point is at 41°48'14.5" north latitude (41.80403 °N), 71°26'30.5" west longitude (-71.44180 °E). Figure 2 (Site Plan) depicts the pertinent Site information in relation to Site boundaries and other features.

### 1.2 RELEVANT SITE HISTORY

According to information provided in the August 11, 2021 Phase I Environmental Site Assessment (ESA) by Earth Science, LLC (Earth Science) of Irvine, California, the Site consisted of undeveloped land prior to 1900 when the United Traction Electric Company constructed a 113,000 square foot brick building (the “Trolley Barn”) which they used as an electric streetcar depot and repair facility.

Between 1900 and 1921, Rhode Island Suburban Railway Company owned the Site until United Electric Railway Company purchased it. Liberty Real Estate & Investment Corporation purchased the Site in 1936, and leased portions of it to a gas station (reportedly from 1934 to 1939), two sign companies, a bus company, and a trucking company. Narragansett Brewery began to lease the Site in 1950 and Falstaff Brewing Corporation purchased the Site in 1965. Brewery operations shut down in July 1981.

Trolley Barn Associates, LLC acquired the Site on October 30, 2000. On May 6, 2005 a fire occurred at the Site that resulted in the demolition of the Trolley Barn building. The Site has remained vacant since 2005.

### 1.3 ENVIRONMENTAL HISTORY

CMG reviewed a December 2000 “Limited Subsurface Investigation” report prepared on the Site by Paragon; an October 31, 2005 “Remedial Action Work Plan” prepared on the Site by CMG; and an August 11, 2021 “Phase I Environmental Site Assessment Report” prepared on the Site by Earth Science. The following Sections summarize our review of these reports.

### 1.3.1 DECEMBER 2000 LIMITED SUBSURFACE INVESTIGATION BY PARAGON

- Paragon supervised a geophysical survey (GPS) of the Site in September 2000. They identified three anomalies consistent with the size and amplitude expected for an underground storage tank (UST).
- Paragon supervised the advancement of 10 soil borings (designated PSB-1 through PSB-4 and PES-1 through PES-6). They collected soil samples every two feet and screened them for total organic vapors (TOV) using a freshly calibrated photoionization detector on parts per million by volume basis (ppmv<sup>1</sup>).

Paragon observed a maximum TOV reading of 0.1 ppmv at PES-6 (20-22'). Given the low TOV readings, Paragon did not submit soil samples for laboratory analysis.

- Immediately following the advancement of soil borings PES-1 through PES-6, Paragon supervised the installation of groundwater monitoring wells. They subsequently collected groundwater samples from PES-1 through PES-6 in October 2000. Paragon submitted groundwater samples for laboratory analysis of volatile organic compounds (VOCs) by EPA Method 8260, total petroleum hydrocarbons (TPH) by EPA Method 8015, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270 and dissolved eight Resource Conservation and Recovery Act toxic metals (RCRA8) by various EPA 200-series methodologies.
- Laboratory analysis of groundwater showed trace concentration of benzene, toluene, ethylbenzene, xylenes and methyl tertiary butyl ether (MTBE) in PES-1. Paragon opined that the VOC detections were the result of an upgradient source. None of the analytes exceeded the applicable Method 1 GB Groundwater Objectives.
- Paragon did not identify any Site conditions requiring notification to the Rhode Island Department of Environmental Management (DEM).

### 1.3.2 OCTOBER 2005 REMEDIAL ACTION WORK PLAN

- CMG prepared a Remedial Action Work Plan (RAWP) for the relocation of soils impacted by PAHs and metals from the former Narragansett facility (the “Brewery”) located immediately south of the Site (across Cranston Street).
- CMG proposed relocating approximately 9,400 cubic yards of soil from the Brewery parcel to the Site for use as grading material across the rear two-thirds and covering it with clean fill. CMG also proposed isolating any potentially impacted Site soils underneath pavement and or clean fill (with no less than 2 foot of clean fill, or a layer of high visibility geotextile fabric overlain by at least one foot of clean fill in landscaped areas).
- During demolition of the Trolley Barn building following the May 2005 fire, construction personnel discovered two approximately 1,000-gallon steel USTs located near the western wall of the former building. Clean Environmental, Inc.(CEI) of Providence, Rhode Island supervised the removal of the USTs and assessed for environmental impacts.

