September 15, 2023

Ms. Lisa Dunning
Task Order Contracting Officer's Representative
U.S. Environmental Protection Agency, Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

Subject: Contract No. 68HERH19D0018; Task Order No. 68HE0719F0190
Former Clinton Engines
605 and 607 East Maple Street, Maquoketa, Jackson County, Iowa
Phase II Environmental Site Assessment, Quarter 4

Dear Ms. Dunning:

Toeroek Associates, Inc. (Toeroek) and our teaming subcontractor, Tetra Tech, Inc. (Tetra Tech), (hereafter "Toeroek Team") are pleased to present the Phase II Environmental Site Assessment (ESA), Quarter 4 report regarding the Former Clinton Engines site at 605 and 607 East Maple Street in Maquoketa, Jackson County, Iowa.

This deliverable has been reviewed internally as part of Tetra Tech's quality assurance program, as well as Toeroek's quality assurance program, and is consistent with Toeroek's Quality Management Plan for the Resource Conservation and Recovery Act (RCRA) Enforcement and Permitting Assistance (REPA) contract. Documentation of this review is retained in the Toeroek Team's project files.

If you have any questions or comments, please contact Greg Hanna at 720-898-4102 or Kaitlyn Mitchell at 816-412-1742.

Sincerely,

Greg Hanna
Toeroek Team Program Manager

Kaitlyn Mitchell
Toeroek Team Project Manager

Enclosure Phase II ESA, Quarter 4

cc: Leeanna Balsley, EPA Region 7 (cover letter only)
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TARGETED BROWNFIELDS ASSESSMENT
PHASE II ENVIRONMENTAL SITE ASSESSMENT, QUARTER 4

FORMER CLINTON ENGINES
605 AND 607 EAST MAPLE STREET
MAQUOKETA, JACKSON COUNTY, IOWA

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 7

Task Order	:	68HE0719F0190
Subtask	:	09.03
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Date Prepared	:	September 15, 2023
Contract No.	:	68HERH19D0018
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CONTENTS

TABLES

APPENDICES

Appendix

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) tasked Toeroek Associates, Inc. (Toeroek) and its teaming subcontractor, Tetra Tech, Inc. (Tetra Tech) (together, the "Toeroek Team") with providing technical support to the EPA Region 7 Brownfields Program under Contract Number (No.) 68HERH19D0018, Task Order No. 68HE0719F0190. EPA Region 7 requested that the Toeroek Team conduct a Phase II Environmental Site Assessment (ESA) as part of a Targeted Brownfields Assessment of the Former Clinton Engines site (the Site). This Phase II ESA focuses on 605 and 607 East Maple Street in Maquoketa, Jackson County, Iowa, and the groundwater monitoring wells associated with the Site on surrounding properties (Appendix A, Figures 1 and 2).

The Toeroek Team did not conduct a Phase I ESA of the Site. The Toeroek Team developed the Phase II ESA based on results of the following previous investigations: (1) Missman, Stanley, & Associates P.C. (MSA) 1999 Phase I and II ESA (MSA 1999); (2) 2007 enrollment application submitted by the City of Maquoketa (City) for the Iowa Department of Natural Resources (IDNR) Land Recycling Program (LRP), including the Forest Road Consultants' 2006 Work Plan and TestAmerica analytical data (City 2007); (3) Impact7G, Inc. (Impact7G) 2013 Site Assessment, 2014 Site Assessment, and 2019 Supplemental Phase II ESA reports under direction from the IDNR LRP (Impact7G 2013, 2014, 2019); and (4) Superfund Technical Assessment and Response Team (START) 2021 Integrated Site Assessment (Tetra Tech 2021).

The scope of the Phase II ESA included collection of subsurface soil, groundwater, and soil-gas samples to determine plume dynamics and assess horizontal and vertical plume stability. Initial sampling and installation of monitoring wells occurred in October and November 2022. The Toeroek Team now is sampling these monitoring wells quarterly. This report details the fourth (Quarter 4) sampling event at the Site in August 2023.

This Phase II ESA, Quarter 4, report is consistent with ASTM International Standard E1903-19 for Phase II ESAs, and otherwise complies with EPA's "All Appropriate Inquiries" Rule (40 *Code of Federal Regulations* Part 312).

1.1 PURPOSE

Purposes of the Phase II ESA were to: (1) confirm or eliminate Recognized Environmental Conditions (RECs) identified during previous investigations; (2) acquire information regarding natures and concentrations of contaminants present at the Site in soil and/or groundwater; (3) assess potential impacts

on the Site and risks posed by hazardous substances that would support informed business decisions about the Site; and (4) where applicable, satisfy the innocent purchaser defense under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

1.2 SPECIAL TERMS AND CONDITIONS

No special terms or conditions were identified during the Phase II ESA.

2.0 BACKGROUND AND SITE HISTORY

This section specifies the location of the Site and its features, describes the physical setting, recounts the history of the Site, discusses land uses at the Site and adjacent properties, and relates results of previous investigations.

2.1 SITE DESCRIPTION AND FEATURES

The Site is in Maquoketa, Jackson County, Iowa. It is a former industrial site in a mixed-use area consisting of residential, agricultural, and commercial land. The Site encompasses three Jackson County parcels and approximately 10.86 acres of land (Beacon 2022). Coordinates at the approximate center of the Site are 42.065375 degrees north latitude and 90.657173 degrees west longitude. The Site is in Section 19, Township 84 North, Range 3 East, as depicted on the Maquoketa, Iowa, 7.5-minute topographic map (U.S. Geological Survey [USGS] 1980).

Beginning in approximately 1945, the Site hosted industrial operations that included production of small engines. The Clinton Engines Company (Clinton Engines) acquired the property in 1950 from the Maquoketa Company and continued production of small engines. During the 1999 Phase I and Phase II ESA, the machine shop, shipping and receiving, and one of the paint booths were in active use. The Phase I ESA report described other portions of the Site facility as dilapidated, with holes in the roof and walls and standing water. Former operations included a foundry and die casting. Apparent underground storage tanks (USTs), chemical storage rooms, and 55-gallon drums were noted in various areas (MSA 1999). Clinton Engines officially closed in 1999, and the property was donated to the City in 2000 (IDNR 2020). In 2004, the Jackson County Historical Society purchased the western parcel from the City (Beacon 2022). Review of aerial photographs indicated that most facility buildings had been razed by 2004, with only a former office/administration building left standing (Historic Aerials 2023). This building has been converted into the Clinton Engines Museum. Several buildings associated with the museum have been constructed at the Site after razing of the original manufacturing buildings.

2.2 PHYSICAL SETTING

The Site lies within Maquoketa city limits and is bounded north by East Maple Street, with commercial or industrial properties beyond; east by a metal barn/residence (at a former railroad grade) and a farm center; south by residential properties and farmland; and west by South Clark Street, with residential properties beyond. Elevation of the Site is approximately 700 feet above mean sea level (amsl), with a slight slope to

the north and northeast. Higher elevations are off site to the south and southwest, with elevations reaching approximately 750 feet amsl.

2.2.1 Geologic Setting

The Site is in the Central Lowlands physiographic province of the United States. Jackson County is in eastern Iowa near the boundary of the Southern Iowa Drift Plain and the Iowan Surface. Locally, a moderate loess cover overlies a thin glacial drift layer (City of Maquoketa & Alliance Water, Iowa Rural Water Association 2014). The Southern Iowa Drift Plain is characterized by a steeply rolling landscape, with the eastern part dominated by tabular uplands. Surfaces of the Southern Iowa Drift Plain are cut deeply into the Pre-Illinoisan glacial drift and are overlain by various thicknesses of Wisconsinan loess. The Iowan Surface is more eroded with gently sloping hills and valleys (Iowa Geological Survey [IGS] 2022a).

Soils at the former manufacturing area at the Site are characterized as urban land, and this generally flat area underwent previous alterations by constructions of buildings and parking lots and cut and fill to render the soil unidentifiable. The lawn area surrounding the museum to the northwest is classified as well-drained Worthen silt loam, with 2 to 5 percent slopes, that derived from silty alluvium. The railroad grade area to the east is classified as Orthents, loamy, with 1 to 5 percent slopes. Soils south and southwest of the Site (at higher elevations) are classified as Tama silt loams, driftless, with slopes of 5 to 14 percent, that derived from loess (U.S. Department of Agriculture [USDA] 2022).

In April 2014, Impact7G advanced two bore holes (BHs), BH-1 and BH-2, at the Site to obtain information about geology of the Site. BH-1 was in the south-central portion of the Site, and BH-2 was in the north-central part of the Site. BH-1 was advanced to 38 feet below ground surface (bgs), where the boring encountered carbonate (likely dolomite) bedrock. Materials logged in BH-1 were primarily silt with some clay layers. Interspersed in the silt and clay were fine and medium sands from 12 to 22, 29 to 30, and 35 to 37 feet bgs. BH-2 was advanced to 90 feet bgs and exposed primarily silt with clay from 75 to 90 feet bgs, at which depth carbonate (dolomite) bedrock was encountered. Fine to medium sands were logged from 18 to 25 and 58 to 64 feet bgs. The water table was encountered at depths ranging from 13 to 16 feet bgs (Impact7G 2014).

The IGS 1992 Guidebook 56 *Quaternary Drainage Evolution of the Maquoketa River Valley* identifies an ancient Maquoketa River channel underlying the City. Delineation of the channel was based on bedrock depths in the area that ranged to approximately 155 feet bgs. The ancient channel having depths

exceeding 100 feet bgs trends north-south to the central areas of the City, then trends northeast (Ludvigson, Bettis, and Hudak 1992). Alluvial deposits within the channel would be in lateral contact with shallower bedrock along the sides.

The bedrock geology map of northeast Iowa indicates that uppermost bedrock in the Maquoketa area consists of Silurian-aged Hopkinton and Blandings Formations, which constitute a 330-foot layer of fossil-moldic to vuggy dolomite with varying amounts of chert (IDNR 1998). During the Phase II ESA investigation, weathered, vuggy, fossiliferous dolomitic bedrock was encountered at depths ranging from 21 feet bgs at the Jackson County Fairgrounds, approximately 0.6 mile northeast of the Site, to 117 feet bgs, approximately 1,000 feet west of the Site.[1]

2.2.2 Hydrogeology

Silurian carbonate rocks make up the uppermost bedrock in the vicinity of the Site. The stratigraphic log for City Well 6, approximately 0.3 mile southwest of the Site, begins at 125 feet bgs in Silurian (undifferentiated) deposits and reaches a total depth of 2,325 feet (IGS 2022b). The Ordovician Maquoketa Formation (mainly shale), encountered from 245 to 270 feet bgs, is considered an aquitard protecting the underlying aquifers. Cambrian rocks below the St. Lawrence Formation (encountered at approximately 1,200 feet bgs) are indicated as the aquifer supplying City Wells 4, 5, and 6 (IGS 2022b).

Porous Silurian dolomites form the uppermost bedrock aquifer. In eastern and northern Iowa, average thickness is approximately 200 to 400 feet. Based on depth of the underlying Ordovician Maquoketa Formation listed for City Well 6, wells tapping this aquifer would be less than approximately 245 feet deep.

The Cambrian-Ordovician aquifer has been extensively developed for municipal and industrial supplies, and yields range from 100 to 2,300 gallons per minute (gpm). Yields of 1,000 gpm can be obtained in all but the easternmost part of the aquifer area if drawdown of water levels is not a major concern (USGS 1978).

The upper part of the Cambrian-Ordovician Aquifer consists of the Ordovician St. Peter Sandstone and Prairie du Chien Formation and the Cambrian Jordan Sandstone. Wells completed in the Jordan Sandstone typically produce at least 50 gpm, with yields up to 300 gpm; however, high yields generally depend on thickness and degree of cementation of the Jordan Sandstone (USGS 1978).

[1] Bedrock was encountered at 122 feet bgs approximately 750 feet south of the Site; however, elevation at this location is approximately 45 feet higher.

The lower part of the Cambrian-Ordovician Aquifer consists of three Cambrian formations (Wonewoc, Eau Claire, and Mt. Simon), collectively referred to as the "Dresbach" aquifer. Yields in the Dresbach aquifer range from 280 to 2,560 gpm, and the unit commonly yields at least 500 gpm. Yields are highest near Clinton, Iowa, decreasing westward, where water quality becomes poor. The Maquoketa area is an exception to this, as City Wells 4, 5, and 6 have high production capacities from this aquifer. Geologic data indicate this may be a result of faulting within the Plum River fault zone, bringing the higher quality water in the Jordan Sandstone into juxtaposition with the Galesville Sandstone Member of the Wonewoc Formation (City of Maquoketa & Alliance Water, Iowa Rural Water Association 2014).

2.2.3 Hydrology

Most of the Site is gently sloping (north and northeast) or flat with elevations of approximately 700 feet amsl. Higher elevations (approximately 750 feet amsl) are off site to the south and west, and lower elevations (approximately 680 feet amsl) are farther north and east, near the Maquoketa River (approximately 0.8 to 2 miles north of the Site) or Prairie Creek (approximately 0.8 mile east of the Site). Surface water likely flows into the stormwater sewer system or generally northeast toward Prairie Creek.

2.3 SUMMARY OF PREVIOUS ASSESSMENTS

In 1999, MSA conducted a Phase II ESA of the Site. Tables B-1, B-2, and B-3 in Appendix B summarize soil, groundwater, and soil-gas data for volatile organic compounds (VOCs) from that assessment. The 1999 Phase II ESA found concentrations of chlorinated VOCs (CVOCs), as well as benzene, toluene, ethylbenzene, and xylenes (BTEX) in groundwater and soil that exceeded risk-based screening levels and, for groundwater, EPA Maximum Contaminant Levels (MCLs).

On May 23, 2005, IDNR notified the City regarding the transfer of the Site to the Contaminated Sites Section within IDNR (IDNR 2005a). Results from an Initial Site Screening, completed on June 2, 2005, indicated the need for additional investigations at the Site (IDNR 2005b). The Site was enrolled in the IDNR Voluntary LRP in April 2008. According to the Voluntary LRP enrollment application, additional Site investigation activities occurred in 2006 (City 2007). Analytical results from the 2006 sampling event are in Table B-1 and Table B-2 in Appendix B.

The 2006 groundwater sampling event at the Site found elevated concentrations of BTEX and CVOCs. Further, the enrollment application included information pertaining to removal of three additional USTs (two 20,000-gallon diesel tanks and one 8,000-gallon tank of unidentified contents) from 2001 to 2002 (City 2007).

Since 2006, further Site assessment activities have been sporadic, focusing primarily on delineation of extents of on-site and off-site groundwater contamination and on-site vapor intrusion (VI). CVOCs at the following maximum concentrations have been detected in groundwater samples from on-site groundwater monitoring wells and off-site temporary wells as far as 900 feet north-northwest of the Site:

- Trichloroethene (TCE) at 9,580 micrograms per liter (µg/L), off-site temporary well;
- *cis*-1,2-Dichloroethene (DCE) at 7,190 µg/L, off-site temporary well;
- *trans*-1,2-DCE at 1,044 µg/L, off-site temporary well;
- 1,1,2-Trichloroethane (TCA) at 132 µg/L, off-site temporary well;
- Vinyl chloride (VC) at 319 µg/L, off-site temporary well; and
- Toluene at 247,000 µg/L, on-site groundwater monitoring well (Impact7G 2019).

Additional Site investigation activities in 2013 included sampling of groundwater monitoring wells that had been installed during previous investigations (Impact7G 2013). Available groundwater and soil data are in Table B-1 and Table B-2 in Appendix B.

Given the elevated CVOCs concentrations in groundwater, IDNR required indoor VI sampling at the museum (IDNR 2014). Sub-slab samples collected at the museum in 2014 and 2015 yielded TCE at concentrations above risk-based screening levels. In response, cracks in the museum basement were repaired, chemicals stored in the basement were relocated, and the sump pit area was passively vented. In December 2019, follow-up indoor air sampling at the museum documented indoor air exceedances above risk-based screening levels. As a result, energy recovery ventilators were installed at the museum in September 2020 (IDNR 2020). Available VI sampling results for selected VOCs are in Table B-3 in Appendix B.

IDNR requested federal assistance in a letter dated February 17, 2020, regarding potential impacts of off-site groundwater contamination on nearby residential and commercial properties (IDNR 2020). IDNR also requested assistance related to VI sampling at surrounding properties near areas of known groundwater contamination to further determine potential impacts (Tetra Tech 2021).

In 2020 and 2021, Tetra Tech, under its START contract, collected indoor air, soil-gas, soil, and drinking water samples at the Site and at nearby residential and commercial properties. No CVOCs were detected in soil gas. No VOC was detected in soil, sub-slab vapor, or indoor air at concentration exceeding an associated removal management level. No VOC was detected in drinking water at concentration exceeding an associated EPA MCL (Tetra Tech 2021).

The 2022 Phase II ESA conducted by the Toeroek Team included soil, groundwater, and soil-gas sampling (Toeroek Team 2023a). Toluene was detected in 17 of the 21 subsurface soil samples, mostly at low concentrations (estimated at less than 1.0 microgram per kilogram [µg/kg]) where no other fuel-related VOCs were present, suggesting possible laboratory contamination. High toluene concentrations (greater than 100 µg/kg) detected in samples MW-1B (19 to 21 ft bgs) and MW-8B (14 to 16 ft bgs) were found with other fuel-related VOCs. TCE concentrations in five on-site soil samples exceeded EPA's Regional Screening Levels (RSLs) for both residential and industrial soils. No other analyte concentration in any soil sample exceeded an associated RSL. No analyte concentration in any sample exceeded an associated IDNR Statewide Standard (SWS) for soils (Toeroek Team 2023a).

In October and November 2022, during the Phase II ESA, the Toeroek Team installed 17 groundwater monitoring wells, including four bedrock wells, seven delineation wells, and six vertical gradient wells. The bedrock wells were designed to assess deeper groundwater at a greater distance from the Site. The delineation wells were to delineate horizontal plume boundaries, and the vertical gradient wells were designed to characterize vertical contamination profiles paired with data from pre-existing shallower monitoring wells (Toeroek Team 2023a). Groundwater was not encountered at the proposed location of monitoring well MW-5; therefore, well installation was not completed at this location. Approximate locations of groundwater monitoring wells are depicted on Figure 2 in Appendix A.

Groundwater samples were collected from the 17 monitoring wells installed by the Toeroek Team in November 2022 using low-flow sampling techniques. After collection of each sample, a passive diffusion bag (PDB) was hung within the well in the middle of the screened interval of each well for future sampling. Table 1 below summarizes information regarding the monitoring wells installed during the November 2022 sampling event. Sampling data from the 2022 Phase II ESA are in Table B-4 through Table B-6 in Appendix B.

TABLE 1

GROUNDWATER MONITORING WELL SUMMARY
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

Sample Identification	Screened Interval (ft bgs)	Measured Depth (ft btoc)	Initial Depth to Water* (ft btoc)	Top of Casing Elevation (ft amsl)	Initial Groundwater Elevation* (ft amsl)
Vertical Gradient Wells					
MW-1B	42-52	52.22	18.47	697.310	678.84
MW-2B	47-57	56.74	16.11	693.835	677.73
MW-3B	47-57	56.87	21.04	699.182	678.14
MW-4B	47-57	60.22**	28.69	702.532	673.84
MW-6B	41-51	53.74**	21.91	700.082	678.17
MW-8B	43-53	52.79	13.57	691.144	677.57
Delineation Wells					
MW-9	46-56	53.89	14.71	693.648	678.94
MW-10A	47-57	57.06	11.81	689.654	677.84
MW-10B	63-73	72.70	13.67	689.398	675.73
MW-11	40-50	52.83**	18.16	701.474	683.31
MW-12	35-45	44.60	6.39	684.200	677.81
MW-13	33-43	42.51	NA	680.000	NA
MW-14	50-60	60.34	11.69	679.283	667.59
Bedrock Wells					
MW-101	117-127	128.15	24.38	702.415	678.04
MW-102	125-135	136.79	63.54	744.429	680.89
MW-103	27-37	36.96	16.04	679.851	663.81
MW-104	77-87	85.78	17.39	684.785	667.40

Notes:

* Measured in November 2022 immediately following installation and development.

** Monitoring wells MW-4B, MW-6B, and MW-11 have aboveground completions; remaining wells are flush-mount.

No well was installed in the boring advanced for MW-5B because a deeper groundwater zone was not encountered.

amsl	Above mean sea level	FD	Field duplicate
bgs	Below ground surface	ft	Feet
btoc	Below top of casing	MW	Monitoring well

TCE and its common degradation products were detected in all on-site monitoring wells except MW-11, near the southeast corner of the Site. TCE concentrations exceeded the MCL in 11 of the on-site groundwater samples. In seven of 11 groundwater samples, TCE concentrations also exceeded the IDNR SWS for a non-protected groundwater source. Typically, where TCE levels exceeded these benchmarks, concentrations of *cis*-1,2-DCE and VC also exceeded benchmarks. The highest CVOC concentrations were detected in groundwater samples from on-site monitoring wells MW-8B, MW-10A, and MW-10B, and from the off-site monitoring well MW-12. Slightly lower concentrations were detected in MW-10B (screened from 63 to 73 feet bgs) than in MW-10A (screened from 47 to 57 feet bgs), suggesting the separating zone has not significantly retarded downward migration. In addition, low levels of the following

were detected in several on-site groundwater samples: 1,1,1-TCA; 1,1,2-TCA; 1,1-dichloroethane (DCA); and tetrachloroethene (PCE).