---

<sup>1</sup> ppmv = parts-per-million by volume, calibrated “as benzene” in accordance with standard DEP and EPA protocols.

- CEI documented the removal of the USTs in their October 2005 “UST Closure Assessment Report, The Trolley Barn, 891 Cranston Street, Cranston, RI.” CEI indicated that both USTs were of single-wall steel construction with heavy corrosion and numerous holes. CEI reported that the USTs were for gasoline. They reported that both tanks were empty and in such poor condition that they were removed in pieces. CEI did not report observing any evidence of impact to soils surrounding the USTs and indicated that TOV readings from soils around and underneath the USTs did not exhibit TOV readings exceeding 1 ppmv.
- Results of post-excavation soil samples from the UST excavation indicated the presence of toluene at 0.039 mg/Kg, well below the applicable Method 1 Standards. CEI concluded that “no further investigation of the Site was warranted at that time.”

### 1.3.3 AUGUST 2021 PHASE I ESA BY EARTH SCIENCE

- Earth Science indicated that two USTs containing fuel oil were formerly located north of the Trolley Barn building and supplied fuel to the building’s heating system. The USTs were reportedly removed in 1992 or 1993. Two 1,000-gallon USTs containing gasoline were reportedly installed on October 9, 1984 and removed on October 6, 2005.
- They reviewed CMG’s 2005 RAWP; according to the RAWP, CMG proposed relocating soils impacted by PAHs and heavy metals from the main Narragansett Brewery plant (located south of the Site, across Cranston Street) to the northern and central portions of the Site. Approximately 9,400 cubic yards of soil were relocated as part of construction activities for the Cranston Police Headquarters building. The relocated soils impacted by PAHs and metals were reportedly placed at the Site beneath approximately 2' of clean soil.
- Earth Science identified an open Leaking Underground Storage Tank (LUST) case associated with the west/southwest-adjacent gas station and the known groundwater contamination from the west/southwest-adjacent gas station possibly impacting the subject property as a Recognized Environmental Condition (REC).
- They identified the soil impacted by PAHs and metals from the neighboring property which currently remain in-place at the Site beneath 2' of clean soil as a Controlled REC.
- Earth Science identified the closed UST case status associated with the former USTs at the Site as a Historical REC.

### 1.4 SCOPE OF WORK

This SMP describes future management of soils impacted by PAHs and (to a lesser extent) lead and arsenic during Site redevelopment activities. The attached Figure 4 Proposed Site Design illustrates the locations of future Site buildings and other pertinent features.

### 1.5 SCHEDULE OF WORK

First Hartford Realty Corporation (First Hartford) plans to begin the work at the Site as soon as possible.

## 2.0 SOIL MANAGEMENT PLAN

### 2.1 SOIL MANAGEMENT

Any such excavation at the Site is to be supervised by a qualified environmental professional or person(s) with direct knowledge of past and present conditions at the Site and will proceed as follows:

- Site personnel will restrict access to the Site prior to redevelopment activities. Fencing currently restricts access to the Site along the majority of the Site boundary. However, Site personnel will install additional fencing to encompass the entire Site perimeter.
- Soil excavated from the Site is to be stockpiled on polyethylene sheeting in a secure location.
- If excavated soil is to remain overnight, the stockpile must be covered with additional polyethylene sheeting and secured with appropriate controls to limit the loss of the cover and protect against the elements.
- Excavated soil may be used as backfill to grade beneath paved areas at the Site, or to within 1' of the ground surface in landscaped or other unpaved areas, provided the area is secured using a geotextile barrier. Site soil is not to be used as backfill material on any other property without sufficient analytical laboratory testing to support a conclusion that this soil would not violate DEM's Method 1 Soil Objectives.
- CMG and/or other qualified Site personnel will compare the quality of soil brought to the Site to serve as backfill or as part of soil encapsulation to DEM's RDEC. Samples representative of the off-Site soil supply (collected as discrete grab samples and/or multi-aliquot composites from the source) are to be tested for the following:
  - TPH by Method 8100;
  - VOCs by Method 8260;
  - Semi-volatile organic compounds (SVOCs) by Method 8270;
  - Polychlorinated biphenyls (PCBs) by Method 8082; and
  - Priority Pollutant 13 Metals (PP13) by Method 6010/7471.
- The frequency of sampling and testing for imported clean fill will be a full suite of analysis for every 2,000 cubic yards of soil and metals for every 500 cubic yards of soil. CMG will collect soil samples at the proposed source. Soils not meeting these criteria will be rejected for use at the Site.
- A licensed waste hauler will dispose of excess PAH and metals impacted soil off-Site at an appropriately licensed receiving facility under Bill of Lading (BOL) under Uniform Hazardous Waste Manifest procedures.