No VOCs were detected in samples from upgradient bedrock monitoring wells MW-101 and MW-102, west and south of the Site, respectively. Groundwater from MW-103 and MW-104, northeast and downgradient of the Site, contained TCE and 1,2-DCE, but at concentrations below MCLs. At MW-104, bedrock was encountered at 71 feet bgs, and screening occurred from 77 to 87 feet bgs. In contrast, encounter with bedrock at MW-103, approximately 1,500 feet to the east, occurred at 21 feet bgs, and screening was from 27 to 37 feet bgs. The porous shallow bedrock is likely in lateral contact with contaminated groundwater in the sandy alluvial deposits.

Fuel-related VOCs (or constituents of petroleum solvents) were detected in nine groundwater samples, with benzene concentration exceeding the MCL in three samples (MW-1B, MW-8B, and MW-10A). No other concentration of a fuel-related VOC exceeded an associated MCL, and none exceeded an IDNR SWS for non-protected groundwater.

VOCs were detected in all soil-gas samples collected by the Toeroek Team from borings co-located to each respective monitoring well during the November 2022 sampling event. Detected TCE concentrations in soil-gas samples collected at MW-2B, MW-3B, MW-8B, MW-9, MW-10A/B, and MW-11 exceeded the EPA residential Vapor Intrusion Screening Level (VISL). Except for MW9-SG and MW10-SG, TCE concentrations also exceeded the commercial VISL. Soil-gas samples near monitoring wells in roadways were collected within the nearby easement. Numerous fuel-related VOCs were detected in the soil-gas samples; however, no concentration exceeded a VISL benchmark (Toeroek Team 2023a).

During the Quarter 2 sampling event in February 2023, groundwater samples were collected from the 17 on-site monitoring wells (Toeroek Team 2023b). TCE was detected in 14 of 17 samples, with concentrations exceeding the EPA MCL in eight samples. PCE was detected in three samples, with one of those samples at a concentration exceeding the MCL. *Cis*- or *trans*-1,2-DCE was detected in all samples except four—with *cis*-1,2-DCE concentrations exceeding the MCL in nine samples and *trans*-1,2-DCE at a concentration exceeding the MCL in one sample. VC was detected in 10 samples—with eight samples containing concentrations exceeding the MCL. Results of the February 2023 sampling are in Table B-7 in Appendix B.

During the Quarter 3 sampling event in May 2023, groundwater samples were collected from the 17 on-site monitoring wells (Toeroek Team 2023c). TCE was detected in 14 of 17 samples, with

concentrations exceeding the EPA MCL in nine samples. PCE was detected in only one sample, and the concentration exceeded the MCL. *Cis*- or *trans*-1,2-DCE was detected in all samples except four—with *cis*-1,2-DCE concentrations exceeding the MCL in eight samples and *trans*-1,2-DCE concentrations exceeding the MCL in one sample. VC was detected in 12 samples—with eight samples at concentrations exceeding the MCL. Results of the May 2023 sampling are in Table B-8 in Appendix B.

3.0 PHASE II ENVIRONMENTAL SITE ASSESSMENT ACTIVITIES

The following subsections describe the scope, field exploration, and methods implemented during the Phase II ESA, Quarter 4 sampling event. On August 17, 2023, Toeroek Team members, Macy La Masney and Clay Weiss, sampled 17 groundwater monitoring wells previously installed by the Toeroek Team in October and November 2022. Field activities were documented in a logbook (Appendix C).

3.1 SCOPE OF THE ASSESSMENT

The Toeroek Team performed environmental sampling to determine if subsurface soils, groundwater, and soil gas are contaminated by historical activities at the Site. Sampling was consistent with the EPA-approved Quality Assurance Project Plan (QAPP) (Toeroek Team 2022).

3.1.1 Sampling Plan

The proposed sampling scheme for this project incorporated a combination of biased/judgmental sampling with definitive laboratory analysis, in accordance with procedures included in the *Guidance for Performing Site Inspections Under CERCLA* (Office of Solid Waste and Emergency Response [OSWER] Directive #9345.1-05, September 1992). The objective of groundwater sampling was to characterize possible releases to the environment. Figure 2 in Appendix A depicts sampling locations at the Site. One groundwater sample was collected at each of the 17 permanent groundwater monitoring well locations: MW-1B, MW-2B, MW-3B, MW-4B, MW-6B, MW-8B, MW-9, MW-10A, MW-10B, MW-11, MW-12, MW-13, MW-14, MW-101, MW-102, MW-103, and MW-104. Two samples were collected as field duplicate pairs—one from MW-13 (identified as MW-X on the chain-of-custody) and the other from MW-10B (identified as MW-Y on the chain-of-custody).

3.1.2 Chemical Testing Plan

Laboratory analytes were selected based on contaminants commonly associated with current and historical uses of the Site and results from previous investigations. Samples were submitted to Pace Analytical (Pace) in Lenexa, Kansas, for VOC analysis via EPA Method 8260.

3.1.3 Deviations from the QAPP

No deviations from the QAPP occurred during the Phase II ESA, Quarter 4 sampling event. In February 2023, the QAPP was amended to specify use of PDBs for future sampling events.

3.2 FIELD ACTIVITIES

Field activities occurred at the Site on August 17, 2023. Groundwater samples were submitted to Pace on August 18, 2023. The following subsections summarize groundwater sample collection activities. Sampling locations are depicted on Figure 2 in Appendix A.

3.2.1 Groundwater Sampling

Groundwater samples were collected from PDBs previously hung in each well after the Quarter 3 sampling event. Depth to groundwater was measured at each sample location. Groundwater at the Site was encountered between 7 and 64 feet bgs. After completion of sampling at each location, a new PDB was attached to each well's dedicated tether and lowered back into the well for the Quarter 5 sampling event, anticipated for November 2023.

Groundwater samples were analyzed for low-level VOCs via EPA Method 8260. Samples were collected into three 40-milliliter vials preserved with hydrochloric acid. Table 2 below summarizes groundwater samples collected during the Phase II ESA, Quarter 4 sampling event.

TABLE 2

GROUNDWATER LEVEL AND SAMPLE SUMMARY, QUARTER 4 (AUGUST 2023)
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

Location ID(s)	Sample Date and Time*	Depth to Groundwater (ft btoc)	Static Water Level (ft amsl)
Vertical Gradient Wells			
MW-1B	1452	19.28	678.03
MW-2B	1352	16.70	677.14
MW-3B	1505	21.80	677.38
MW-4B	1324	17.91	684.62
MW-6B	1312	22.45	677.63
MW-8B	1405	14.39	676.75
Delineation Wells			
MW-9	0935	15.63	678.02
MW-10A	1418	12.52	677.13
MW-10B/MW-Y	1430	14.34	675.06
MW-11	1335	18.42	683.05
MW-12	1145	7.44	676.76
MW-13/MW-X	1120	7.81	672.19
MW-14	1045	11.85	667.43
Bedrock Wells			
MW-101	0652	25.11	677.31
MW-102	0915	64.09	680.34
MW-103	1030	16.58	663.27
MW-104	1058	18.10	666.69

Notes:

* All samples collected on August 17, 2023

EPA U.S. Environmental Protection Agency
ft amsl Feet above mean sea level
ft btoc Feet below top of casing
ID Identification
MW Monitoring well

3.2.2 Quality Control Sampling

Field quality control (QC) samples for this investigation included one laboratory-supplied aqueous trip blank, one field blank, and two groundwater field duplicates (one collected at each of MW-10B and MW-13). Pace analyzed the QC samples for VOCs. Analytical data from the field blanks were used to evaluate contamination of sampling containers or sample preservatives, and assess contamination potentially introduced during sampling and laboratory procedures. Two groundwater field duplicates were collected to determine total method precision. Analytical results from field duplicate samples were used to calculate relative percent differences (RPDs) between paired results for each reported analyte. The RPDs served for informational purposes only. Analytical accuracy was determined via analysis of

laboratory-prepared spikes and duplicates. Calculated RPDs are discussed with the applicable data validation report in Appendix D.

4.0 EVALUATION AND PRESENTATION OF RESULTS

The following subsections present analytical data from groundwater samples collected during the Phase II ESA, Quarter 4 sampling event. Sample results from this ESA were compared to EPA MCLs (EPA 2023) and to IDNR SWSs for Non-Protected Groundwater (IDNR 2023). IDNR SWSs for Protected Groundwater are EPA MCLs. Copies of analytical data packages and data validation reports are in Appendix D.

4.1 GROUNDWATER SAMPLES

Groundwater samples were collected from 17 groundwater monitoring wells installed by the Toeroek Team in October and November 2022. Two duplicate pairs were collected. Samples were submitted to Pace for analyses for VOCs. The contaminants are listed in Table 3 in the following order: miscellaneous VOCs, Site-related CVOCs, and fuel-related VOCs. CVOCs are followed by their common degradation products.

The following groundwater samples yielded concentrations of VOCs exceeding one or more regulatory benchmarks:

- TCE was detected at concentrations exceeding the EPA MCL of 5 µg/L and the IDNR SWS for non-protected groundwater of 76 µg/L in samples from MW-2B, MW-8B, MW-9, MW-10A, MW-10B, and MW-12. The concentration of TCE in MW-3B only exceeded the EPA MCL, and the concentration of TCE in the sample from MW-4 was detected at the EPA MCL.

- *cis*-1,2-DCE was detected at concentrations exceeding the EPA MCL of 70 µg/L and the IDNR SWS for non-protected groundwater of 350 µg/L in samples from MW-8B, MW-10A, and MW-10B. Concentrations of *cis*-1,2-DCE in samples from MW-1B, MW-3B, MW-9, and MW-12 exceeded only the EPA MCL.

- *trans*-1,2-DCE was detected at a concentration exceeding the EPA MCL of 100 µg/L in the sample from MW-8B. The concentration did not exceed the IDNR SWS for non-protected groundwater of 700 µg/L.

- VC was detected at concentrations exceeding the EPA MCL of 2 µg/L and the IDNR SWS for non-protected groundwater of 10 µg/L in samples from MW-8B, MW-10A, and MW-10B. Concentrations of VC in samples from MW-1B and MW-3B exceeded only the EPA MCL.

- Benzene was detected at a concentration exceeding the EPA MCL of 5 µg/L in the sample from MW-8B. The concentration did not exceed the IDNR SWS for non-protected groundwater of 64 µg/L.

No other chemical of concern was detected at a concentration exceeding a regulatory benchmark in any other well. Several chemicals detected, such as acetone, 2-butanone, methylene chloride, and toluene, are

common laboratory contaminants; these are not discussed further. Duplicate sample MW-Y, collected from MW-10B, contained low levels of various CVOCs not reported in the MW-10B sample, analysis of which required a higher detection limit (50 µg/L). Table 3 below lists all pertinent VOC detections in groundwater. Figure 3 in Appendix A shows VOC exceedances of IDNR SWSs or EPA MCLs or RSLs in groundwater.

TABLE 3

DETECTED VOC RESULTS FROM GROUNDWATER SAMPLES, QUARTER 4 (AUGUST 2023)
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

Sample Identification	Screened Interval (ft bgs)	Carbon Tetrachloride	Bromochloromethane	Chloroform	Chloromethane	1,1,1-TCA	1,1,2-TCA	1,2-DCA	1,1-DCA	PCE	TCE	1,1-DCE	1,2-DCE (Total)	*cis*-1,2-DCE	*trans*-1,2-DCE	Vinyl Chloride	Chloroethane	Benzene	*sec*-Butylbenzene
		EPA MCL or EPA RSL (TR=1E-6, THQ=0.1) Tap water																	
		5	80*	80*	19**	200	5	5	2.8**	5	5	7	NE	70	100	2	NE	5	200**
		IDNR SWSs for Non-Protected Groundwater																	
		50	450	400	NE	70,000	61	38	700	1,700	76	180	NE	350	700	10	14,000	64	NE
MW-1B	42-52	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.91 J	ND	94.0	**92.7**	1.3	**7.2**	1.6	0.25 J	ND
MW-2B	47-57	ND	ND	ND	0.36 J	ND	ND	ND	ND	ND	**147**	ND	38.7	37.2	1.5	0.28 J	ND	0.14 J	ND
MW-3B	47-57	ND	ND	7.6	ND	ND	ND	ND	ND	ND	**65.0**	ND	192	**189**	2.8 J	**8.2**	ND	ND	ND
MW-4B	47-57	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.0**	ND	2.5	2.3	0.20 J	0.44 J	ND	ND	ND
MW-6B	41-51	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.6	ND	0.91 J	0.91 J	ND	ND	ND	ND	ND
MW-8B	43-53	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8,900**	ND	11,300	**10,800**	**470**	**248**	ND	**23.4 J**	ND
MW-9	46-56	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1,120**	ND	79.8	**74.9**	4.9 J	ND	ND	ND	ND
MW-10A	47-57	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6,700**	ND	2,700	**2,670**	27.6 J	**136**	ND	ND	ND
MW-10B	63-73	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3,680**	ND	822	**816**	6.2 J	**18.0 J**	ND	ND	ND
MW-10B duplicate (MW-Y)		0.99 J	ND	2.9	ND	2.2	0.46 J	0.45 J	0.90 J	1.5	**3,480**	4.6	784	**779**	4.3 J	**21.0**	0.61 J	1.7	0.11 J
MW-11	40-50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-12	35-45	ND	ND	ND	0.50 J	ND	ND	0.50 J	0.66 J	ND	**334**	ND	233	**148**	85.6	1.0	ND	0.22 J	ND
MW-13	33-43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.6	10.5	0.14 J	0.97 J	ND	ND	ND
MW-13 duplicate (MW-X)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.4	10.4	ND	0.85 J	ND	ND	ND
MW-14	50-60	ND	0.30 J	ND	0.63 J	ND	ND	ND	ND	ND	1.5	ND	35.9	30.0	5.8	0.26 J	ND	ND	ND
MW-101	117-127	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-102	125-135	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-103	27-37	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.83 J	ND	ND	ND	ND	ND	ND	ND	ND
MW-104	77-87	ND	ND	ND	0.45 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

All values are in micrograms per liter (µg/L).

* MCL for total trihalomethanes.
** RSL for tap water is listed

Bold font indicates a value exceeds or meets the MCL or RSL.
Shading indicates a value exceeds the IDNR SWS for non-protected groundwater.
The common laboratory contaminants acetone and 2-butanone were detected but are not listed.

TABLE 3 (Continued)

DETECTED VOC RESULTS FROM GROUNDWATER SAMPLES, QUARTER 4 (AUGUST 2023)
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

EPA	U.S. Environmental Protection Agency
DCA	Dichloroethane
DCE	Dichloroethene
ft bgs	Feet below ground surface
IDNR	Iowa Department of Natural Resources
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MCL	Maximum Contaminant Level
MW	Monitoring well
ND	Not detected
NE	Not established
PCE	Tetrachloroethene
RSL	Regional Screening Level
SWS	Statewide Standard
TCA	Trichloroethane
TCE	Trichloroethene
THQ	Target hazard quotient
TR	Carcinogenic risk
VOC	Volatile organic compound

4.2 QUALITY CONTROL SAMPLES

Pace analyzed QC samples for VOCs. No VOCs were detected in the trip blank or the field blank. Duplicate results were within acceptance limits, rendering those data reliable.

5.0 DISCUSSION OF SIGNIFICANT FINDINGS AND CONCLUSIONS

This section summarizes significant findings and offers conclusions regarding the Phase II ESA, Quarter 4 sampling event.

CVOCs known to have impacted groundwater at the Site were detected in all on-site groundwater samples except from MW-11. CVOCs were detected in off-site groundwater samples from all wells except upgradient bedrock groundwater monitoring wells MW-101 and MW-102. TCE and its degradation products were detected at concentrations exceeding the IDNR SWS for non-protected groundwater in on-site groundwater monitoring wells MW-2B, MW-8, MW-9, MW-10A, and MW-10B. TCE exceeded or met EPA MCLs in on-site groundwater monitoring wells MW-3B and MW-4. Off-site groundwater monitoring well MW-12 yielded TCE and *cis*-1,2-DCE concentrations exceeding MCLs; TCE concentration also exceeded the IDNR SWS for non-protected groundwater (protected groundwater SWSs are MCLs, if established). The sample from MW-8B yielded benzene, a fuel-related VOC, at a concentration exceeding the MCL.

The following groundwater samples contained concentrations of VOCs exceeding a regulatory benchmark:

- TCE was detected at concentrations exceeding the EPA MCL of 5 µg/L and the IDNR SWS for non-protected groundwater of 76 µg/L in samples from MW-2B, MW-8B, MW-9, MW-10A, and MW-10B, and MW-12. The concentration of TCE in MW-3B only exceeded the EPA MCL, and the concentration of TCE in the sample from MW-4 was detected at the EPA MCL.

- *cis*-1,2-DCE was detected at concentrations exceeding the EPA MCL of 70 µg/L and the IDNR SWS for non-protected groundwater of 350 µg/L in samples from MW-8B, MW-10A, and MW-10B. Concentrations of *cis*-1,2-DCE in samples from MW-1B, MW-3B, MW-9, and MW-12 exceeded only the EPA MCL.

- *trans*-1,2-DCE was detected at a concentration exceeding the EPA MCL of 100 µg/L in the sample from MW-8B. The concentration did not exceed the IDNR SWS for non-protected groundwater of 700 µg/L.

- VC was detected at concentrations exceeding the EPA MCL of 2 µg/L and the IDNR SWS for non-protected groundwater of 10 µg/L in samples from MW-8B, MW-10A, and MW-10B. Concentrations of VC in samples from MW-1B and MW-3B exceeded only the EPA MCL.

- Benzene was detected at a concentration exceeding the EPA MCL of 5 µg/L in the sample from MW-8B. The concentration did not exceed the IDNR SWS for non-protected groundwater of 64 µg/L.

- No other chemical of concern was detected at a concentration exceeding a regulatory benchmark.

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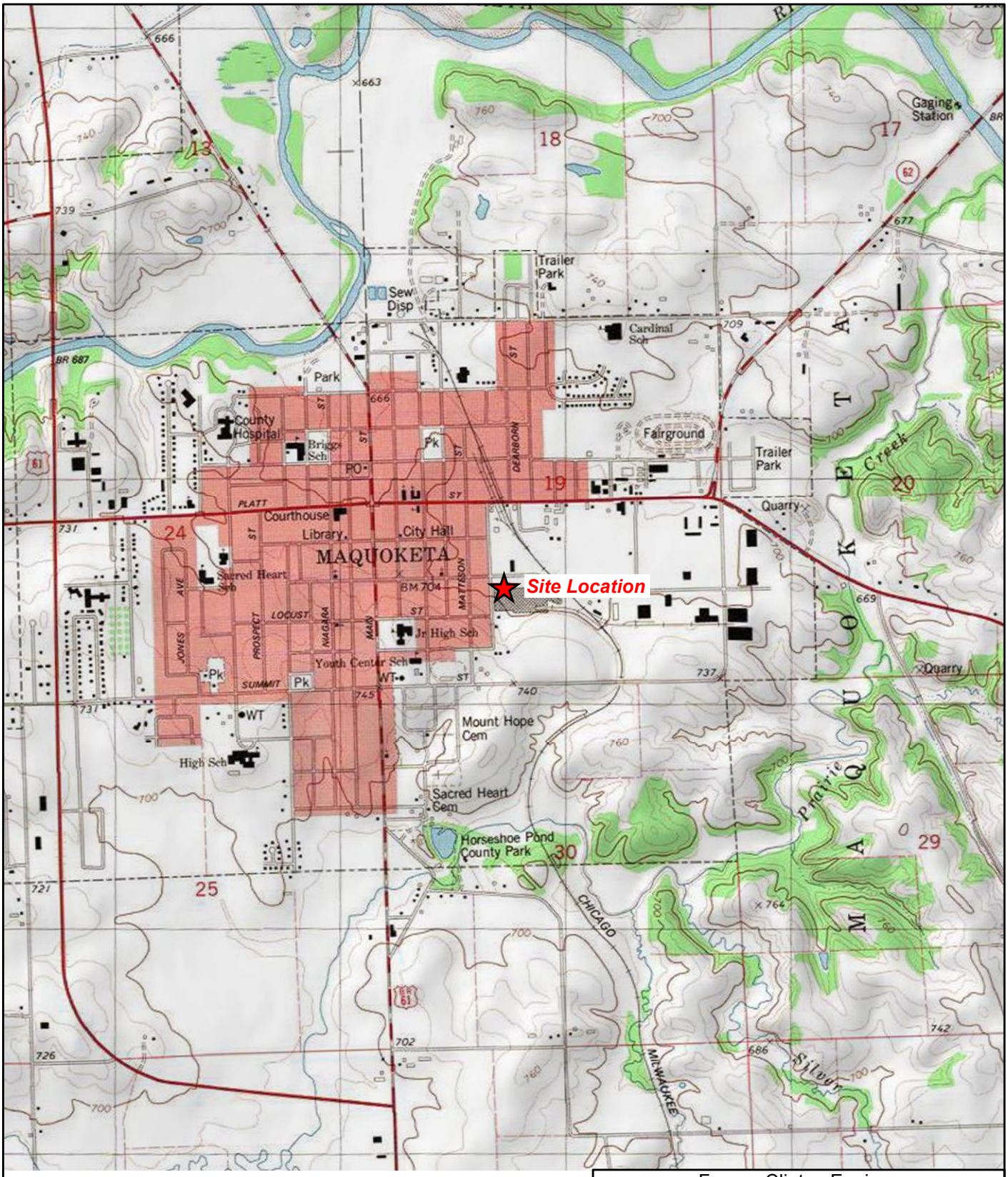
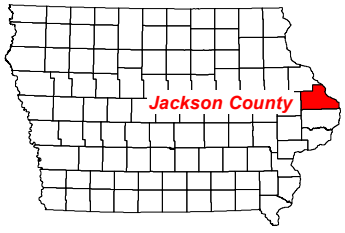
APPENDIX A

FIGURES

FIGURE 1
SITE LOCATION MAP





N

0 1,000 2,000

Feet

Source: Maquoketa, Iowa USGS 7.5 Minute Topo Quad, 1980

Former Clinton Engines
605 and 607 East Maple Street
Maquoketa, Jackson County, Iowa

Figure 1
Site Location Map

TETRA TECH

TOEROEK ASSOCIATES, INC.