- CMG or the Site contractor will order the immediate cessation of all excavation activities if any buried drums, USTs, containers, or loose hazardous materials (i.e., asbestos, chemical powders or residues, etc.) are encountered during excavation activities.
- Adequate dust controls must be employed to minimize the potential for off-Site migration of fugitive dust or particulates. Such controls may include water spray when excavating in dry conditions. If it is not possible to eliminate visible dust or particulates during excavation, qualified personnel or his/her designee will conduct adequate dust monitoring to ensure worker and passerby health and safety.
- CMG will monitor background air quality readings prior to the start of soil excavation and construction related activities using a portable dust meter that measures respirable particulates (PM10). This pre-construction monitoring will serve as a baseline of existing background air quality conditions for subsequent monitoring of airborne particulates.
- The current National Ambient Air Quality Standards for particulate air pollution is 150 µg/m<sup>3</sup> as PM10 dust. Therefore, the action level during dust monitoring activities is 150 ug/m<sup>3</sup> for a continuous 5-minute period, above which construction activities will be suspended and dust control measures implemented until particulate levels recede below this limit.
- It is assumed that the particulates exceed the action level and corrective actions will be taken as soon as possible if visible dust levels occur as a result of Site activities.
- Dewatering during excavation activities is unlikely as Site groundwater ranges from 17-31' below ground surface.
- Site personnel should decontaminate footwear and any equipment used in soil excavation prior to leaving the Site.

### 3.0 CONTINGENCIES

#### 3.1 EMERGENCY CONTACTS/TELEPHONE NUMBERS

Hospital: Eleanor Slater Hospital 111 Howard Avenue Cranston RI 02920	401-462-3085
Fire: Cranston Fire Department	911 or 401-461-4227
Police: Cranston Police Department	911 or 401-942-2211
Ambulance	911 or 401-461-4227
Poison Control	1-800-222-1222
Department of Environmental Management	401-222-2797
Digsafe Clearance Number:	888-344-7233

3.2 PROJECT CONTACTS

COMPANY	RESPONSIBILITY	CONTACT	PHONE
First Hartford Realty Corporation	Site Owner	Shamus Finney	646-684-6555
CMG Environmental, Inc.	Environmental Field Oversight, Monitoring and Reporting	Stephen VanWormer	978-732-4478
		Gary Magnuson	508-320-0312
DiPrete Engineering	Civil Engineering, Site Design, Permitting	Dana Nisbet	917-807-5392
To Be Determined	Site Contractor	To Be Determined	To Be Determined
NOTE: SITE CONTACTS ARE SUBJECT TO CHANGE.			

4.0 PLAN APPROVAL/SIGNOFF

NAME	DATE	COMPANY	SIGNATURE
Benson R. Gould LSP #9923		CMG Environmental, Inc.	
Gary E. Magnuson		CMG Environmental, Inc.	
Stephen R. VanWormer		CMG Environmental, Inc.	