Date: 1/12/2023 Drawn By: Nick Wiederholt Project No: 103G6521.0190.09.03

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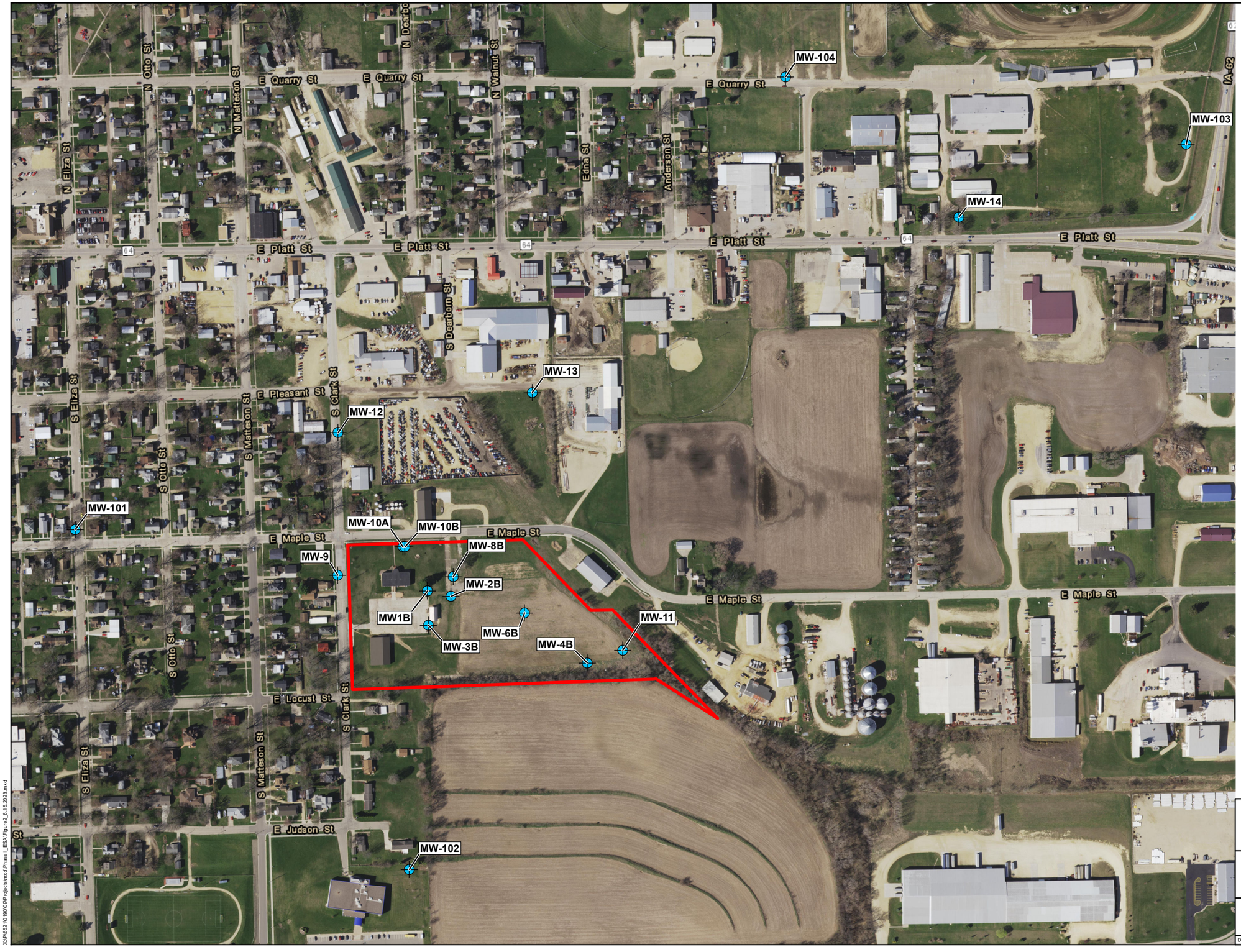
FIGURE 2
PHASE II ESA Q4 SAMPLING LOCATIONS



Legend

- Monitoring well sample location
- Approximate site boundary

N

0 175 350

Feet

Source: Iowa State University GIS Support and Research Facility, Iowa Geogrpahic Map Server, Aerial Imagery, 2016 - 2018

Former Clinton Engines
605 and 607 East Maple Street
Maquoketa, Jackson County, Iowa

Figure 2

Phase II ESA Q4 Sampling Locations

TETRA TECH

TOEROEK ASSOCIATES, INC.

Date: 6/15/2023 Drawn By: Nick Wiederholt Project No: 103G6521.0190.09.03

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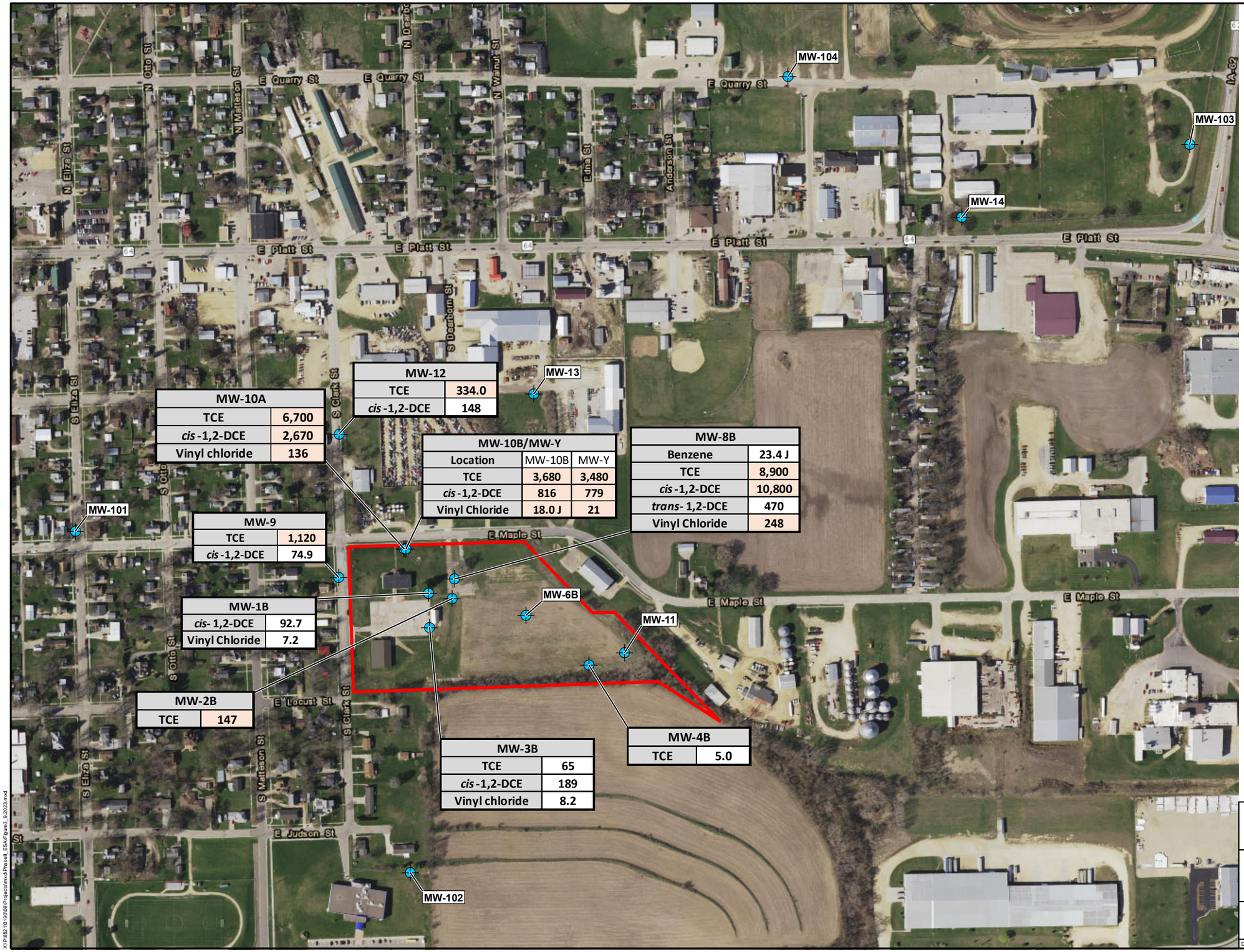
FIGURE 3
VOC EXCEEDANCES IN GROUNDWATER



Legend

- Monitoring well sample location
- Approximate site boundary

Notes:

DCE: Dichloroethene
EPA: U.S. Environmental Protection Agency
IDNR: Iowa Department of Natural Resources
J: Estimated concentration
MCL: Maximum Contaminant Level
MW: Monitoring well
PCE: Tetrachloroethene
SWS: Statewide Standards
TCE: Trichloroethene
VOC: Volatile organic compound
µg/L: Micrograms per liter
EPA MCL for PCE and TCE is 5 µg/L.
IDNR SWS for PCE is 1,700 µg/L.
IDNR SWS for TCE is 76 µg/L.
EPA MCL for benzene is 5 µg/L.
IDNR SWS for benzene is 64 µg/L.
EPA MCL for cis-1,2-DCE is 70 µg/L.
IDNR SWS for cis-1,2-DCE is 350 µg/L.
EPA MCL for trans-1,2-DCE is 100 µg/L.
IDNR SWS for trans-1,2-DCE is 700 µg/L.
EPA MCL for carbon tetrachloride is 5 µg/L.
IDNR SWS for carbon tetrachloride is 50 µg/L.
EPA MCL for vinyl chloride is 2 µg/L.
IDNR SWS for vinyl chloride is 10 µg/L.

Bold font indicates a value exceeds the MCL or RSL.
Shading indicates a value exceeds the Iowa Statewide Standard for non-protected groundwater.

N
0 175 350
Feet

Source: Iowa State University GIS Support and Research Facility, Iowa Geogrpahic Map Server, Aerial Imagery, 2016 - 2018

Former Clinton Engines
605 and 607 East Maple Street
Maquoketa, Jackson County, Iowa

Figure 3
VOC Exceedances in Groundwater
(Quarter 4 Sampling Event)

TETRA TECH
TOEROEK ASSOCIATES, INC.

Date: 9/11/2023 Drawn By: Susmita Shrestha Project No: 103G6521.0190.09.03

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APPENDIX B

HISTORICAL DATA TABLES

TABLE B-1: HISTORICAL GROUNDWATER SAMPLE RESULTS

Location	Depth	Sample Date	1,1,1-TCA	1,1-DCA	1,1,2-TCA	PCE	TCE	1,1-DCE	*cis*-1,2-DCE	*trans*-1,2-DCE	VC	Chloroethane	Benzene	Toluene	Ethylbenzene	Xylenes
			Concentration (µg/L)													
Missman, Stanley & Associates - 1999 Phase II - Test America Data																
B1	5-15	9/23/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<2	<2	<2	<2
B2	5-15	9/23/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
B3	5-15	9/23/1999	<10	<10	<10	<10	170	14.7	1,940	14.5	494	<40	56	72.5	246	382
B6	5-15	9/24/1999	<500	<500	<500	<500	<500	<1,000	<500	<500	<500	<2,000	<200	673,000	<500	<1,500
B-9	15-25	9/24/1999	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<4	5.8	<4	<6
Forest Road Consulting 2006 - TestAmerica Data																
MW-10	~14-20	6/8/2006	ND	ND	ND	ND	524	ND	776	13.1	147	ND	95.6	3,000	94.6	249
MW-11	~12-20		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	~11-20	6/8/2006	ND	ND	ND	ND	15.5	ND	32.4	ND	<1	ND	3.24	368	2.26	79.7
MW-13	~20-25		NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	~11-18	6/8/2006	ND	ND	ND	ND	79.9	ND	84.3	1.46	3.37	ND	0.56	2.57	ND	ND
MW-15	~13-20	6/8/2006	ND	ND	ND	ND	261	ND	181	4.11	5.34	ND	<0.5	1.37	ND	ND
MW-16	~12-20	6/8/2006	ND	ND	ND	ND	342	ND	52.3	1.11	<1	ND	<0.5	ND	ND	ND
MW-17	~16-20	6/8/2006	ND	ND	ND	ND	44.8	ND	6.08	ND	<1	ND	<0.5	31.1	ND	ND
Impact 7G 2013 "Existing Wells" - TestAmerica Data																
MW-1		4/25/2013	ND	ND	1.37	ND	7.5	7.38	8,380	90	673	5.34	59	112	27	ND
MW-2		4/25/2013	ND	ND	ND	ND	5,160	ND	45,900	ND	2,340	ND	231	125,000	453	1,860
MW-3		4/25/2013	ND	ND	ND	ND	6.64	ND	2.05	ND	ND	ND	ND	44.1	ND	3.36
MW-4		4/25/2013	ND	ND	ND	1.58	8,000	ND	1,090	7.58	ND	ND	0.519	ND	ND	ND
MW-5		4/25/2013	ND	ND	ND	ND	20.3	ND	37	ND	2.23	ND	ND	4.75	ND	ND
MW-6		4/25/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.34	ND	ND
MW-8		4/25/2013	ND	ND	ND	ND	5.12	ND	15	ND	ND	ND	ND	ND	ND	ND
Impact 7G 2019 Supplemental Phase II - TestAmerica Data																
MW-1		5/22/2019	ND	ND	ND	ND	ND	ND	2.22	ND	ND	ND	0.706	1.03	9.23	ND
MW-1FD		5/22/2019	ND	ND	ND	ND	ND	ND	1.88	ND	ND	ND	0.799	1.26	11.9	ND
MW-2R	5-30	5/22/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	247,000	ND	ND
MW-4		5/16/2019	ND	ND	ND	ND	358	ND	4,000	ND	91.2	ND	ND	ND	ND	ND
MW-5		5/16/2019	ND	ND	ND	ND	6.64	ND	3.63	ND	ND	ND	ND	ND	ND	ND
MW-6		5/16/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-7R	20-35	5/22/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-8		5/22/2019	ND	ND	ND	ND	ND	ND	41.8	ND	ND	ND	ND	135	ND	ND
Impact 7G April 2013 Direct-push Technology (DPT) Groundwater - Below Ground Surface (BGS) Mobile Laboratory Results																
BH-3	28-32	NS	NS	NS	NS	NS	4,258	NS	6,893	ND	163	NS	ND	ND	ND	ND
	40-44	NS	NS	NS	NS	NS	1,643	NS	6,357	ND	106	NS	ND	ND	ND	ND
	50-54	NS	NS	NS	NS	NS	1,439	NS	6,743	ND	113	NS	ND	ND	ND	ND
	60-64	NS	NS	NS	NS	NS	1,817	NS	6,636	ND	112	NS	ND	ND	ND	ND
	70-74	NS	NS	NS	NS	NS	3,705	NS	4,244	ND	98.9	NS	ND	ND	ND	ND
BH-4	28-32	NS	NS	NS	NS	NS	59.5	NS	46.6	ND	2.6	NS	ND	11.1	ND	ND
	40-44	NS	NS	NS	NS	NS	689	NS	949	ND	57.2	NS	ND	26.8	ND	ND
	50-54	NS	NS	NS	NS	NS	272	NS	1,090	ND	40.9	NS	ND	118	ND	ND
	60-64	NS	NS	NS	NS	NS	111	NS	850	ND	51.6	NS	18,300	291	ND	ND
BH-6	28-32	NS	NS	NS	NS	NS	ND	NS	ND	ND	ND	NS	ND	ND	ND	ND
	36-40	NS	NS	NS	NS	NS	ND	NS	ND	ND	ND	NS	ND	ND	ND	ND
BH-7	28-32	NS	NS	NS	NS	NS	3,281	NS	194	ND	ND	NS	ND	ND	ND	ND
	38-42	NS	NS	NS	NS	NS	1,900	NS	47.1	ND	ND	NS	ND	ND	ND	ND
	48-52	NS	NS	NS	NS	NS	1,009	NS	125	ND	ND	NS	ND	ND	ND	ND
	58-62	NS	NS	NS	NS	NS	1,183	NS	479	ND	ND	NS	ND	ND	ND	ND
BH-8	28-32	NS	NS	NS	NS	NS	49.2	NS	ND	ND	ND	NS	ND	ND	ND	ND
	38-42	NS	NS	NS	NS	NS	10.2	NS	ND	ND	ND	NS	ND	ND	ND	ND
	48-52	NS	NS	NS	NS	NS	9.5	NS	ND	ND	ND	NS	ND	ND	ND	ND
	58-62	NS	NS	NS	NS	NS	16.8	NS	ND	ND	ND	NS	ND	ND	ND	ND
BH-9	28-32	NS	NS	NS	NS	NS	139	NS	153	49.9	ND	NS	ND	ND	ND	ND
	36-40	NS	NS	NS	NS	NS	142	NS	117	32.5	ND	NS	ND	ND	ND	ND
BH-10	28-32	NS	NS	NS	NS	NS	63.5	NS	273	66.5	ND	NS	ND	ND	ND	ND
	38-42	NS	NS	NS	NS	NS	22.4	NS	69.2	75.9	ND	NS	ND	ND	ND	ND
	46-50	NS	NS	NS	NS	NS	15.9	NS	73.2	79.5	ND	NS	ND	ND	ND	ND

TABLE B-1: HISTORICAL GROUNDWATER SAMPLE RESULTS

Location	Depth	Sample Date	1,1,1-TCA	1,1-DCA	1,1,2-TCA	PCE	TCE	1,1-DCE	*cis* -1,2-DCE	*trans* -1,2-DCE	VC	Chloroethane	Benzene	Toluene	Ethylbenzene	Xylenes
			Concentration (µg/L)													
BH-11	28-32	NS	NS	NS	NS	NS	7,825	NS	595	94.6	19.5	NS	ND	ND	ND	ND
	38-42	NS	NS	NS	NS	NS	8,687	NS	954	ND	26.1	NS	ND	ND	ND	ND
	48-52	NS	NS	NS	NS	NS	5,278	NS	216	74.4	ND	NS	ND	ND	ND	ND
	58-62	NS	NS	NS	NS	NS	462	NS	52.7	44.2	ND	NS	ND	ND	ND	ND
BH-12	28-32	NS	NS	NS	NS	NS	288	NS	622	552	ND	NS	ND	ND	ND	ND
	38-42	NS	NS	NS	NS	NS	840	NS	1,457	1,044	14.6	NS	ND	ND	ND	ND
	48-52	NS	NS	NS	NS	NS	2,147	NS	1,221	115	23.3	NS	ND	ND	ND	ND
	58-62	NS	NS	NS	NS	NS	2,525	NS	2,487	435	34	NS	ND	ND	ND	ND
BH-13	28-32	NS	NS	NS	NS	NS	23.0	NS	255	164	10.6	NS	ND	ND	ND	ND
	38-42	NS	NS	NS	NS	NS	28.7	NS	425	216	10.8	NS	ND	ND	ND	ND
	48-52	NS	NS	NS	NS	NS	32.7	NS	755	324	18.4	NS	ND	ND	ND	ND
	58-62	NS	NS	NS	NS	NS	6.5	NS	61.6	24.4	9.1	NS	ND	ND	ND	ND
BH-14	28-32	NS	NS	NS	NS	NS	320	NS	153	17.8	ND	NS	ND	ND	ND	ND
	38-42	NS	NS	NS	NS	NS	627	NS	248	37.5	8.4	NS	ND	ND	ND	ND
	48-52	NS	NS	NS	NS	NS	791	NS	400	68.8	16.6	NS	ND	ND	ND	ND
	58-62	NS	NS	NS	NS	NS	3,694	NS	912	73.8	ND	NS	ND	ND	ND	ND
BH-15	28-32	NS	NS	NS	NS	NS	10.2	NS	10.5	8.9	ND	NS	ND	ND	ND	ND
	38-42	NS	NS	NS	NS	NS	7.4	NS	10.4	7.2	ND	NS	ND	ND	ND	ND
	48-52	NS	NS	NS	NS	NS	74.2	NS	50.2	49.8	ND	NS	ND	ND	ND	ND
	58-62	NS	NS	NS	NS	NS	158	NS	55.2	75.2	ND	NS	ND	ND	ND	ND
BH-16	28-32	NS	NS	NS	NS	NS	28.6	NS	143	83.9	ND	NS	ND	ND	ND	ND
	38-42	NS	NS	NS	NS	NS	8.7	NS	419	77.7	2.7	NS	ND	ND	ND	ND
	48-52	NS	NS	NS	NS	NS	93.8	NS	284	83.6	4.5	NS	ND	ND	ND	ND
April 2014 Impact 7G DPT Groundwater - BGS Mobile Laboratory Results																
BH-17	41.5	NS	NS	NS	NS	NS	51.1	ND	36.9	ND	ND	NS	NS	NS	NS	NS
	51.5	NS	NS	NS	NS	NS	83	ND	45.9	ND	ND	NS	NS	NS	NS	NS
	61.5	NS	NS	NS	NS	NS	104	ND	47.5	ND	ND	NS	NS	NS	NS	NS
	71.5	NS	NS	NS	NS	NS	142	ND	51.1	ND	ND	NS	NS	NS	NS	NS
BH-18	30	NS	NS	NS	NS	NS	84.3	ND	16.1	ND	ND	NS	NS	NS	NS	NS
	30FD	NS	NS	NS	NS	NS	79.8	ND	15.4	ND	ND	NS	NS	NS	NS	NS
BH-19	35	NS	NS	NS	NS	NS	835	ND	230	13.8	7.4	NS	NS	NS	NS	NS
	45	NS	NS	NS	NS	NS	16.4	ND	132	24.7	ND	NS	NS	NS	NS	NS
	55	NS	NS	NS	NS	NS	102	ND	211	63.8	5.7	NS	NS	NS	NS	NS
BH-19TD (Sampled from top down)	35	NS	NS	NS	NS	NS	897	ND	243	10.5	9.4	NS	NS	NS	NS	NS
	45	NS	NS	NS	NS	NS	15.6	ND	140	26	ND	NS	NS	NS	NS	NS
	55	NS	NS	NS	NS	NS	79.8	ND	161	42.4	6.8	NS	NS	NS	NS	NS
BH-20	20	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
BH-21	21	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
BH-24	35	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
BH-26	37	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
	47	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
BH-28	34	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
	44	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
BH-30	29	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
	39	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
BH-32	29	NS	NS	NS	NS	NS	24.3	ND	15.9	ND	ND	NS	NS	NS	NS	NS
	29FD	NS	NS	NS	NS	NS	22.5	ND	15.3	ND	ND	NS	NS	NS	NS	NS
	39	NS	NS	NS	NS	NS	108	ND	121	12.8	ND	NS	NS	NS	NS	NS
	49	NS	NS	NS	NS	NS	255	ND	300	77.1	ND	NS	NS	NS	NS	NS
	59	NS	NS	NS	NS	NS	191	ND	331	63.4	ND	NS	NS	NS	NS	NS

TABLE B-1: HISTORICAL GROUNDWATER SAMPLE RESULTS

Location	Depth	Sample Date	1,1,1-TCA	1,1-DCA	1,1,2-TCA	PCE	TCE	1,1-DCE	*cis* -1,2-DCE	*trans* -1,2-DCE	VC	Chloroethane	Benzene	Toluene	Ethylbenzene	Xylenes
			Concentration (µg/L)													
BH-34	28	NS	NS	NS	NS	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	NS
	37	NS	NS	NS	NS	NS	11.6	4.2	ND	ND	ND	NS	NS	NS	NS	NS
	37FD	NS	NS	NS	NS	NS	11.7	4.1	ND	ND	ND	NS	NS	NS	NS	NS
Impact 7G DPT Groundwater Sampling 2019 - Eurofins/Test America Data																
B35	75-79	5/13/2019	ND	ND	ND	ND	199	ND	23.5	ND	ND	ND	ND	ND	ND	ND
	65-69	5/13/2019	ND	ND	ND	ND	1,390	ND	187	ND	ND	ND	ND	ND	ND	ND
	55-59	5/13/2019	ND	ND	ND	ND	1,330	ND	230	1.58	ND	ND	ND	ND	ND	ND
	45-49	5/13/2019	1.66	5.09	ND	ND	8,280	11.8	1,120	20.5	70	ND	3	ND	ND	ND
	35-39	5/13/2019	2.11	4.32	1.26	ND	8,970	14.9	1,580	20.2	102	ND	6.04	ND	ND	ND
	25-29	5/13/2019	1.62	11.30	ND	ND	7,760	11.3	1,010	15.4	77	ND	4.73	ND	ND	ND
	15-19	5/13/2019	7.59	ND	ND	ND	1,630	ND	45	ND	ND	ND	ND	ND	ND	ND
	15-19FD	5/13/2019	7.59	ND	ND	ND	2,230	ND	121	1.4	5.29	ND	0.531	ND	ND	ND
B36	49-53	5/13/2019	ND	ND	ND	ND	2,400	ND	163	ND	ND	ND	ND	ND	ND	ND
	39-43	5/13/2019	ND	ND	ND	ND	1,190	ND	63	ND	ND	ND	ND	ND	ND	ND
	29-33	5/13/2019	ND	ND	ND	ND	946	ND	63	ND	ND	ND	ND	ND	ND	ND
B37	70-74	5/13/2019	ND	ND	ND	ND	12.7	ND	1.08	ND	ND	ND	ND	ND	ND	ND
	60-64	5/13/2019	ND	ND	ND	ND	12.2	ND	1.19	ND	ND	ND	ND	ND	ND	ND
	50-54	5/13/2019	ND	ND	ND	ND	10.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
	40-44	5/13/2019	ND	ND	ND	ND	13.6	ND	1.69	ND	ND	ND	ND	ND	ND	ND
	30-34	5/13/2019	ND	ND	ND	ND	508	2.15	175	350	ND	ND	ND	ND	ND	ND
	20-24	5/13/2019	ND	ND	ND	ND	27.8	ND	1.41	4.37	ND	ND	ND	ND	ND	ND
	20-24FD	5/13/2019	ND	ND	ND	ND	32.7	ND	1.61	5.22	ND	ND	ND	ND	ND	ND
B38	56-60	5/14/2019	ND	7.24	ND	ND	9,580	14.5	1,590	551	43	ND	0.693	ND	ND	ND
	46-50	5/14/2019	ND	2.85	ND	ND	6,670	7.13	690	371	20.2	ND	0.785	ND	ND	ND
	36-40	5/14/2019	ND	3.66	ND	ND	7,140	8.48	800	390	23.2	ND	0.805	ND	ND	ND
	26-30	5/14/2019	ND	1.37	ND	ND	4,270	4.08	322	160	8.77	ND	ND	ND	ND	ND
	16-20	5/14/2019	ND	ND	ND	ND	861	ND	73.4	38.8	2.04	ND	ND	ND	ND	ND
	16-20FD	5/14/2019	ND	ND	ND	ND	870	ND	78.3	40	2.31	ND	ND	ND	ND	ND
	6-10	5/14/2019	ND	ND	ND	ND	1030	ND	102	38.8	2.14	ND	ND	ND	ND	ND
B39	21-25	5/14/2019	ND	ND	ND	ND	2.83	ND	2.08	1.18	ND	ND	ND	ND	ND	ND
	41-45	5/14/2019	ND	ND	ND	ND	6.3	ND	7.79	3.82	ND	ND	ND	ND	ND	ND
	31-35	5/14/2019	ND	ND	ND	ND	4.52	ND	4.39	2.68	ND	ND	ND	ND	ND	ND
	21-25 FD	5/14/2019	ND	ND	ND	ND	1.11	ND	ND	ND	ND	ND	ND	ND	ND	ND
B40	30-34	5/14/2019	ND	ND	ND	ND	4,420	10.3	4,330	734	224	ND	7.31	ND	ND	ND
	20-24	5/14/2019	ND	ND	ND	ND	1,180	2.17	841	160	46.1	ND	1.67	ND	ND	ND
	20-24 FD	5/14/2019	ND	ND	ND	ND	1,150	2.77	840	161	46.9	ND	1.62	ND	ND	ND
	10-14	5/14/2019	ND	ND	ND	ND	1,520	2.89	1,260	216	58.8	ND	2.18	ND	ND	ND
B41	30-34	5/14/2019	ND	ND	ND	ND	1.42	ND	ND	1.07	ND	ND	ND	ND	ND	ND
	20-24	5/14/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	20-24FD	5/14/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B42	36-40	5/14/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	26-30	5/14/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	26-30FD	5/14/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	16-20	5/14/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B43	36-40	5/15/2019	ND	ND	12.82	4.29	4,390	23.5	7,190	27.6	319	ND	9.32	ND	ND	ND
	26-30	5/15/2019	ND	ND	3.04	3.44	3,870	20.7	6,630	23.9	2.83	ND	8.56	ND	ND	ND
	16-20	5/15/2019	ND	ND	ND	ND	796	3.05	710	5.27	33.6	ND	0.942	ND	ND	ND
	6-10	5/15/2019	ND	ND	ND	ND	101	ND	63.1	ND	1.36	ND	ND	ND	ND	ND
B44	36-40	5/15/2019	ND	ND	ND	ND	132	ND	37.5	ND	ND	ND	ND	ND	ND	ND
	26-30	5/15/2019	ND	ND	ND	ND	345	ND	49.6	1.21	ND	ND	ND	ND	ND	ND
	16-20	5/15/2019	ND	ND	ND	ND	932	ND	1,420	14.8	47.1	ND	ND	11.2	ND	44.8
	16-20FD	5/15/2019	ND	ND	ND	ND	850	4.06	1,290	15.7	57.1	ND	ND	ND	ND	ND
	6-10	5/15/2019	ND	ND	ND	ND	476	2.15	952	7.62	34.2	ND	1.63	ND	ND	ND
B45	36-40	5/15/2019	ND	ND	ND	ND	139	ND	15.5	ND	ND	ND	ND	ND	ND	ND
	26-30	5/15/2019	ND	ND	ND	ND	90.2	ND	12.2	ND	ND	ND	ND	ND	ND	ND
	16-20	5/15/2019	ND	ND	ND	ND	37.4	ND	3.92	ND	ND	ND	ND	ND	ND	ND
	16-20FD	5/15/2019	ND	ND	ND	ND	35.5	ND	3.83	ND	ND	ND	ND	ND	ND	ND

TABLE B-1: HISTORICAL GROUNDWATER SAMPLE RESULTS

Location	Depth	Sample Date	1,1,1-TCA	1,1-DCA	1,1,2-TCA	PCE	TCE	1,1-DCE	*cis* -1,2-DCE	*trans* -1,2-DCE	VC	Chloroethane	Benzene	Toluene	Ethylbenzene	Xylenes
			Concentration (µg/L)													
B46	55-59	5/15/2019	ND	ND	ND	ND	264	ND	37.3	1.34	ND	ND	ND	ND	ND	ND
	45-49	5/15/2019	ND	ND	ND	ND	281	ND	40.9	1.14	ND	ND	ND	ND	ND	ND
	35-39	5/15/2019	ND	ND	ND	ND	310	ND	156	1.3	ND	ND	ND	ND	ND	ND
	25-29	5/15/2019	ND	ND	ND	ND	118	ND	49.8	ND	ND	ND	ND	ND	ND	ND
	25-29FD	5/15/2019	ND	ND	ND	ND	92.1	ND	27.5	ND	ND	ND	ND	ND	ND	ND
B47	54-58	5/15/2019	ND	ND	ND	ND	191	ND	291	59.5	7.17	ND	0.535	ND	ND	ND
	44-48	5/15/2019	ND	ND	ND	ND	72.4	ND	167	25.5	5.14	ND	0.535	ND	ND	ND
	34-38	5/15/2019	ND	ND	ND	ND	93.9	ND	80.9	8.98	1.61	ND	ND	ND	ND	ND
	34-38FD	5/15/2019	ND	ND	ND	ND	77.8	ND	81.1	10.3	1.34	ND	ND	ND	ND	ND
	24-28	5/15/2019	ND	ND	ND	ND	29.5	ND	25.9	2.71	ND	ND	ND	ND	ND	ND
B-48	NA	5/22/2019	ND	ND	ND	ND	23.6	ND	ND	ND	ND	ND	ND	ND	ND	ND
B-49	NA	5/22/2019	ND	ND	ND	ND	3.94	ND	ND	ND	ND	ND	ND	ND	ND	ND
B50	46-50	6/18/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B51	46-50	6/18/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B52	27-31	6/18/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B53	64-68	6/18/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B54	50-54	6/19/2019	ND	ND	ND	ND	1.1	ND	2.17	ND	ND	ND	ND	ND	ND	ND
B56	37-41	6/18/2019	ND	ND	ND	ND	355	ND	29	1.25	ND	ND	ND	ND	ND	ND
B57	25-29	6/20/2019	ND	ND	ND	ND	5.92	ND	1.29	ND	ND	ND	ND	7.61	ND	ND
MW-2R/SB	49-53	6/20/2019	ND	ND	ND	1.46	1.070	ND	350	54.7	9.12	ND	0.965	27.1	ND	ND

Notes:

B = Boring
BH = Borehole
DCA = Dichloroethane
DCE = Dichloroethene
FD = Field duplicate
ft bgs = Feet below ground surface
µg/L = Micrograms per liter
MW = Monitoring well
NA = Not available
ND = Not detected
NS = Analyte not selected for analysis
PCE = Tetrachloroethene
TCA = Trichloroethane
TCE = Trichloroethene
R = Replacement
SB = Soil boring
VC = Vinyl chloride

TABLE B-2: HISTORICAL VOLATILE ORGANIC COMPOUNDS IN SOILS

Sample Location	Depth (ft bgs)	Sample Date	1,1,2-TCA	PCE	TCE	1,1-DCE	*cis* -1,2-DCE	*trans* -1,2-DCE	VC	Chloroethane	Benzene	Tolune	Ethylbenzene	Xylenes
			Concentration (µg/kg)											
Missman, Stanley & Associates 1999 Phase I - Test America Data														
B-6-3	3	9/24/1999	<120	<120	<120	<120	<120	<120	<360	<480	<120	604,000	786	2,690
Seneca Environmental 2002 Test America soils results for closure of three underground stoarage tanks are not listed (CVOCs not analyzed)														
Three monitoring wells were installed around Tank2 (southeast) and Tank3 (southwest)														
Forest Road Group 2006 - Test America Data														
MW-10	16	6/1/2006	ND	ND	ND	ND	256	ND	29.4	ND	10.2	109	115	228
MW-10	20	6/1/2006	ND	ND	6.22	ND	ND	ND	112	ND	21.5	22.7	ND	ND
MW-11	11	6/2/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-11	20	6/2/2006	ND	ND	6.9	ND	ND	ND	ND	ND	ND	7.07	ND	ND
MW-12	18	6/2/2006	ND	ND	ND	ND	ND	ND	ND	ND	13.33	36,900	107	438
MW-12	20	6/2/2006	ND	ND	25.6	ND	50.4	ND	ND	ND	ND	6.66	ND	ND
MW-13	23	6/1/2006	9.04	4.07	8,370	ND	3,310	ND	85.2	ND	151	285,000	367	5,010
MW-13	27	6/1/2006	ND	ND	48.1	ND	204	ND	26.4	ND	ND	12.7	ND	ND
MW-14	12	6/7/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-14	18	6/7/2006	ND	ND	54.6	ND	28.6	ND	ND	ND	ND	6.71	ND	ND
MW-15	11	6/7/2006	ND	ND	11	ND	4.7	ND	ND	ND	ND	ND	ND	ND
MW-15	19	6/7/2006	ND	ND	94.3	ND	64.5	ND	ND	ND	ND	5.77	ND	ND
MW-16	12	6/7/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-16	20	6/7/2006	ND	ND	29.9	ND	4.83	ND	ND	ND	ND	ND	ND	ND
MW-17	11	6/7/2006	ND	ND	13.4	ND	ND	ND	ND	ND	ND	6.26	ND	ND
MW-17	20	6/7/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.58	ND	ND
Impact 7G 2014 - TestAmerica Data														
BH-17	15	4/21/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH-18	7	7/21/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Impact 7G 2019 Supplemental Phase II - TestAmerica Data														
MW-2R	16-17	5/16/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,450,000	2,740	10,800
MW-2R	16-17FD	5/16/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	211,000	2,520	11,800
MW-2R	20-21	5/16/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	522,000	884	ND
MW-2R	25-26	5/16/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	54.9	ND	ND
MW-7R	25-26	5/16/2019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
EPA START 2020 - EPA Region 7 Laboratory Data														
SB-1	9-10	7/22/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	15-16	7/22/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-2	9-10	7/22/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	15-16	7/22/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-3	9-10	7/22/2020	ND	ND	73	ND	31	ND	ND	ND	ND	ND	ND	ND
	9-10FD	7/22/2020	ND	ND	61	ND	23	ND	ND	ND	ND	ND	ND	ND
	15-16	7/22/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-4	9-10	7/22/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	15-16	7/22/2020	ND	ND	3,000	ND	180	ND	ND	ND	ND	ND	ND	ND
SB-5	9-10	7/22/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	15-16	7/22/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SB-6	8-9	7/22/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	15-16	7/22/2020	ND	ND	610	ND	13	ND	ND	ND	ND	ND	ND	ND

TABLE B-2: HISTORICAL VOLATILE ORGANIC COMPOUNDS IN SOILS

Notes:

B = Boring
BH = Borehole
CVOC = Chlorinated volatile organic compounds
DCE = Dichloroethene
EPA = U.S. Environmental Protection Agency
ft bgs = Feet below ground surface
FD = Field duplicate
µg/kg = Micrograms per kilogram
MW = Monitoring well
ND = Not detected
PCE = Tetrachloroethene
R = Replacement
START = Superfund Technical Assessment Response Team
TCA = Trichloroethane
TCE = Trichloroethene
VC = Vinyl chloride

TABLE B-3: AVAILABLE VAPOR INTRUSION SAMPLE RESULTS FOR SELECTED VOLATILE ORGANIC COMPOUNDS

Sample Location	Sample Type	Date	PCE	TCE	*cis* -1,2-DCE	*trans* -1,2-DCE	Toluene	Xylenes
Impact 7G 2014-2020 Site Assessment VI Samples - TestAmerica Data								
Museum Sub-slab- Sample 1	Sub-slab	4/21/2014		930	850	47		8.5
Museum Sub-slab- Sample 2	Sub-slab	7/31/2014		730	450	33		
Museum Sub-slab- Sample 3	Sub-slab	10/29/2014		230	64	7.1		
Museum Sub-slab- Sample 4	Sub-slab	1/27/2015		540	560	22		
Vapor Pin (Sub-slab)	Sub-slab	3/22/2018		19	ND	ND	2.1	1.8
Outdoor Ambient Air	Ambient Air	3/22/2018		ND	ND	ND	0.85	ND
	Ambient Air	5/14/2019		ND	ND	ND	3.1	ND
	Ambient Air	12/10/2019		ND	ND	ND	ND	ND
	Ambient Air	9/23/2020		ND	ND	ND	ND	ND
Indoor Air - Basement	Indoor Air	3/22/2018		22	2.6	7	1.9	1.1
Indoor Air - Basement	Indoor Air	3/22/2018		23	2.7	7.5	2.2	1.3
Indoor Air - Main Level	Indoor Air	3/22/2018		19	2.2	5.7	2	1.2
Basement - Community Room	Indoor Air	4/24/2019		7.6	0.95	26	12	8.8
	Indoor Air	12/10/2019		12	1.1	1.5	1	102
	Indoor Air	9/23/2020	14.8	ND	ND	1.4		
Basement - Media Room	Indoor Air	4/24/2019		9	1.1	26	15	11
	Indoor Air	12/10/2019		12	1.4	3.2	143	2.1
	Indoor Air	12/20/2019		7.8/8.3	ND/ND	2.6/2.8	3.6/3.8	76/89
	Indoor Air	9/23/2020	36.8/29	ND/ND	ND/ND	1.2/2.1	ND/ND	14.3/14.4
First Level - Museum	Indoor Air	4/24/2019		2	ND	5.5	3.7	1.2
	Indoor Air	12/10/2019		6.4	ND	1	1.2	57
	Indoor Air	9/23/2020	ND	ND	ND	ND	1.4	2
First Level - Office	Indoor Air	4/24/2019		2.5	ND	7.7	4.6	5.5
	Indoor Air	12/10/2019		6.3	0.88	1.5	1.7	63
	Indoor Air	9/23/2020	ND	ND	ND	ND	ND	1.8
Depot	Indoor Air	12/10/2019		ND	ND	ND	ND	ND
Warehouse Building	Indoor Air	12/10/2019		ND	ND	ND	6.7	7.4