## FIGURES

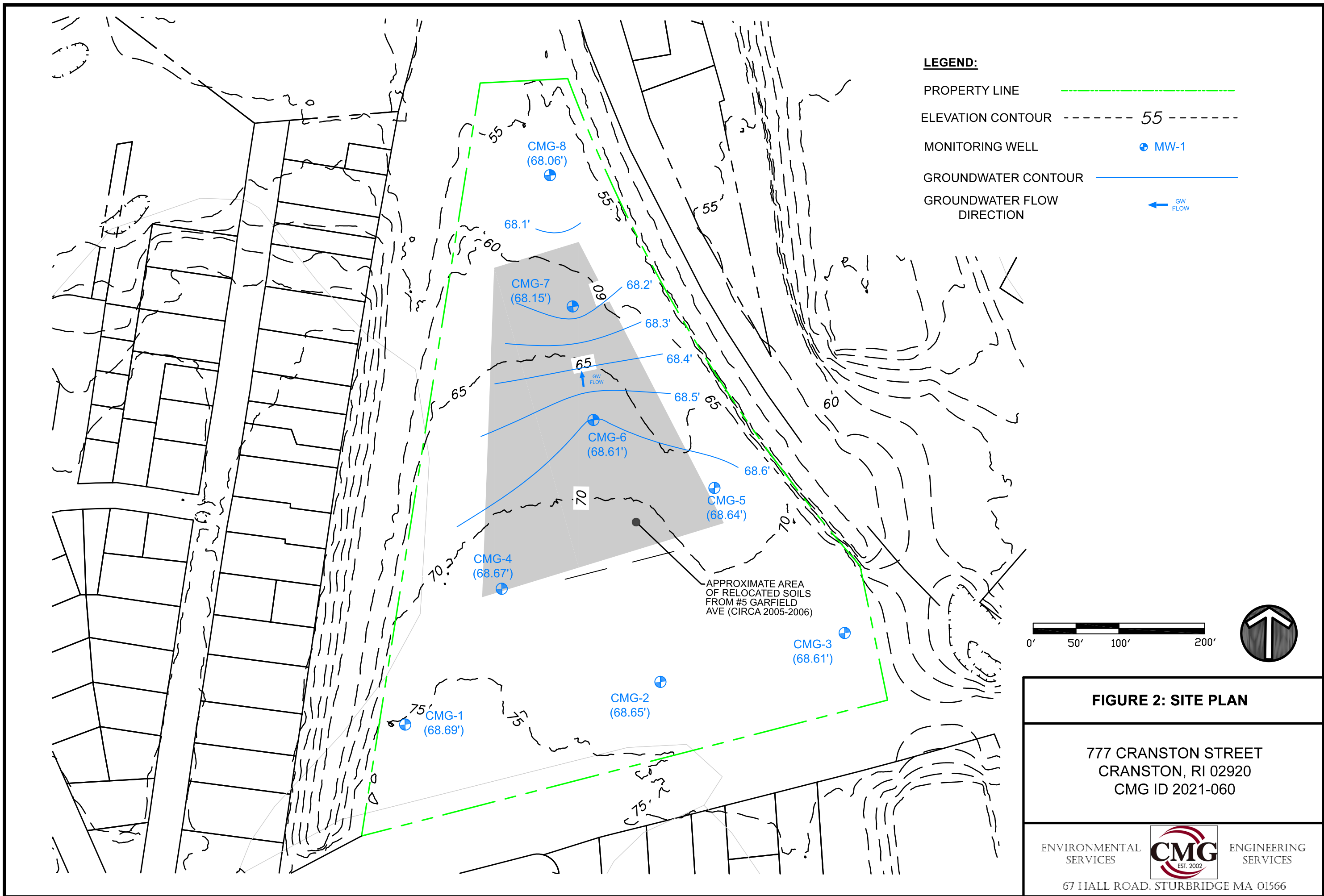
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FIGURE 2 – SITE PLAN