TABLE B-3: AVAILABLE VAPOR INTRUSION SAMPLE RESULTS FOR SELECTED VOLATILE ORGANIC COMPOUNDS

Address	Property and SampleType	Sample Number	Location	TCE	*cis*- 1,2-DCE	*trans*- 1,2-DCE	VC	Toluene
START 2020-2021 Sub-slab Vapor Samples								
EPA START June 2020 Sample Locations - EPA Region 7 Laboratory Data								
501 E. Maple St.	Residential- Sub-slab	8537-19	Basement, center of right wall	1.4 U	NA	NA	NA	NA
209 S. Otto St.	Residential -Sub-slab	8537-21	Basement, center of far wall	1.4 U	NA	NA	NA	NA
807 E. Platt St.	Residential -Sub-slab	8537-22	Basement, back right corner	1.4 U	NA	NA	NA	NA
214 S. Matteson St.	Residential -Sub-slab	8537-24	Basement, by stairs under rug	1.4 U	NA	NA	NA	NA
215 S. Matteson St.	Residential -Sub-slab	8537-18	Basement, main room far wall	1.4 U	NA	NA	NA	NA
216 S. Matteson St.	Residential -Sub-slab	8537-20	Basement, center between rooms	1.4 U	NA	NA	NA	NA
219 S. Matteson St.	Residential -Sub-slab	8537-25	Basement, right side back corner	3.1	NA	NA	NA	NA
307 S. Matteson St.	Residential -Sub-slab	8537-17	Basement, left room by dryer	1.4 U	NA	NA	NA	NA
308 S. Clark St.	Residential -Sub-slab	8537-16	NA	1.4 U	NA	NA	NA	NA
311 S. Matteson St.	Residential -Sub-slab	8537-23	Basement, back right corner (dryer)	1.4 U	NA	NA	NA	NA
EPA START July 2020 Sample Locations - EPA Region 7 Laboratory Data								
104 N. Dearborn St.	Residential -Sub-slab	8612-16	Basement Port	0.14 U	0.20 U	0.20 U	0.13 UJ	0.76 U
514 E. Maple St.	Residential -Sub-slab	8612-22	Basement Port	0.14 U	0.20 U	0.20 U	0.13 UJ	0.76 U
604 E. Maple St.	Commercial - Sub-slab	8612-18	West Shop Port	0.14 U	0.20 U	0.20 U	0.13 UJ	7
802 E. Maple St.	Commercial - Sub-slab	8612-19	Furnace Closet Port	0.32	0.20 U	0.20 U	0.13 UJ	0.94
1286 E. Maple St.	Commercial - Sub-slab	8612-28	Shop Port	0.14 U	0.20 U	0.20 U	0.13 UJ	0.76 U
204 S. Matteson St.	Residential -Sub-slab	8612-26	Basement Port (back room)	0.14 U	0.20 U	0.20 U	0.13 UJ	0.76 U
222 S. Matteson St.	Residential -Sub-slab	8612-21	Basement Port	0.14 U	0.20 U	0.20 U	0.13 UJ	0.76 U
316 S. Matteson St.	Residential -Sub-slab	8612-20	Basement Port	0.14 U	0.20 U	0.20 U	0.13 UJ	0.76 U
312 S. Clark St.	Residential -Sub-slab	8612-24	Basement Port	0.14 U	0.20 U	0.20 U	0.13 UJ	0.76 U
908 E. Platt St.	Residential -Sub-slab	8612-25	Basement Port	0.76	0.20 U	0.20 U	0.13 UJ	0.76 U
1207 E. Platt St.	Residential -Sub-slab	8612-27	Basement Port	0.14 U	0.20 U	0.20 U	0.13 UJ	0.76 U
1215 E. Platt St.	Commercial -Sub-slab	8612-17	Basement Port	0.14 U	0.20 U	0.20 U	0.13 UJ	2.9
EPA START February 2021 Sample Locations - EPA Region 7 Laboratory Data								
604 E. Maple St.	Commercial - Sub-slab	8778-3	West Shop Port	0.14 U	0.20 U	0.20 U	0.13 U	16
802 E. Maple St.	Commercial - Sub-slab	8778-5	Furnace Closet Port	0.14 U	0.20 U	0.20 U	0.13 U	0.76 U
907 E. Platt St.	Residential -Sub-slab	8778-8	Basement	0.14 U	0.20 U	0.20 U	0.13 U	0.76 U
219 S. Matteson St.	Residential -Sub-slab	8778-11	Basement, right side back corner	1	0.20 U	0.20 U	0.13 U	0.76 U
START 2021-2021 - Indoor and Ambient Air Samples								
EPA START June 2020 Sample Locations - EPA Region 7 Laboratory Data								
214 S. Matteson St.	Residential - Indoor air	8537-9	Main Floor, Living Room	1.4 U	NA	NA	NA	NA
215 S. Matteson St.	Residential - Indoor air	8537-5	Main Floor, Kitchen	1.4 U	NA	NA	NA	NA
216 S. Matteson St.	Residential - Indoor air	8537-10	Main Floor, Living Room	1.4 U	NA	NA	NA	NA
219 S. Matteson St.	Residential - Indoor air	8537-1	Main Floor, Dining Room	1.4 U	NA	NA	NA	NA
307 S. Matteson St.	Residential - Indoor air	8537-3	Main Floor, Dining Room	1.4 U	NA	NA	NA	NA
311 S. Matteson St.	Residential - Indoor air	8537-15	Main Floor, Dining Room	1.4 U	NA	NA	NA	NA
308 S. Clark St.	Residential - Indoor air	8537-2	Main Floor, Living Room	1.4 U	NA	NA	NA	NA
314 S. Clark St.	Residential - Indoor air	8537-7	Main Floor, Living Room	1.4 U	NA	NA	NA	NA
501 E. Maple St.	Residential - Indoor air	8537-8	Main Floor, Main Area	1.4 U	NA	NA	NA	NA
209 S. Otto St.	Residential - Indoor air	8537-11	Main Floor, Dining Room	1.4 U	NA	NA	NA	NA
109 S. Otto St.	Residential - Indoor air	853712	Main Floor, Kitchen	1.4 U	NA	NA	NA	NA
907 E. Platt St.	Residential - Indoor air	8537-13	Main Floor, Kitchen	**1.9**	NA	NA	NA	NA
807 E. Platt St.	Residential - Indoor air	8537-14	Main Floor – Kitchen	1.4 U	NA	NA	NA	NA

TABLE B-3: AVAILABLE VAPOR INTRUSION SAMPLE RESULTS FOR SELECTED VOLATILE ORGANIC COMPOUNDS

Address	Property and SampleType	Sample Number	Location	TCE	*cis*-1,2-DCE	*trans*-1,2-DCE	VC	Toluene
EPA START July 2020 Sample Locations - EPA Region 7 Laboratory Data								
514 E. Maple St.	Residential - Indoor air	8612-10	Main Floor, Living Room	0.14 U	0.20 U	0.20 U	0.13 U	3.8
600 E. Maple St.	Residential - Indoor air	8612-7	Main Floor, Main Room	0.14 U	0.20 U	0.20 U	0.13 U	11
604 E. Maple St.	Commercial - Indoor air	8612-4	Left Building Shop (west)	0.35	0.28	0.79	0.13 U	1,700 J
		8612-5	Right Building Office (east)	0.14 U	0.20 U	0.20 U	0.13 U	300
803 E. Maple St.	Residential - Indoor air	8612-1	Main Floor, Living Room	0.2	0.20 U	0.51	0.13 U	680
802 E. Maple St.	Commercial - Indoor air	8612-6	Room with Furnace Closet	0.64	0.33	0.20 U	0.13 U	14
1286 E. Maple St.	Commercial - Indoor air	8612-23	Main Office Area	0.14 U	0.20 U	0.20 U	0.13 UJ	34
204 S. Matteson St.	Residential - Indoor air	8612-14	Main Floor, Living Room	0.14 U	0.20 U	0.20 U	0.13 U	3.3
316 S. Matteson St.	Residential - Indoor air	8612-8	Main Floor, Living Room	0.14 U	0.20 U	0.20 U	0.13 U	14
222 S. Matteson St.	Residential - Indoor air	8612-9	Main Floor, Office Room	0.14 U	0.20 U	0.20 U	0.13 U	10
312 S. Clark St.	Residential - Indoor air	8612-11	Main Floor – Kitchen	0.14 U	0.20 U	0.20 U	0.13 U	2.9
104 N. Dearborn St.	Residential - Indoor air	8612-2	Main Floor, Living Room	0.21	0.20 U	0.20 U	0.24	1.7
908 E. Platt St.	Residential - Indoor air	8612-13	Main Floor, Living Room	0.14 U	0.20 U	0.20 U	0.13 U	2.2
1207 E. Platt St.	Residential - Indoor air	8612-15	Main Floor, Living Room	0.14 U	0.20 U	0.20 U	0.13 UJ	0.76 U
1211 E. Platt St.	Commercial - Indoor air	8612-12	Main Floor, Front Desk	0.14 U	0.20 U	0.20 U	0.13 U	6.6
1215 E. Platt St.	Commercial - Indoor air	8612-3	Auditorium	0.14 U	0.20 U	0.20 U	0.13 U	13
EPA START February 2021 Sample Locations - EPA Region 7 Laboratory Data								
604 E Maple St.	Commercial - Indoor air	8778-2	Left Building Shop (west)	0.14 U	0.20 U	0.46	0.13 U	460
802 E. Maple St.	Commercial - Indoor air	8778-4	Room with Furnace Closet	0.14 U	0.20 U	0.20 U	0.13 U	5.5
803 E. Maple St.	Residential - Indoor air	8778-9	Main Floor, Living Room	0.38	0.20 U	0.20 U	0.13 U	220
104 N. Dearborn St.	Residential - Indoor air	8778-6	Main Floor, Living Room	0.14 U	0.20 U	0.20 U	0.13 U	2.2
219 S. Matteson St.	Residential - Indoor air	8778-10	Main Floor, Dining Room	0.14 U	0.20 U	0.20 U	0.13 U	0.76 U
907 E. Platt St.	Residential - Indoor air	8778-7	Main Floor, Kitchen	0.38	0.20 U	0.20 U	0.13 U	8.8
908 E. Platt St.	Residential - Indoor air	8778-1	Main Floor, Living Room	0.14 U	0.20 U	0.20 U	0.13 U	2.9
Ambient Air June 2020 and February 2021								
217 S. Matteson St.	Ambient Air	8537-4	Backdoor Steps	0.14 U	NA	NA	NA	NA
314 S. Clark St.	Ambient Air	8537-6	Backdoor Steps	0.14 U	NA	NA	NA	NA
607 E Maple St.	Ambient Air	8778-12	Museum Parking Lot	0.14 U	0.20 U	0.20 U	0.13 U	0.76 U

Notes:

DCE = Dichloroethene
EPA = U.S. Environmental Protection Agency
J = Estimated value
NA = Not available
ND = Not detected
PCE = Tetrachloroethene
START = Superfund Tecgnical Assessment Response Team
TCE = Trichloroethene
U = Undetected at detection limit to left
VC = Vinyl chloride

TABLE B-4
QUARTER 1, NOVEMBER 2022

DETECTED VOC RESULTS FROM SUBSURFACE SOIL SAMPLES
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

Sample Location	Depth (ft bgs)	Acetone	2-Butanone (MEK)	MIBK	Carbon Disulfide	Carbon Tetrachloride	Chloroform	1,1,1-TCA	1,1-DCA	PCE	TCE	1,1-DCE	1,2-DCE	*cis*-1,2-DCE	*trans*-1,2-DCE	Vinyl chloride
		Concentrations (µg/kg)														
EPA RSL (Residential)		**7E+6**	**2.7E+6**	**3.3E+6**	**7.7E+4**	**650**	**320**	**8.1E+5**	**3,600**	**8,100**	**410**	**2.3E+4**	**NE**	**6,300**	**7,000**	**59**
EPA RSL (Industrial)		**1.1E+8**	**1.9E+7**	**1.4E+7**	**3.5E+5**	**2,900**	**1,400**	**3.6E+6**	**1.6E+4**	**3.9E+4**	**1,900**	**1E+5**	**NE**	**3.7E+4**	**3E+4**	**1,700**
IDNR Residential SWS		**6.8E+7**	**1.6E+7**	**6.1E+6**	**7.6E+6**	**4.4E+4**	**7.6E+5**	**1.5E+8**	**1.5E+6**	**1.5E+6**	**6.7E+4**	**3.8E+5**	**NE**	**1.5E+5**	**1.5E+6**	**2,100**
MW-1B	19-21	ND	184 J	ND	ND	ND	**371**	ND	ND	ND	132 J	ND	1,970	1,970	ND	42.6 J
MW-2B	55-57	ND	ND	ND	ND	ND	1.5 J	ND	ND	ND	**2,400**	ND	95.1	94.6	ND	1.7 J
MW-3B	36-38	ND	ND	ND	ND	7.4	6.2	ND	ND	1.5 J	108	ND	66.1	66.1	ND	7.6
MW-4B	24-26	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3,760**	ND	141	131	10.3	6.5
MW-5B	21-23	ND	ND	ND	ND	ND	ND	ND	ND	ND	90.2	ND	28.3	27.6	0.74 J	1 J
MW-6B	18-20	15.8 J	3.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	50-52	ND	ND	ND	1.2 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-8B	14-16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	55-57	19.6	4.9 J	ND	ND	ND	ND	ND	ND	ND	**6,090**	ND	127	125	1.8 J	1.6 J
MW-9	55-57	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3 J	ND	1.2 J	1.2 J	ND	ND
MW-10A	39-41	33.4	5.5 J	ND	ND	ND	ND	ND	ND	0.94 J	**2,770**	1 J	303	300	2.9 J	16.8
MW-10B	43-45	ND	ND	3.1 J	ND	ND	ND	1 J	1.1 J	ND	**2,900**	2.3 J	262	259	3.4 J	20.7
MW-11	44-46	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-12	39-41	ND	ND	ND	ND	ND	ND	ND	ND	ND	49.1 J	ND	9.5 J	6.5 J	3 J	ND
	39-41-FD	ND	ND	ND	ND	ND	ND	ND	ND	ND	10 J	ND	2.6 J	1.9 J	0.73 J	ND
MW-13	22-24	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.7	ND	14.4	13.6	0.74 J	ND
MW-14	59-61	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3 J	1.3 J	ND	ND
MW-101	114-116	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-102	117-119	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-103	19-21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-104	64-66	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

TABLE B-4
QUARTER 1, NOVEMBER 2022

DETECTED VOC RESULTS FROM SUBSURFACE SOIL SAMPLES
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

Sample Location	Sample Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Total Xylenes	n-Butylbenzene	Sec- Butylbenzene	Tert- Butylbenzene	Hexachloro-1,3-butadiene	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	1,2,3-Trichlorobenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
		Concentration (µg/kg)														
EPA RSL (Residential)		**1,200**	**4.9E+5**	**5,800**	**5.8E+4**	**3.9 E+5**	**7.8E+5**	**7.8E+5**	**NE**	**1.9E+5**	**NE**	**2,000**	**3.8E+5**	**6,300**	**3E+4**	**2.7E+4**
EPA RSL (Industrial)		**5,100**	**4.7E+6**	**2.5E+4**	**2.5E+5**	**5.8E+6**	**1.2E+7**	**1.2E+7**	**NE**	**9.9E+5**	**NE**	**8,600**	**2.5E+6**	**9.1E+4**	**1.8E+5**	**1.5E+5**
Iowa Statewide Standard		**5.6E+4**	**6.1E+6**	**7.6E+6**	**1.5E+7**	**3.8E+6**	**NE**	**NE**	**NE**	**7.6E+6**	**NE**	**1.1E+6**	**7.6E+6**	**NE**	**7.6E+5**	**7.6E+5**
MW-1B	19-21	40.4 J	258 J	286	737	7,860	1,250	57.1 J	280 J	446	1,740	693	2,050	ND	8,130	4,050
MW-2B	55-57	2.6 J	0.43 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3B	36-38	1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4B	24-26	0.61 J	1.2 J	0.83 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-5B	21-23	0.55 J	1.3 J	1.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-6B	18-20	ND	0.68 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	50-52	ND	0.64 J	0.5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-8B	14-16	0.85 J	144 J	22	110	ND	ND	ND	ND	1.5 J	ND	1.5 J	1.3 J	ND	8.3	1.3 J
	55-57	3.8 J	1.8 J	0.52 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-9	55-57	ND	0.45 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-10A	39-41	1.9 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-10B	43-45	1.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-11	44-46	0.56 J	1.6 J	1.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-12	39-41	ND	0.32 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	39-41-FD	ND	0.33 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-13	22-24	ND	0.58 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-14	59-61	ND	0.76 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-101	114-116	0.79 J	2.3 J	2.1 J	1.1 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-102	117-119	ND	0.95 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-103	19-21	ND	0.74 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-104	64-66	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Bold font indicates the concentration exceeds the Residential RSL.
Shading indicates the concentration exceeds the Industrial RSL.

DCA	Dichloroethane
DCE	Dichloroethene
EPA	U.S. Environmental Protection Agency
ft bgs	Feet below ground surface
FD	Field duplicate
IDNR	Iowa Department of Natural Resources
J	Estimated value
MEK	Methyl ethyl ketone
µg/kg	Micrograms per kilogram
MIBK	Methyl isobutyl ketone
MW	Monitoring well
ND	Not detected
NE	Not established
PCE	Tetrachloroethene
RSL	Regional Screening Level TR = 1E-06; THQ = 0.1 (EPA 2022a)
SWS	Statewide Standard (IDNR 2022c)
THQ	Total hazard quotient
TR	Target Cancer Risk
TCA	Trichloroethane
TCE	Trichloroethene
VOC	Volatile organic compound

TABLE B-5
QUARTER 1, NOVEMBER 2022

DETECTED VOC RESULTS FROM GROUNDWATER SAMPLES
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

Sample Identification	Screened Interval (ft bgs)	Methylene Chloride	Carbon Tetrachloride	Chloroform	Bromoform	Dibromochloromethane	1,1,1-Trichloroethane	1, 1, 2-Trichloroethane	1,1-Dichloroethane	Tetrachloroethene	Trichloroethene	1,1-Dichloroethene	1,2-Dichloroethene (Total)	*cis*-1,2-Dichloroethene	*trans*-1,2-Dichloroethene	Vinyl Chloride	Chloroethane	Benzene	Toluene	Ethylbenzene	Xylene (Total)	Chlorobenzene	Sec-Butylbenzene	Isopropylbenzene (Cumene)	p-Isopropyltoluene	1,2-Dichloroethane	Methyl-Tert-Butyl-Ether (MTBE)
		Concentration (µg/L)																									
		EPA MCL or EPA RSL (TR=1E-6, THQ=0.1) Tap water																									
		5	5	80*	80*	80*	200	5	NE	5	5	7	NE	70	100	2	NE	5	1000	700	10,000	100	2,000**	450**	NE	5	14**
		IDNR SWSs for Non-Protected Groundwater																									
		1,800	50	400	440	400	70,000	61	700	1,700	76	180	NE	350	700	10	14,000	64	5,000	3,500	50,000	700	NE	3,500	NE	38	1000
MW-1B	42-52	ND	ND	ND	ND	ND	ND	ND	ND	ND	**7.2**	0.22 J	199	**196**	3.2 J	**93.9**	5.3	**5.0**	ND	0.53 J	0.57 J	ND	0.15 J	0.22 J	ND	ND	ND
MW-2B	47-57	ND	ND	3.1 J	ND	ND	ND	ND	ND	ND	**1,950**	3.9 J	1,080	**1,040**	43.5	**41.8**	ND	2.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3B	47-57	ND	**12.2**	21.9	1.1	0.57 J	ND	0.41 J	ND	4.9	**375**	0.64 J	460	**448**	11.9	**22.3**	ND	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4B	47-57	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9	ND	1.7	1.5	0.20 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-6B	41-51	ND	ND	0.36 J	ND	0.56 J	ND	ND	ND	ND	**10.2**	ND	3.9	3.6	0.34 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.15 J	ND	ND
MW-6B-FD		ND	ND	0.35 J	ND	0.54 J	ND	ND	ND	ND	**9.9**	ND	3.8	3.5	0.30 J	ND	ND	ND	0.26 J	ND	ND	ND	ND	ND	0.14 J	ND	ND
MW-8B	43-53	ND	ND	ND	ND	ND	ND	ND	ND	ND	**4,680**	**9.9 J**	6,520	**5,740**	**788**	**154**	ND	**13.7 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND
Delineation Wells																											
MW-9	46-56	ND	ND	ND	ND	ND	ND	ND	ND	ND	**133**	ND	12.7	9.6	3.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-10A	47-57	ND	ND	ND	ND	ND	3.1 J	ND	ND	ND	**5,730**	17.5	2,160	**2,140**	23.4 J	**103**	ND	**7.8 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-10B	63-73	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3,810**	ND	1,070	**1,050**	17.7 J	**39.5 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-10B-FD		ND	ND	ND	ND	ND	ND	ND	ND	ND	**3,670**	ND	1,010	**1,000**	7.6 J	**36.3 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-11	40-50	ND	ND	ND	ND	0.50 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-12	35-45	ND	ND	ND	ND	ND	ND	ND	3.7	ND	**4,420**	**8.2**	1,280	**697**	**583**	**22.5**	ND	0.40 J	ND	ND	ND	1.2	ND	ND	ND	ND	ND
MW-13	33-43	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.32 J	ND	1.2	1.2	ND	**2.4**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-14	50-60	ND	ND	ND	ND	ND	ND	ND	ND	ND	**15.8**	0.54 J	215	**184**	31.2	**6.5**	ND	0.38 J	0.33 J	ND	ND	ND	ND	ND	ND	0.24 J	0.56
Bedrock Wells																											
MW-101	117-127	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-102	125-135	ND	ND	ND	ND	0.55 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-103	27-37	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-104	77-87	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	ND	2.3	2.0	0.34 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

* MCL for total trihalomethanes.
** RSL for Tapwater is listed

Bold font indicates a value exceeds the MCL
Shading indicates a value exceeds the Iowa Statewide Standard for non-protected groundwater.

bgs	Below ground surface
EPA	U.S. Environmental Protection Agency
FD	Field Duplicate
ft	Feet
J	Estimated Value
IDNR	Iowa Department of Natural Resources
MCL	Maximum Contaminant Level (EPA 2022a)
µg/L	Micrograms per liter
MW	Monitoring well
ND	Not detected
NE	Not established
RSL	Regional Screening Level (EPA 2022a)
SWS	Statewide Standard (IDNR 2022c)
THQ	Target Hazard Quotient
TR	Target Cancer Risk
VOC	Volatile organic compound

TABLE B-6
QUARTER 1, NOVEMBER 2022

DETECTED VOC RESULTS FROM SOIL-GAS SAMPLES
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

Analyte	VISL Exterior Soil Gas (Residential)	VISL Exterior Soil Gas (Worker)	MW1B-SG	MW2B-SG	MW3B-SG	MW4B-SG	MW8B-SG	MW9-SG	MW10-SG	MW11-SG	MW13-SG	MW14-SG	MW101-SG	MW102-SG	MW103-SG	MW104-SG
			Concentration (µg/m^3)													
Gasoline-range Organics	NE	NE	2,160	1,570	4,380	228 J	1,120	438 J	206 J	628 J	ND	237 J	ND	1,930	1,840	425 J
Acetone	NE	NE	38.5	34.5	ND	20.2	53.7	107	27.8	38	25.7	5.01	22.6	43.5	17.5	23.6
Benzene	100	440	ND	1.49	27	0.974	0.773	0.623 J	1.25	1.35	0.616 J	2.67	0.712	0.882	9.01	7.76
Bromomethane	17.4	72	ND	ND	ND	ND	0.625 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene	6.95	29.2	ND	ND	ND	ND	ND	ND	ND	ND	0.239 J	0.569 J	ND	ND	ND	0.597 J
Carbon disulfide	2,430	10,200	ND	3.3	4.26	ND	ND	1.49	ND	ND	0.439 J	1.15	ND	2.25	ND	0.489 J
Carbon Tetrachloride	160	680	ND	ND	ND	ND	ND	ND	ND	ND	0.636 J	0.622 J	ND	ND	ND	ND
Chloroethane	NE	NE	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.517 J	ND	ND	ND	ND
Chloromethane	313	1,310	ND	0.266 J	ND	ND	0.863	0.233 J	0.38 J	0.993	1.12	1.97	0.271 J	0.618	1.09	0.351 J
Cyclohexane	3,480	14,600	ND	0.961	ND	ND	ND	0.596 J	ND	0.63 J	0.342 J	1.22	0.379 J	ND	25.9	2.75
1,4-Dichlorobenzene	85.1	372	7.7	3.1	ND	1.85	8.48	ND	4.92	2.07	ND	0.601 J	2	3.04	1.35	0.776 J
1,1-Dichloroethene	700	2,900	ND	ND	0.725 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	139	584	ND	51.1	21	ND	10.5	ND	ND	1.55	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	140	580	ND	7.41	13.9	ND	1.51	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	13.9	58.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.428 J	ND	ND	ND	ND
Ethanol	NE	NE	17.5	49	27.2	12.9	31.7	41.1	20.9	56.8	56	10.5	10.4	21.1	496	14.9
Ethylbenzene	370	1,600	2.55	2.58	1.91	1.67	2.08	0.715 J	1.81	2.4	0.423 J	1.61	1.76	2.53	26.1	7.85
Ethyl Acetate	243	1,020	ND	ND	ND	ND	ND	ND	ND	ND	0.594 J	1.14	ND	ND	ND	ND
4-Ethyltoluene	NE	NE	3.79	3.75	0.942 J	2.46	3.35	ND	2.61	2.61	ND	ND	1.63	3.31	18.8	2.56
Trichlorofluoromethane	NE	NE	ND	ND	ND	ND	ND	1.24	ND	ND	1.16	1.15	1.16	ND	1.1 J	1.07 J
Dichlorodifluoromethane	348	1,460	ND	1.98	1.08	1.6	2.08	2.12	2.24	2.15	2.39	2.41	2.06	3.93	2.18	2.18
1,1,2-Trichlorotrifluoroethane	17,400	73,000	ND	ND	ND	ND	ND	0.723 J	ND	ND	0.747 J	0.835 J	ND	0.666 J	ND	ND
n-Heptane	1,390	5,840	32	1.71	3.69	ND	ND	1.51	ND	3.14	0.487 J	1.02	1.06	ND	33	11.8
Hexachloro-1,3-butadiene	42.5	186	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3 J	ND	ND	ND
n-Hexane	2,430	10,200	9.98	3.01	7.97	1.35 J	3.01	4.34	ND	5.15	1.1 J	3.46	2.36	4.3	39.5	8.81
Isopropylbenzene (Cumene)	1,390	5,840	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.526 J	ND	ND	ND	ND
Methylene chloride	2,090	8,760	4.55	1.16	ND	1.08	ND	1.1	0.972	4.13	1.4	2.07	2.52	7.88	12.7	4.13
2-Hexanone	104	438	8.06	5.85	ND	3.3 J	92	5.69	2.8 J	4.79 J	ND	ND	1.52 J	5.69	ND	ND
2-Butanone (MEK)	17,400	73,000	34.5	41	ND	29.1	41	31.8	25.8	39.5	2.67 J	0.743 J	11.5	34.8	11.5	5.4
4-Methyl-2-pentanone (MIBK)	10,400	73,000	ND	1.6 J	ND	ND	14.4	2.54 J	0.733 J	0.565 J	0.381 J	ND	0.557 J	1.49 J	ND	ND

TABLE B-6
QUARTER 1, NOVEMBER 2022

DETECTED VOC RESULTS FROM SOIL-GAS SAMPLES
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

Analyte	VISL Exterior Soil Gas (Residential)	VISL Exterior Soil Gas (Worker)	MW1B-SG	MW2B-SG	MW3B-SG	MW4B-SG	MW8B-SG	MW9-SG	MW10-SG	MW11-SG	MW13-SG	MW14-SG	MW101-SG	MW102-SG	MW103-SG	MW104-SG
			Concentration (µg/m^3)													
Naphthalene	10.4	43.8	ND	ND	ND	ND	7.12	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Propanol	695	2,920	ND	ND	ND	ND	ND	46.9	ND	ND	5.63	2.53 J	ND	ND	ND	ND
Propylene	10,400	43,800	ND	7.51	22	ND	ND	6.96	2.67	ND	ND	4.8	ND	4.06	9.07	2.81
Tetrachloroethene	140	580	1.13 J	8.35	ND	ND	3.42	4.26	ND	1.32 J	ND	1.64	ND	1.36	1.41	0.91 J
Toluene	17,000	73,000	ND	23.7	2.98	4.56	5.91	1.36 J	5.5	ND	1.57 J	14.3	5.99	ND	81	56.5
Trichloroethene	6.7	20	ND	**1,800**	**20.7**	1.17	**122**	**8.73**	**11.1**	**298**	ND	4	ND	ND	ND	1.63
1,2,4-Trimethylbenzene	209	876	4.8	4.3	2.63	3.15	4.49	0.628 J	3.16	3.01	0.54 J	1.64	1.61	3.38	12.9	1.93
1,3,5-Trimethylbenzene	209	876	1.3	1.45	1.2	0.893 J	ND	ND	0.78 J	0.982 J	ND	0.687 J	0.52 J	0.987	5.94	0.756 J
2,2,4-Trimethylpentane	NE	NE	ND	ND	180	1.55	ND	ND	2.51	1.74	0.878 J	2.72	1.07	ND	86.9	17.6
Vinyl chloride	56	930	ND	ND	7.23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m- & p-Xylenes	350	1,500	9.19	9.67	4.19	6.29	8.06	1.37 J	6.2	7.93	1.17 J	5.25	6.11	9.49	73.3	20.1
o-Xylenes	350	1,500	2.88	3.69	0.776 J	2.24	2.82	0.65 J	2.24	3	0.529 J	1.99	1.88	2.64	29	6.2

Notes:

Bold font indicates concentration exceeds the EPA Residential VISL.
Red highlight indicates concentration exceeds the EPA Worker VISL.

EPA	U.S. Environmental Protection Agency
J	Estimated value
µg/m^3	Micrograms per cubic meter
ND	Not detected
NE	Not established
SG	Soil gas
THQ	Total hazard quotient
TR	Total cancer risk
VISL	EPA Vapor Intrusion Screening Level (EPA 2022b)
VOC	Volatile organic compound

TABLE B-7
QUARTER 2, FEBRUARY 2023

DETECTED VOC RESULTS FROM GROUNDWATER SAMPLES
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

Sample Identification	Screened Interval (ft bgs)	Carbon Tetrachloride	Chloroform	Chloromethane	1,1,1-Trichloroethane	1, 1, 2-Trichloroethane	1,1,1,2-Tetrachloroethane	PCE	TCE	1,1-Dichloroethane	1,1-DCE	1,2-DCE (Total)	*cis*-1,2-DCE	*trans*-1,2-DCE	Vinyl Chloride	Chloroethane	Benzene	Sec-Butylbenzene	Methyl-Tert-Butyl-Ether (MTBE)
		EPA MCL or EPA RSL (TR=1E-6, THQ=0.1) Tap water																	
		5	80*	19	200	5	0.57	5	5	2.8	7	NE	70	100	2	NE	5	200	14**
		IDNR SWSs for Non-Protected Groundwater																	
		50	400	NE	70,000	61	350	1,700	76	700	180	NE	350	700	10	14,000	64	NE	1000
Vertical Gradient Wells																			
MW-1B	42-52	ND	ND	ND	ND	ND	ND	ND	2.2 J	ND	ND	365	**362**	3.8 J	**126**	11.4	3.6 J	ND	ND
MW-2B	47-57	ND	ND	ND	ND	ND	ND	ND	**2,180**	ND	ND	997	**945**	52.0	**57.2**	ND	ND	ND	ND
MW-3B	47-57	**29.4**	19.5	ND	ND	ND	ND	**7.7 J**	**715**	ND	ND	650	**624**	25.8	**30.5**	ND	2.9 J	ND	ND
MW-3B duplicate (MW-X)		**36.7**	20.7	ND	ND	ND	ND	**10.3**	**582**	ND	0.96 J	479	**479**	16.5 J	**35.0**	ND	2.9	ND	ND
MW-4B	47-57	ND	ND	0.31 J	ND	ND	ND	ND	1.5	ND	ND	ND	ND	0.15 J	ND	ND	ND	ND	ND
MW-6B	41-51	ND	ND	ND	ND	ND	ND	ND	**7.0**	ND	ND	ND	ND	0.14 J	ND	ND	ND	ND	ND
MW-8B	43-53	ND	ND	ND	ND	ND	ND	ND	**7,700**	ND	ND	10,700	**9,880**	**834**	**258**	ND	**21.9 J**	ND	ND
Delineation Wells																			
MW-9	46-56	ND	0.31 J	ND	2.5	0.18 J	0.16 J	0.44 J	**1,270**	ND	0.75 J	116	**114**	1.5	0.50 J	ND	ND	ND	ND
MW-10A	47-57	ND	ND	ND	ND	ND	ND	ND	**7,830**	ND	ND	2,410	**2,390**	24.9 J	**134**	ND	ND	ND	ND
MW-10B	63-73	ND	ND	ND	ND	ND	ND	ND	**3,670**		ND	978	**970**	8.3 J	**49.4 J**	ND	ND	ND	ND
MW-10B duplicate (MW-Y)		1.3	ND	4.2	1.9	0.41 J	ND	1.5	**3,640**	0.87 J	5.2	973	**973**	ND	**49.4**	0.95 J	2.8	0.15 J	0.49 J
MW-11	40-50	ND	ND	ND	ND	ND	ND	ND	0.30 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-12	35-45	ND	ND	ND	ND	ND	ND	ND	**4,060**	ND	ND	1,370	**702**	**668**	**20.2 J**	ND	ND	ND	ND
MW-13	33-43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.8	2.8	ND	**2.9**	ND	ND	ND	ND
MW-14	50-60	ND	ND	ND	ND	ND	ND	ND	1.2	ND	ND	89.4	**72.0**	17.4	1.8	ND	0.24 J	ND	ND
Bedrock Wells																			
MW-101	117-127	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-102	125-135	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-103	27-37	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-104	77-87	ND	ND	ND	ND	ND	ND	ND	0.90 J	ND	ND	0.83 J	0.54 J	0.29 J	ND	ND	ND	ND	ND

Notes:

All values are in micrograms per liter (µg/L).

* MCL for total trihalomethanes.
** RSL for tap water is listed

Bold font indicates a value exceeds the MCL or RSL.
Shading indicates a value exceeds the IDNR SWS for non-protected groundwater.

EPA	U.S. Environmental Protection Agency	J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit	PCE	Tetrachloroethene
DCE	Dichloroethene	MCL	Maximum Contaminant Level	SWS	Statewide Standard
ft bgs	Feet below ground surface	MW	Monitoring well	TCE	Trichloroethene
IDNR	Iowa Department of Natural Resources	NE	Not established	VOC	Volatile organic compound

TABLE B-8

DETECTED VOC RESULTS FROM GROUNDWATER SAMPLES, QUARTER 3 (MAY 2023)
FORMER CLINTON ENGINES SITE, MAQUOKETA, IOWA

Sample Identification	Screened Interval (ft bgs)	Carbon Tetrachloride	Chloroform	Chloromethane	PCE	TCE	1,1-DCE	1,2-DCE (Total)	*cis*-1,2-DCE	*trans*-1,2-DCE	Vinyl Chloride	Chloroethane	Benzene	Xylene (Total)
		EPA MCL or EPA RSL (TR=1E-6, THQ=0.1) Tap water												
		5	**80***	**19****	**5**	**5**	**7**	**NE**	**70**	**100**	**2**	**NE**	**5**	**10,000**
		IDNR SWSs for Non-Protected Groundwater												
		50	**400**	**NE**	**1,700**	**76**	**180**	**NE**	**350**	**700**	**10**	**14,000**	**64**	**1,400**
MW-1B***	42-52	ND	ND	ND	ND	2.8 J	ND	457	**452**	4.4 J	**184**	11.0	4.7 J	1.5 J
MW-2B	47-57	ND	ND	**36.0**	ND	**2,080**	ND	758	**741**	16.6 J	**44.4**	ND	ND	ND
MW-3B	47-57	**45.2**	19.9	ND	**8.7 J**	**663**	ND	394	**381**	12.5	**10.4**	ND	1.7 J	ND
MW-4B	47-57	ND	ND	ND	ND	1.7	ND	1.0	1.0	ND	0.45 J	ND	ND	ND
MW-6B	41-51	ND	ND	ND	ND	3.0	ND	0.97 J	0.97 J	ND	ND	ND	ND	ND
MW-8B	43-53	ND	ND	**74.4 J**	ND	**9,950**	ND	9,850	**9,390**	**462**	**265**	ND	ND	ND
MW-9	46-56	ND	ND	ND	ND	**909**	ND	50.9	50.9	ND	ND	ND	ND	ND
MW-10A	47-57	ND	ND	ND	ND	**5,720**	ND	2,180	**2,150**	27.6 J	**134**	ND	ND	ND
MW-10B	63-73	ND	11.8 J	ND	ND	**3,880**	ND	1,120	**1,110**	10.9 J	**96.5**	ND	**7.5 J**	ND
MW-10B duplicate (MW-X)		ND	7.4 J	ND	ND	**3,810**	6.2 J	1,110	**1,110**	8.3 J	**92.2**	ND	**6.0 J**	ND
MW-11	40-50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-12†	35-45	ND	ND	ND	ND	**60.4**	ND	34.5	22.4	12.1	0.40 J	ND	ND	ND
MW-13	33-43	ND	ND	ND	ND	0.23 J	ND	14.2	14.0	0.22 J	**2.1**	ND	ND	ND
MW-13 duplicate (MW-Y)		ND	ND	ND	ND	0.23 J	ND	13.7	13.5	0.22 J	1.7	ND	ND	ND
MW-14	50-60	ND	ND	ND	ND	**25.4**	0.32 J	153	**102**	51.7	1.3	ND	ND	ND
MW-101	117-127	ND	ND	ND	ND	ND	ND	0.23 J	0.23 J	ND	ND	ND	ND	ND
MW-102	125-135	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-103	27-37	ND	ND	ND	ND	0.83 J	ND	ND	ND	ND	ND	ND	ND	ND
MW-104	77-87	ND	ND	ND	ND	0.27 J	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

All values are in micrograms per liter (µg/L).

* MCL for total trihalomethanes.
** RSL for tap water is listed
*** Toluene (7.7 µg/L) and cumene (0.54 J) were also detected.
† 1,2-Dichloroethane (0.79 J) was also detected.

Bold font indicates a value exceeds the MCL or RSL.
Shading indicates a value exceeds the IDNR SWS for non-protected groundwater.
The common laboratory contaminants acetone, 2-butanone, and methylene chloride were detected but are not listed.

EPA	U.S. Environmental Protection Agency	MCL	Maximum Contaminant Level	SWS	Statewide Standard
DCE	Dichloroethene	MW	Monitoring well	TCE	Trichloroethene
ft bgs	Feet below ground surface	NE	Not established	THQ	Target hazard quotient
IDNR	Iowa Department of Natural Resources	PCE	Tetrachloroethene	TR	Carcinogenic risk
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit	RSL	Regional Screening Level	VOC	Volatile organic compound

APPENDIX C

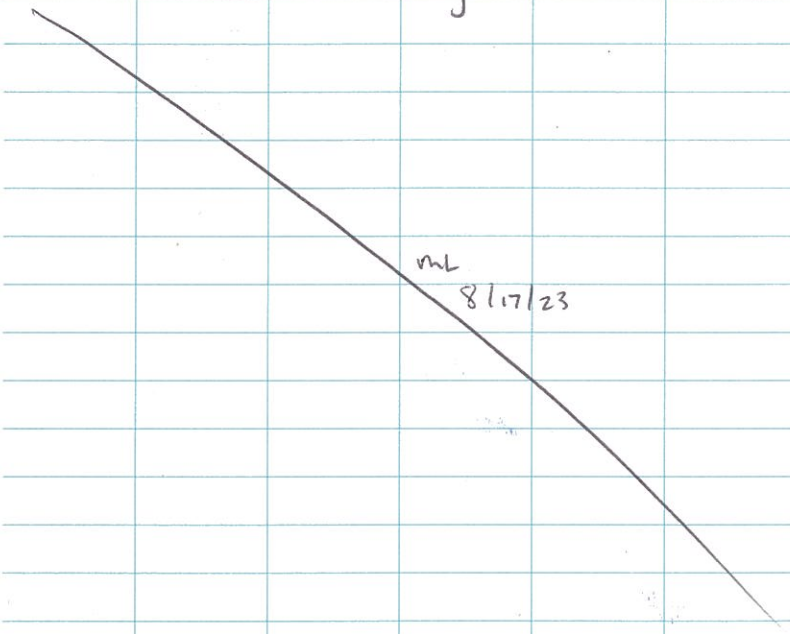
LOGBOOK

8/17/23 Clinton Engines

0900 TT members M. Lamasney and C. Weiss arrive on-site
MW-102
DTW: 64.09 ft
0915 Collected sample MW-102
0932 Arrive at MW-9
DTW: 15.63 ft
0935 Collected sample MW-9
0946 Arrive at MW-101
DTW: 25.11 ft
0952 Collected sample MW-101
1012 Arrive at MW-103
DTW: 16.58 ft
1030 Collected sample MW-103
1040 Arrive at MW-14
DTW: 11.85 ft
1045 Collected sample MW-14
1055 Arrive at MW-104
DTW: 18.10 ft
1058 Collected sample MW-104
1115 Arrive at MW-13
DTW: 7.81 ft
1120 Collected sample MW-13
1120 Collected Sample MW-X
1140 Arrive at MW-12
DTW: 7.44 ft

1145 Collected sample MW-12
1308 Arrive at MW-6B
DTW: 22.45 ft
1312 Collected sample MW-6B
1321 Arrive at MW-4B
DTW: 17.91 ft
1324 Collected sample MW-4B
1333 Arrive at MW-11
DTW: 18.42 ft
1335 Collected sample MW-11
1348 Arrive at MW-2B
DTW: 16.70 ft
1352 Collected sample MW-2B
1400 Arrive at MW-8B
DTW: 14.39 ft
1405 Collected sample MW-8B
1414 Arrive at MW-10A and MW-10B
DTW: 12.52 ft - MW-10A
1418 Collected sample MW-10A
DTW: 14.34 ft - MW-10B
1430 Collected sample MW-10B
1430 Collected sample MW-Y
1447 Arrive at MW-1B
DTW: 19.28 ft
1452 Collected Sample MW-1B