FIGURE 4 – PROPOSED SITE DESIGN





**FIGURE 2: SITE PLAN**

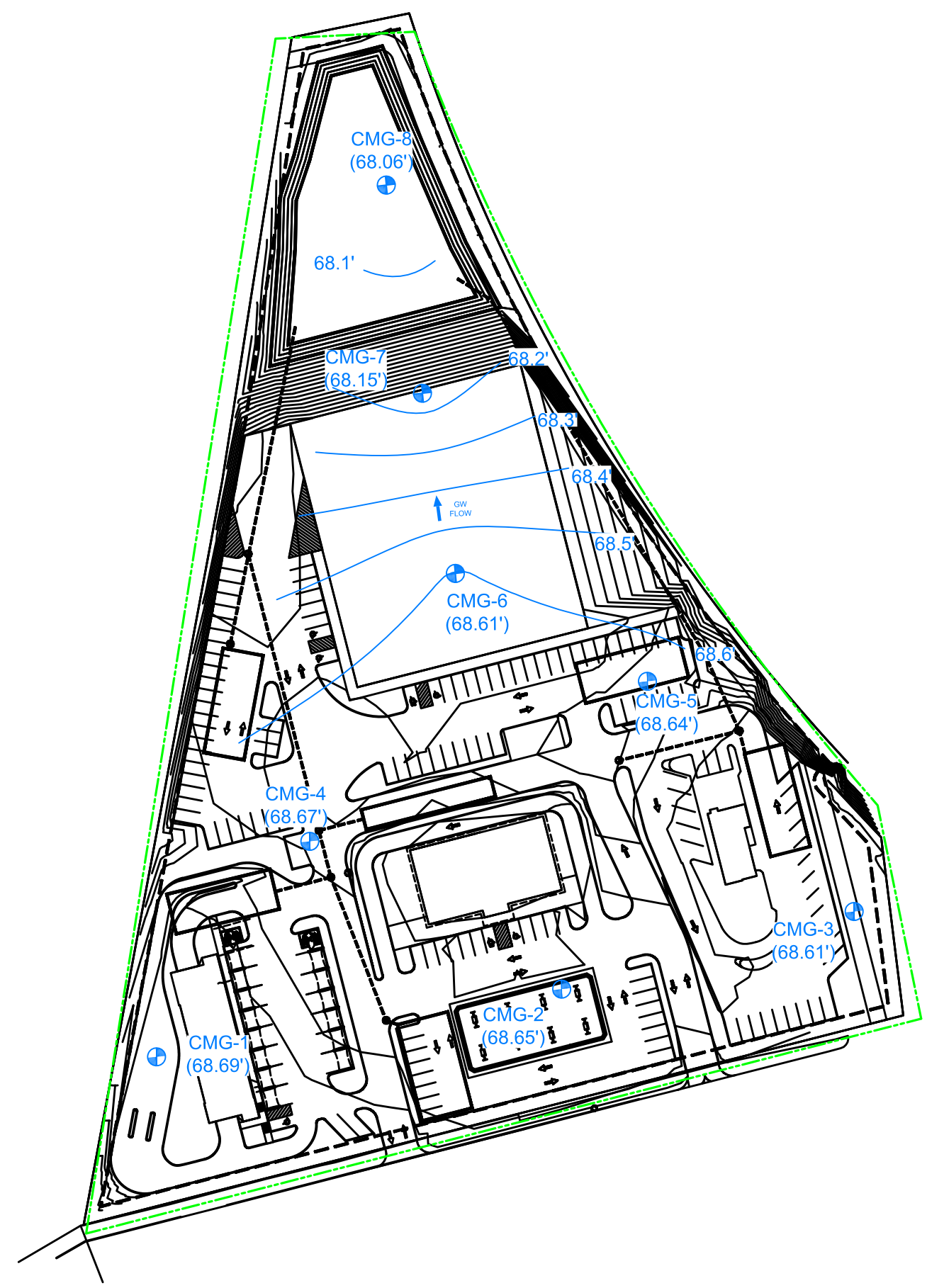
777 CRANSTON STREET  
 CRANSTON, RI 02920  
 CMG ID 2021-060

ENVIRONMENTAL  
 SERVICES



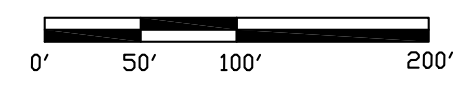
ENGINEERING  
 SERVICES

67 HALL ROAD, STURBRIDGE MA 01566



**LEGEND:**

- PROPERTY LINE -----
- EDGE OF PAVEMENT
- MONITORING WELL ⊕ MW-1
- GROUNDWATER CONTOUR —————
- GROUNDWATER FLOW DIRECTION ← GW FLOW



**FIGURE 4: PROPOSED SITE DESIGN (BY OTHERS)**

777 CRANSTON STREET  
 CRANSTON, RI 02920  
 CMG ID 2021-060

ENVIRONMENTAL SERVICES



ENGINEERING SERVICES

67 HALL ROAD, STURBRIDGE MA 01566

## APPENDIX D

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### OPERATING LOG