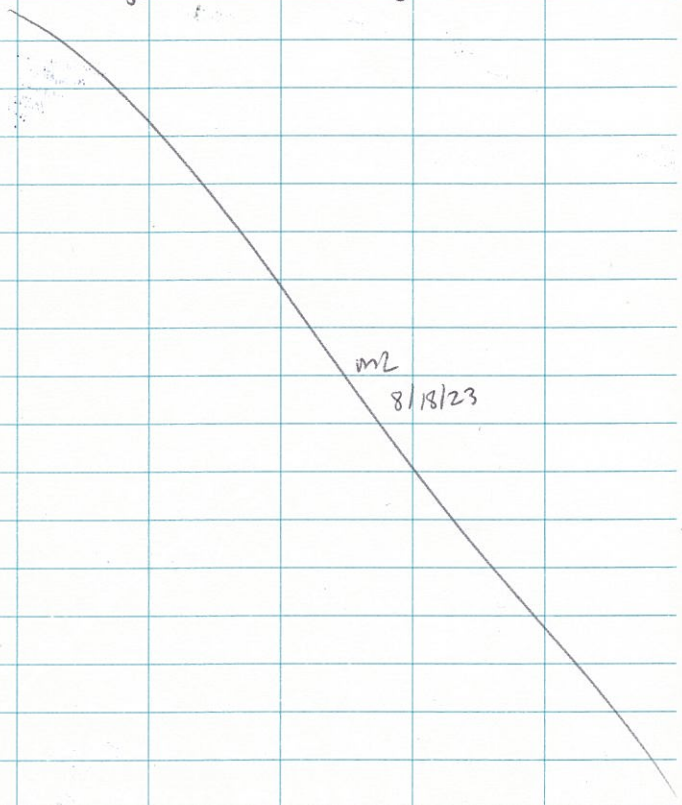
1500 Arrive at MW-3B
DTW: 21.80 ft
1505 Collected sample MW-3B
1510 collected sample field Blank
1515 Collected sample Trip Blank
1530 Leaving site for KC office
2100 Arrive at KC office.
Place samples in fridge
No further work today,
end of day. ML



8/18/23 Clinton Engines

1000 Return samples to iced sample cooler to be picked up by the Pace courier.

1020 Sample cooler retrieved by Pace courier. No further work today, end of day. ——— mz



APPENDIX D

ANALYTICAL DATA PACKAGE AND DATA VALIDATION REPORT

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

August 28, 2023

Kaitlyn Mitchell
Tetra Tech EMI
415 Oak
Kansas City, MO 64106

RE: Project: CLINTON ENGINES
Pace Project No.: 60435728

Dear Kaitlyn Mitchell:

Enclosed are the analytical results for sample(s) received by the laboratory on August 18, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jamie Church
jamie.church@pacelabs.com
314-838-7223
Project Manager

Enclosures

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219
Missouri Inorganic Drinking Water Certification #: 10090
Arkansas Drinking Water
Arkansas Certification #: 88-00679
Illinois Certification #: 2000302023-5
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212023-1
Oklahoma Certification #: 2022-057
Florida: Cert E871149 SEKS WET
Texas Certification #: T104704407-22-16
Utah Certification #: KS000212022-12
Illinois Certification #: 004592
Kansas Field Laboratory Accreditation: # E-92587
Missouri SEKS Micro Certification: 10070

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE SUMMARY

Project: CLINTON ENGINES
Pace Project No.: 60435728

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60435728001	**MW-102**	Water	08/17/23 09:15	08/18/23 15:15
60435728002	**MW-9**	Water	08/17/23 09:35	08/18/23 15:15
60435728003	**MW-101**	Water	08/17/23 09:52	08/18/23 15:15
60435728004	**MW-103**	Water	08/17/23 10:30	08/18/23 15:15
60435728005	**MW-14**	Water	08/17/23 10:45	08/18/23 15:15
60435728006	**MW-104**	Water	08/17/23 10:58	08/18/23 15:15
60435728007	**MW-13**	Water	08/17/23 11:20	08/18/23 15:15
60435728008	**MW-X**	Water	08/17/23 11:20	08/18/23 15:15
60435728009	**MW-12**	Water	08/17/23 11:45	08/18/23 15:15
60435728010	**MW-6B**	Water	08/17/23 13:12	08/18/23 15:15
60435728011	**MW-4B**	Water	08/17/23 13:24	08/18/23 15:15
60435728012	**MW-11**	Water	08/17/23 13:35	08/18/23 15:15
60435728013	**MW-2B**	Water	08/17/23 13:52	08/18/23 15:15
60435728014	**MW-8B**	Water	08/17/23 14:05	08/18/23 15:15
60435728015	**MW-10A**	Water	08/17/23 14:18	08/18/23 15:15
60435728016	**MW-10B**	Water	08/17/23 14:30	08/18/23 15:15
60435728017	**MW-Y**	Water	08/17/23 14:30	08/18/23 15:15
60435728018	**MW-1B**	Water	08/17/23 14:52	08/18/23 15:15
60435728019	**MW-3B**	Water	08/17/23 15:05	08/18/23 15:15
60435728020	**FIELD BLANK**	Water	08/17/23 15:10	08/18/23 15:15
60435728021	**TRIP BLANK**	Water	08/17/23 15:15	08/18/23 15:15

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

SAMPLE ANALYTE COUNT

Project: CLINTON ENGINES
Pace Project No.: 60435728

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60435728001	**MW-102**	EPA 5030B/8260	PGH	69	PASI-K
60435728002	**MW-9**	EPA 5030B/8260	PGH	69	PASI-K
60435728003	**MW-101**	EPA 5030B/8260	PGH	69	PASI-K
60435728004	**MW-103**	EPA 5030B/8260	PGH	69	PASI-K
60435728005	**MW-14**	EPA 5030B/8260	PGH	69	PASI-K
60435728006	**MW-104**	EPA 5030B/8260	PGH	69	PASI-K
60435728007	**MW-13**	EPA 5030B/8260	PGH	69	PASI-K
60435728008	**MW-X**	EPA 5030B/8260	PGH	69	PASI-K
60435728009	**MW-12**	EPA 5030B/8260	PGH	69	PASI-K
60435728010	**MW-6B**	EPA 5030B/8260	PGH	69	PASI-K
60435728011	**MW-4B**	EPA 5030B/8260	PGH	69	PASI-K
60435728012	**MW-11**	EPA 5030B/8260	PGH	69	PASI-K
60435728013	**MW-2B**	EPA 5030B/8260	PGH	69	PASI-K
60435728014	**MW-8B**	EPA 5030B/8260	PGH	69	PASI-K
60435728015	**MW-10A**	EPA 5030B/8260	PGH	69	PASI-K
60435728016	**MW-10B**	EPA 5030B/8260	PGH	69	PASI-K
60435728017	**MW-Y**	EPA 5030B/8260	PGH	69	PASI-K
60435728018	**MW-1B**	EPA 5030B/8260	PGH	69	PASI-K
60435728019	**MW-3B**	EPA 5030B/8260	PGH	69	PASI-K
60435728020	**FIELD BLANK**	EPA 5030B/8260	PGH	69	PASI-K
60435728021	**TRIP BLANK**	EPA 5030B/8260	PGH	69	PASI-K

PASI-K = Pace Analytical Services - Kansas City

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-102 **Lab ID: 60435728001** Collected: 08/17/23 09:15 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**28.1**	ug/L	10.0	2.5	1		08/21/23 09:03	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 09:03	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 09:03	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 09:03	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 09:03	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 09:03	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 09:03	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 09:03	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 09:03	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 09:03	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:03	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 09:03	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 09:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 09:03	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 09:03	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 09:03	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/21/23 09:03	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 09:03	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 09:03	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 09:03	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 09:03	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 09:03	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 09:03	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 09:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 09:03	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 09:03	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 09:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 09:03	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	1.0	0.22	1		08/21/23 09:03	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 09:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.13	1		08/21/23 09:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.10	1		08/21/23 09:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 09:03	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 09:03	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 09:03	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 09:03	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 09:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 09:03	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 09:03	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 09:03	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 09:03	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 09:03	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 09:03	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-102 **Lab ID: 60435728001** Collected: 08/17/23 09:15 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 09:03	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 09:03	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 09:03	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:03	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 09:03	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 09:03	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 09:03	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 09:03	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 09:03	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 09:03	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 09:03	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 09:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 09:03	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.21	1		08/21/23 09:03	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 09:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 09:03	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 09:03	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 09:03	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.17	1		08/21/23 09:03	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 09:03	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	80-120		1		08/21/23 09:03	460-00-4	
1,2-Dichlorobenzene-d4 (S)	102	%	80-120		1		08/21/23 09:03	2199-69-1	
Toluene-d8 (S)	98	%	80-120		1		08/21/23 09:03	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 09:03		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-9 **Lab ID: 60435728002** Collected: 08/17/23 09:35 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	ND	ug/L	200	50.8	20		08/21/23 11:20	67-64-1	
Benzene	ND	ug/L	20.0	2.7	20		08/21/23 11:20	71-43-2	
Bromobenzene	ND	ug/L	20.0	1.8	20		08/21/23 11:20	108-86-1	
Bromochloromethane	ND	ug/L	20.0	4.0	20		08/21/23 11:20	74-97-5	
Bromodichloromethane	ND	ug/L	20.0	3.1	20		08/21/23 11:20	75-27-4	
Bromoform	ND	ug/L	20.0	13.5	20		08/21/23 11:20	75-25-2	
Bromomethane	ND	ug/L	100	9.2	20		08/21/23 11:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	200	19.5	20		08/21/23 11:20	78-93-3	
n-Butylbenzene	ND	ug/L	20.0	3.1	20		08/21/23 11:20	104-51-8	
sec-Butylbenzene	ND	ug/L	20.0	2.2	20		08/21/23 11:20	135-98-8	
tert-Butylbenzene	ND	ug/L	20.0	2.4	20		08/21/23 11:20	98-06-6	
Carbon disulfide	ND	ug/L	100	19.6	20		08/21/23 11:20	75-15-0	
Carbon tetrachloride	ND	ug/L	20.0	3.4	20		08/21/23 11:20	56-23-5	
Chlorobenzene	ND	ug/L	20.0	1.8	20		08/21/23 11:20	108-90-7	
Chloroethane	ND	ug/L	20.0	7.5	20		08/21/23 11:20	75-00-3	
Chloroform	ND	ug/L	20.0	4.4	20		08/21/23 11:20	67-66-3	
Chloromethane	ND	ug/L	20.0	5.7	20		08/21/23 11:20	74-87-3	
2-Chlorotoluene	ND	ug/L	20.0	2.2	20		08/21/23 11:20	95-49-8	
4-Chlorotoluene	ND	ug/L	20.0	3.0	20		08/21/23 11:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	50.0	15.6	20		08/21/23 11:20	96-12-8	
Dibromochloromethane	ND	ug/L	20.0	6.1	20		08/21/23 11:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	20.0	3.9	20		08/21/23 11:20	106-93-4	
Dibromomethane	ND	ug/L	20.0	2.2	20		08/21/23 11:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	20.0	2.5	20		08/21/23 11:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	20.0	2.6	20		08/21/23 11:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	20.0	2.7	20		08/21/23 11:20	106-46-7	
Dichlorodifluoromethane	ND	ug/L	20.0	4.0	20		08/21/23 11:20	75-71-8	
1,1-Dichloroethane	ND	ug/L	20.0	2.4	20		08/21/23 11:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	20.0	4.2	20		08/21/23 11:20	107-06-2	
1,2-Dichloroethene (Total)	**79.8**	ug/L	20.0	4.4	20		08/21/23 11:20	540-59-0	
1,1-Dichloroethene	ND	ug/L	20.0	4.4	20		08/21/23 11:20	75-35-4	
cis-1,2-Dichloroethene	**74.9**	ug/L	20.0	2.6	20		08/21/23 11:20	156-59-2	
trans-1,2-Dichloroethene	**4.9J**	ug/L	20.0	2.0	20		08/21/23 11:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	20.0	2.8	20		08/21/23 11:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	20.0	2.1	20		08/21/23 11:20	142-28-9	
2,2-Dichloropropane	ND	ug/L	20.0	3.2	20		08/21/23 11:20	594-20-7	
1,1-Dichloropropene	ND	ug/L	20.0	2.7	20		08/21/23 11:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	20.0	1.6	20		08/21/23 11:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	20.0	3.6	20		08/21/23 11:20	10061-02-6	
Ethylbenzene	ND	ug/L	20.0	2.4	20		08/21/23 11:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	20.0	8.3	20		08/21/23 11:20	87-68-3	
2-Hexanone	ND	ug/L	200	22.0	20		08/21/23 11:20	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	20.0	1.9	20		08/21/23 11:20	98-82-8	
p-Isopropyltoluene	ND	ug/L	20.0	2.5	20		08/21/23 11:20	99-87-6	
Methylene Chloride	ND	ug/L	20.0	7.8	20		08/21/23 11:20	75-09-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-9 **Lab ID: 60435728002** Collected: 08/17/23 09:35 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	200	14.7	20		08/21/23 11:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	20.0	2.6	20		08/21/23 11:20	1634-04-4	
Naphthalene	ND	ug/L	200	16.4	20		08/21/23 11:20	91-20-3	
n-Propylbenzene	ND	ug/L	20.0	2.4	20		08/21/23 11:20	103-65-1	
Styrene	ND	ug/L	20.0	2.5	20		08/21/23 11:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	20.0	1.7	20		08/21/23 11:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	20.0	3.1	20		08/21/23 11:20	79-34-5	
Tetrachloroethene	ND	ug/L	20.0	6.6	20		08/21/23 11:20	127-18-4	
Toluene	ND	ug/L	20.0	5.1	20		08/21/23 11:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	20.0	18.5	20		08/21/23 11:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	20.0	14.6	20		08/21/23 11:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	20.0	2.2	20		08/21/23 11:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	20.0	2.8	20		08/21/23 11:20	79-00-5	
Trichloroethene	**1120**	ug/L	20.0	4.2	20		08/21/23 11:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	20.0	3.3	20		08/21/23 11:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	50.0	8.2	20		08/21/23 11:20	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	20.0	6.5	20		08/21/23 11:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	20.0	1.8	20		08/21/23 11:20	108-67-8	
Vinyl chloride	ND	ug/L	20.0	3.3	20		08/21/23 11:20	75-01-4	
Xylene (Total)	ND	ug/L	60.0	5.6	20		08/21/23 11:20	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	80-120		20		08/21/23 11:20	460-00-4	
1,2-Dichlorobenzene-d4 (S)	108	%	80-120		20		08/21/23 11:20	2199-69-1	
Toluene-d8 (S)	97	%	80-120		20		08/21/23 11:20	2037-26-5	
Preservation pH	**1.0**		0.10		20		08/21/23 11:20		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-101 **Lab ID: 60435728003** Collected: 08/17/23 09:52 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**8.4J**	ug/L	10.0	2.5	1		08/21/23 09:17	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 09:17	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 09:17	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 09:17	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 09:17	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 09:17	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 09:17	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 09:17	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 09:17	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 09:17	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:17	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 09:17	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 09:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 09:17	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 09:17	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 09:17	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/21/23 09:17	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 09:17	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 09:17	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 09:17	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 09:17	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 09:17	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 09:17	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:17	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 09:17	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 09:17	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 09:17	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 09:17	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 09:17	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	1.0	0.22	1		08/21/23 09:17	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 09:17	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.13	1		08/21/23 09:17	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.10	1		08/21/23 09:17	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 09:17	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 09:17	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 09:17	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 09:17	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 09:17	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 09:17	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 09:17	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 09:17	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 09:17	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 09:17	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 09:17	75-09-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-101 **Lab ID: 60435728003** Collected: 08/17/23 09:52 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 09:17	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 09:17	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 09:17	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:17	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 09:17	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 09:17	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 09:17	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 09:17	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 09:17	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 09:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 09:17	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 09:17	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 09:17	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.21	1		08/21/23 09:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 09:17	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 09:17	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 09:17	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 09:17	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.17	1		08/21/23 09:17	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 09:17	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	80-120		1		08/21/23 09:17	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	80-120		1		08/21/23 09:17	2199-69-1	
Toluene-d8 (S)	101	%	80-120		1		08/21/23 09:17	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 09:17		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-103 **Lab ID: 60435728004** Collected: 08/17/23 10:30 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**23.6**	ug/L	10.0	2.5	1		08/21/23 09:30	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 09:30	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 09:30	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 09:30	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 09:30	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 09:30	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 09:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 09:30	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 09:30	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 09:30	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:30	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 09:30	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 09:30	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 09:30	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 09:30	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 09:30	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/21/23 09:30	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 09:30	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 09:30	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 09:30	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 09:30	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 09:30	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 09:30	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 09:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 09:30	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 09:30	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 09:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 09:30	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	1.0	0.22	1		08/21/23 09:30	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 09:30	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.13	1		08/21/23 09:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.10	1		08/21/23 09:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 09:30	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 09:30	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 09:30	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 09:30	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 09:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 09:30	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:30	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 09:30	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 09:30	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 09:30	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 09:30	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 09:30	75-09-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-103 **Lab ID: 60435728004** Collected: 08/17/23 10:30 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 09:30	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 09:30	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 09:30	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:30	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 09:30	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 09:30	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 09:30	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 09:30	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 09:30	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 09:30	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 09:30	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 09:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 09:30	79-00-5	
Trichloroethene	**0.83J**	ug/L	1.0	0.21	1		08/21/23 09:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 09:30	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 09:30	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 09:30	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 09:30	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.17	1		08/21/23 09:30	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 09:30	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	80-120		1		08/21/23 09:30	460-00-4	
1,2-Dichlorobenzene-d4 (S)	102	%	80-120		1		08/21/23 09:30	2199-69-1	
Toluene-d8 (S)	97	%	80-120		1		08/21/23 09:30	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 09:30		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-14 **Lab ID: 60435728005** Collected: 08/17/23 10:45 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**31.2**	ug/L	10.0	2.5	1		08/21/23 10:52	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 10:52	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 10:52	108-86-1	
Bromochloromethane	**0.30J**	ug/L	1.0	0.20	1		08/21/23 10:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 10:52	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 10:52	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 10:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 10:52	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 10:52	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 10:52	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:52	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 10:52	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 10:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 10:52	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 10:52	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 10:52	67-66-3	
Chloromethane	**0.63J**	ug/L	1.0	0.28	1		08/21/23 10:52	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 10:52	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 10:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 10:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 10:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 10:52	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 10:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 10:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 10:52	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 10:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 10:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 10:52	107-06-2	
1,2-Dichloroethene (Total)	**35.9**	ug/L	1.0	0.22	1		08/21/23 10:52	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 10:52	75-35-4	
cis-1,2-Dichloroethene	**30.0**	ug/L	1.0	0.13	1		08/21/23 10:52	156-59-2	
trans-1,2-Dichloroethene	**5.8**	ug/L	1.0	0.10	1		08/21/23 10:52	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 10:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 10:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 10:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 10:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 10:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 10:52	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 10:52	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 10:52	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 10:52	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 10:52	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 10:52	75-09-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-14 **Lab ID: 60435728005** Collected: 08/17/23 10:45 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 10:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 10:52	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 10:52	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:52	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 10:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 10:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 10:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 10:52	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 10:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 10:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 10:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 10:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 10:52	79-00-5	
Trichloroethene	**1.5**	ug/L	1.0	0.21	1		08/21/23 10:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 10:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 10:52	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 10:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 10:52	108-67-8	
Vinyl chloride	**0.26J**	ug/L	1.0	0.17	1		08/21/23 10:52	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 10:52	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	80-120		1		08/21/23 10:52	460-00-4	
1,2-Dichlorobenzene-d4 (S)	102	%	80-120		1		08/21/23 10:52	2199-69-1	
Toluene-d8 (S)	100	%	80-120		1		08/21/23 10:52	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 10:52		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-104 **Lab ID: 60435728006** Collected: 08/17/23 10:58 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**9.5J**	ug/L	10.0	2.5	1		08/21/23 09:44	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 09:44	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 09:44	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 09:44	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 09:44	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 09:44	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 09:44	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 09:44	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 09:44	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 09:44	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:44	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 09:44	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 09:44	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 09:44	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 09:44	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 09:44	67-66-3	
Chloromethane	**0.45J**	ug/L	1.0	0.28	1		08/21/23 09:44	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 09:44	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 09:44	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 09:44	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 09:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 09:44	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 09:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 09:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 09:44	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 09:44	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 09:44	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 09:44	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	1.0	0.22	1		08/21/23 09:44	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 09:44	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.13	1		08/21/23 09:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.10	1		08/21/23 09:44	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 09:44	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 09:44	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 09:44	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 09:44	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 09:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 09:44	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:44	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 09:44	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 09:44	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 09:44	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 09:44	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 09:44	75-09-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-104 **Lab ID: 60435728006** Collected: 08/17/23 10:58 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
	Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 09:44	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 09:44	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 09:44	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:44	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 09:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 09:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 09:44	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 09:44	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 09:44	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 09:44	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 09:44	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 09:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 09:44	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.21	1		08/21/23 09:44	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 09:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 09:44	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 09:44	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 09:44	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.17	1		08/21/23 09:44	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 09:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	80-120		1		08/21/23 09:44	460-00-4	
1,2-Dichlorobenzene-d4 (S)	102	%	80-120		1		08/21/23 09:44	2199-69-1	
Toluene-d8 (S)	99	%	80-120		1		08/21/23 09:44	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 09:44		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-13 **Lab ID: 60435728007** Collected: 08/17/23 11:20 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**18.8**	ug/L	10.0	2.5	1		08/21/23 09:58	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 09:58	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 09:58	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 09:58	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 09:58	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 09:58	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 09:58	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 09:58	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 09:58	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 09:58	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:58	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 09:58	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 09:58	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 09:58	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 09:58	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 09:58	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/21/23 09:58	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 09:58	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 09:58	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 09:58	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 09:58	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 09:58	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 09:58	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:58	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 09:58	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 09:58	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 09:58	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 09:58	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 09:58	107-06-2	
1,2-Dichloroethene (Total)	**10.6**	ug/L	1.0	0.22	1		08/21/23 09:58	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 09:58	75-35-4	
cis-1,2-Dichloroethene	**10.5**	ug/L	1.0	0.13	1		08/21/23 09:58	156-59-2	
trans-1,2-Dichloroethene	**0.14J**	ug/L	1.0	0.10	1		08/21/23 09:58	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 09:58	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 09:58	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 09:58	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 09:58	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 09:58	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 09:58	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:58	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 09:58	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 09:58	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 09:58	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 09:58	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 09:58	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-13 **Lab ID: 60435728007** Collected: 08/17/23 11:20 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 09:58	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 09:58	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 09:58	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 09:58	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 09:58	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 09:58	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 09:58	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 09:58	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 09:58	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 09:58	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 09:58	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 09:58	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 09:58	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.21	1		08/21/23 09:58	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 09:58	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 09:58	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 09:58	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 09:58	108-67-8	
Vinyl chloride	**0.97J**	ug/L	1.0	0.17	1		08/21/23 09:58	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 09:58	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	104	%	80-120		1		08/21/23 09:58	460-00-4	
1,2-Dichlorobenzene-d4 (S)	105	%	80-120		1		08/21/23 09:58	2199-69-1	
Toluene-d8 (S)	99	%	80-120		1		08/21/23 09:58	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 09:58		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-X **Lab ID: 60435728008** Collected: 08/17/23 11:20 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**18.1**	ug/L	10.0	2.5	1		08/23/23 12:29	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/23/23 12:29	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/23/23 12:29	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/23/23 12:29	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/23/23 12:29	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/23/23 12:29	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/23/23 12:29	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/23/23 12:29	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/23/23 12:29	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/23/23 12:29	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:29	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/23/23 12:29	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/23/23 12:29	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/23/23 12:29	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/23/23 12:29	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/23/23 12:29	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/23/23 12:29	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/23/23 12:29	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/23/23 12:29	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/23/23 12:29	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/23/23 12:29	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/23/23 12:29	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/23/23 12:29	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/23/23 12:29	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/23/23 12:29	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/23/23 12:29	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/23/23 12:29	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/23/23 12:29	107-06-2	
1,2-Dichloroethene (Total)	**10.4**	ug/L	1.0	0.22	1		08/23/23 12:29	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/23/23 12:29	75-35-4	
cis-1,2-Dichloroethene	**10.4**	ug/L	1.0	0.13	1		08/23/23 12:29	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.10	1		08/23/23 12:29	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/23/23 12:29	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/23/23 12:29	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/23/23 12:29	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/23/23 12:29	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/23/23 12:29	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/23/23 12:29	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:29	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/23/23 12:29	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/23/23 12:29	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/23/23 12:29	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/23/23 12:29	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/23/23 12:29	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-X **Lab ID: 60435728008** Collected: 08/17/23 11:20 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/23/23 12:29	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/23/23 12:29	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/23/23 12:29	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:29	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/23/23 12:29	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/23/23 12:29	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/23/23 12:29	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/23/23 12:29	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/23/23 12:29	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/23/23 12:29	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/23/23 12:29	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/23/23 12:29	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/23/23 12:29	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.21	1		08/23/23 12:29	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/23/23 12:29	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/23/23 12:29	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/23/23 12:29	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/23/23 12:29	108-67-8	
Vinyl chloride	**0.85J**	ug/L	1.0	0.17	1		08/23/23 12:29	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/23/23 12:29	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	80-120		1		08/23/23 12:29	460-00-4	
1,2-Dichlorobenzene-d4 (S)	103	%	80-120		1		08/23/23 12:29	2199-69-1	
Toluene-d8 (S)	100	%	80-120		1		08/23/23 12:29	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/23/23 12:29		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-12 **Lab ID: 60435728009** Collected: 08/17/23 11:45 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**31.1**	ug/L	10.0	2.5	1		08/21/23 11:06	67-64-1	
Benzene	**0.22J**	ug/L	1.0	0.14	1		08/21/23 11:06	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 11:06	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 11:06	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 11:06	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 11:06	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 11:06	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 11:06	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 11:06	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 11:06	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 11:06	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 11:06	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 11:06	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 11:06	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 11:06	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 11:06	67-66-3	
Chloromethane	**0.50J**	ug/L	1.0	0.28	1		08/21/23 11:06	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 11:06	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 11:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 11:06	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 11:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 11:06	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 11:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 11:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 11:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 11:06	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 11:06	75-71-8	
1,1-Dichloroethane	**0.66J**	ug/L	1.0	0.12	1		08/21/23 11:06	75-34-3	
1,2-Dichloroethane	**0.50J**	ug/L	1.0	0.21	1		08/21/23 11:06	107-06-2	
1,2-Dichloroethene (Total)	**233**	ug/L	1.0	0.22	1		08/21/23 11:06	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 11:06	75-35-4	
cis-1,2-Dichloroethene	**148**	ug/L	1.0	0.13	1		08/21/23 11:06	156-59-2	
trans-1,2-Dichloroethene	**85.6**	ug/L	1.0	0.10	1		08/21/23 11:06	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 11:06	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 11:06	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 11:06	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 11:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 11:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 11:06	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 11:06	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 11:06	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 11:06	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 11:06	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 11:06	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 11:06	75-09-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-12 **Lab ID: 60435728009** Collected: 08/17/23 11:45 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
	Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 11:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 11:06	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 11:06	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 11:06	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 11:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 11:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 11:06	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 11:06	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 11:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 11:06	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 11:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 11:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 11:06	79-00-5	
Trichloroethene	**334**	ug/L	10.0	2.1	10		08/23/23 13:10	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 11:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 11:06	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 11:06	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 11:06	108-67-8	
Vinyl chloride	**1.0**	ug/L	1.0	0.17	1		08/21/23 11:06	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 11:06	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	80-120		1		08/21/23 11:06	460-00-4	
1,2-Dichlorobenzene-d4 (S)	104	%	80-120		1		08/21/23 11:06	2199-69-1	
Toluene-d8 (S)	98	%	80-120		1		08/21/23 11:06	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 11:06		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-6B **Lab ID: 60435728010** Collected: 08/17/23 13:12 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**8.4J**	ug/L	10.0	2.5	1		08/21/23 10:11	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 10:11	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 10:11	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 10:11	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 10:11	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 10:11	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 10:11	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 10:11	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 10:11	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 10:11	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:11	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 10:11	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 10:11	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 10:11	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 10:11	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 10:11	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/21/23 10:11	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 10:11	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 10:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 10:11	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 10:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 10:11	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 10:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 10:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 10:11	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 10:11	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 10:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 10:11	107-06-2	
1,2-Dichloroethene (Total)	**0.91J**	ug/L	1.0	0.22	1		08/21/23 10:11	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 10:11	75-35-4	
cis-1,2-Dichloroethene	**0.91J**	ug/L	1.0	0.13	1		08/21/23 10:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.10	1		08/21/23 10:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 10:11	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 10:11	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 10:11	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 10:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 10:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 10:11	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:11	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 10:11	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 10:11	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 10:11	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 10:11	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 10:11	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-6B **Lab ID: 60435728010** Collected: 08/17/23 13:12 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
	Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 10:11	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 10:11	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 10:11	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:11	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 10:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 10:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 10:11	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 10:11	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 10:11	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 10:11	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 10:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 10:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 10:11	79-00-5	
Trichloroethene	**4.6**	ug/L	1.0	0.21	1		08/21/23 10:11	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 10:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 10:11	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 10:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 10:11	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.17	1		08/21/23 10:11	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 10:11	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	80-120		1		08/21/23 10:11	460-00-4	
1,2-Dichlorobenzene-d4 (S)	103	%	80-120		1		08/21/23 10:11	2199-69-1	
Toluene-d8 (S)	97	%	80-120		1		08/21/23 10:11	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 10:11		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-4B **Lab ID: 60435728011** Collected: 08/17/23 13:24 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**5.4J**	ug/L	10.0	2.5	1		08/21/23 10:25	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 10:25	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 10:25	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 10:25	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 10:25	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 10:25	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 10:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 10:25	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 10:25	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 10:25	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:25	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 10:25	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 10:25	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 10:25	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 10:25	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 10:25	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/21/23 10:25	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 10:25	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 10:25	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 10:25	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 10:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 10:25	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 10:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 10:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 10:25	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 10:25	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 10:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 10:25	107-06-2	
1,2-Dichloroethene (Total)	**2.5**	ug/L	1.0	0.22	1		08/21/23 10:25	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 10:25	75-35-4	
cis-1,2-Dichloroethene	**2.3**	ug/L	1.0	0.13	1		08/21/23 10:25	156-59-2	
trans-1,2-Dichloroethene	**0.20J**	ug/L	1.0	0.10	1		08/21/23 10:25	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 10:25	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 10:25	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 10:25	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 10:25	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 10:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 10:25	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:25	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 10:25	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 10:25	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 10:25	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 10:25	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 10:25	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-4B **Lab ID: 60435728011** Collected: 08/17/23 13:24 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 10:25	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 10:25	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 10:25	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:25	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 10:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 10:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 10:25	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 10:25	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 10:25	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 10:25	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 10:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 10:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 10:25	79-00-5	
Trichloroethene	**5.0**	ug/L	1.0	0.21	1		08/21/23 10:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 10:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 10:25	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 10:25	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 10:25	108-67-8	
Vinyl chloride	**0.44J**	ug/L	1.0	0.17	1		08/21/23 10:25	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 10:25	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	80-120		1		08/21/23 10:25	460-00-4	
1,2-Dichlorobenzene-d4 (S)	103	%	80-120		1		08/21/23 10:25	2199-69-1	
Toluene-d8 (S)	98	%	80-120		1		08/21/23 10:25	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 10:25		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-11 **Lab ID: 60435728012** Collected: 08/17/23 13:35 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**10.8**	ug/L	10.0	2.5	1		08/21/23 10:39	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 10:39	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 10:39	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 10:39	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 10:39	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 10:39	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 10:39	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 10:39	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 10:39	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 10:39	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:39	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 10:39	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 10:39	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 10:39	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 10:39	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 10:39	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/21/23 10:39	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 10:39	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 10:39	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 10:39	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 10:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 10:39	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 10:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 10:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 10:39	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 10:39	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 10:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 10:39	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	1.0	0.22	1		08/21/23 10:39	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 10:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.13	1		08/21/23 10:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.10	1		08/21/23 10:39	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 10:39	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 10:39	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 10:39	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 10:39	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 10:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 10:39	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:39	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 10:39	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 10:39	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 10:39	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 10:39	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 10:39	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-11 **Lab ID: 60435728012** Collected: 08/17/23 13:35 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 10:39	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 10:39	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 10:39	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 10:39	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 10:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 10:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 10:39	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 10:39	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 10:39	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 10:39	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 10:39	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 10:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 10:39	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.21	1		08/21/23 10:39	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 10:39	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 10:39	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 10:39	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 10:39	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.17	1		08/21/23 10:39	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 10:39	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	80-120		1		08/21/23 10:39	460-00-4	
1,2-Dichlorobenzene-d4 (S)	101	%	80-120		1		08/21/23 10:39	2199-69-1	
Toluene-d8 (S)	99	%	80-120		1		08/21/23 10:39	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 10:39		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-2B **Lab ID: 60435728013** Collected: 08/17/23 13:52 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**61.4**	ug/L	10.0	2.5	1		08/23/23 12:43	67-64-1	
Benzene	**0.14J**	ug/L	1.0	0.14	1		08/23/23 12:43	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/23/23 12:43	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/23/23 12:43	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/23/23 12:43	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/23/23 12:43	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/23/23 12:43	74-83-9	
2-Butanone (MEK)	**3.5J**	ug/L	10.0	0.98	1		08/23/23 12:43	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/23/23 12:43	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/23/23 12:43	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:43	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/23/23 12:43	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/23/23 12:43	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/23/23 12:43	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/23/23 12:43	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/23/23 12:43	67-66-3	
Chloromethane	**0.36J**	ug/L	1.0	0.28	1		08/23/23 12:43	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/23/23 12:43	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/23/23 12:43	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/23/23 12:43	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/23/23 12:43	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/23/23 12:43	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/23/23 12:43	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/23/23 12:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/23/23 12:43	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/23/23 12:43	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/23/23 12:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/23/23 12:43	107-06-2	
1,2-Dichloroethene (Total)	**38.7**	ug/L	1.0	0.22	1		08/23/23 12:43	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/23/23 12:43	75-35-4	
cis-1,2-Dichloroethene	**37.2**	ug/L	1.0	0.13	1		08/23/23 12:43	156-59-2	
trans-1,2-Dichloroethene	**1.5**	ug/L	1.0	0.10	1		08/23/23 12:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/23/23 12:43	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/23/23 12:43	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/23/23 12:43	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/23/23 12:43	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/23/23 12:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/23/23 12:43	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:43	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/23/23 12:43	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/23/23 12:43	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/23/23 12:43	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/23/23 12:43	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/23/23 12:43	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-2B **Lab ID: 60435728013** Collected: 08/17/23 13:52 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/23/23 12:43	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/23/23 12:43	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/23/23 12:43	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:43	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/23/23 12:43	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/23/23 12:43	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/23/23 12:43	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/23/23 12:43	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/23/23 12:43	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/23/23 12:43	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/23/23 12:43	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/23/23 12:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/23/23 12:43	79-00-5	
Trichloroethene	**147**	ug/L	1.0	0.21	1		08/23/23 12:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/23/23 12:43	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/23/23 12:43	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/23/23 12:43	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/23/23 12:43	108-67-8	
Vinyl chloride	**0.28J**	ug/L	1.0	0.17	1		08/23/23 12:43	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/23/23 12:43	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	97	%	80-120		1		08/23/23 12:43	460-00-4	
1,2-Dichlorobenzene-d4 (S)	104	%	80-120		1		08/23/23 12:43	2199-69-1	
Toluene-d8 (S)	98	%	80-120		1		08/23/23 12:43	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/23/23 12:43		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-8B **Lab ID: 60435728014** Collected: 08/17/23 14:05 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	ND	ug/L	1000	254	100		08/21/23 12:01	67-64-1	
Benzene	**23.4J**	ug/L	100	13.6	100		08/21/23 12:01	71-43-2	
Bromobenzene	ND	ug/L	100	8.8	100		08/21/23 12:01	108-86-1	
Bromochloromethane	ND	ug/L	100	20.2	100		08/21/23 12:01	74-97-5	
Bromodichloromethane	ND	ug/L	100	15.5	100		08/21/23 12:01	75-27-4	
Bromoform	ND	ug/L	100	67.6	100		08/21/23 12:01	75-25-2	
Bromomethane	ND	ug/L	500	46.0	100		08/21/23 12:01	74-83-9	
2-Butanone (MEK)	ND	ug/L	1000	97.5	100		08/21/23 12:01	78-93-3	
n-Butylbenzene	ND	ug/L	100	15.3	100		08/21/23 12:01	104-51-8	
sec-Butylbenzene	ND	ug/L	100	11.0	100		08/21/23 12:01	135-98-8	
tert-Butylbenzene	ND	ug/L	100	12.0	100		08/21/23 12:01	98-06-6	
Carbon disulfide	ND	ug/L	500	97.8	100		08/21/23 12:01	75-15-0	
Carbon tetrachloride	ND	ug/L	100	17.2	100		08/21/23 12:01	56-23-5	
Chlorobenzene	ND	ug/L	100	8.9	100		08/21/23 12:01	108-90-7	
Chloroethane	ND	ug/L	100	37.4	100		08/21/23 12:01	75-00-3	
Chloroform	ND	ug/L	100	22.0	100		08/21/23 12:01	67-66-3	
Chloromethane	ND	ug/L	100	28.3	100		08/21/23 12:01	74-87-3	
2-Chlorotoluene	ND	ug/L	100	10.8	100		08/21/23 12:01	95-49-8	
4-Chlorotoluene	ND	ug/L	100	14.9	100		08/21/23 12:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	250	78.0	100		08/21/23 12:01	96-12-8	
Dibromochloromethane	ND	ug/L	100	30.5	100		08/21/23 12:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	100	19.6	100		08/21/23 12:01	106-93-4	
Dibromomethane	ND	ug/L	100	10.9	100		08/21/23 12:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	100	12.5	100		08/21/23 12:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	100	13.2	100		08/21/23 12:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	100	13.3	100		08/21/23 12:01	106-46-7	
Dichlorodifluoromethane	ND	ug/L	100	19.9	100		08/21/23 12:01	75-71-8	
1,1-Dichloroethane	ND	ug/L	100	12.2	100		08/21/23 12:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	100	21.2	100		08/21/23 12:01	107-06-2	
1,2-Dichloroethene (Total)	**11300**	ug/L	100	22.2	100		08/21/23 12:01	540-59-0	
1,1-Dichloroethene	ND	ug/L	100	21.9	100		08/21/23 12:01	75-35-4	
cis-1,2-Dichloroethene	**10800**	ug/L	100	12.9	100		08/21/23 12:01	156-59-2	
trans-1,2-Dichloroethene	**470**	ug/L	100	10.2	100		08/21/23 12:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	100	13.9	100		08/21/23 12:01	78-87-5	
1,3-Dichloropropane	ND	ug/L	100	10.4	100		08/21/23 12:01	142-28-9	
2,2-Dichloropropane	ND	ug/L	100	16.2	100		08/21/23 12:01	594-20-7	
1,1-Dichloropropene	ND	ug/L	100	13.5	100		08/21/23 12:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	100	7.8	100		08/21/23 12:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	100	18.2	100		08/21/23 12:01	10061-02-6	
Ethylbenzene	ND	ug/L	100	12.0	100		08/21/23 12:01	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	100	41.7	100		08/21/23 12:01	87-68-3	
2-Hexanone	ND	ug/L	1000	110	100		08/21/23 12:01	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	100	9.7	100		08/21/23 12:01	98-82-8	
p-Isopropyltoluene	ND	ug/L	100	12.7	100		08/21/23 12:01	99-87-6	
Methylene Chloride	ND	ug/L	100	39.1	100		08/21/23 12:01	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-8B **Lab ID: 60435728014** Collected: 08/17/23 14:05 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
	Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	1000	73.6	100		08/21/23 12:01	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	100	12.8	100		08/21/23 12:01	1634-04-4	
Naphthalene	ND	ug/L	1000	82.2	100		08/21/23 12:01	91-20-3	
n-Propylbenzene	ND	ug/L	100	11.9	100		08/21/23 12:01	103-65-1	
Styrene	ND	ug/L	100	12.3	100		08/21/23 12:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	100	8.4	100		08/21/23 12:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	100	15.4	100		08/21/23 12:01	79-34-5	
Tetrachloroethene	ND	ug/L	100	33.0	100		08/21/23 12:01	127-18-4	
Toluene	ND	ug/L	100	25.3	100		08/21/23 12:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	100	92.7	100		08/21/23 12:01	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	100	73.2	100		08/21/23 12:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	100	10.9	100		08/21/23 12:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	100	14.2	100		08/21/23 12:01	79-00-5	
Trichloroethene	**8900**	ug/L	100	21.0	100		08/21/23 12:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	100	16.4	100		08/21/23 12:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	250	40.8	100		08/21/23 12:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	100	32.4	100		08/21/23 12:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	100	9.0	100		08/21/23 12:01	108-67-8	
Vinyl chloride	**248**	ug/L	100	16.7	100		08/21/23 12:01	75-01-4	
Xylene (Total)	ND	ug/L	300	28.2	100		08/21/23 12:01	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	80-120		100		08/21/23 12:01	460-00-4	
1,2-Dichlorobenzene-d4 (S)	105	%	80-120		100		08/21/23 12:01	2199-69-1	
Toluene-d8 (S)	101	%	80-120		100		08/21/23 12:01	2037-26-5	
Preservation pH	**1.0**		0.10		100		08/21/23 12:01		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-10A **Lab ID: 60435728015** Collected: 08/17/23 14:18 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	ND	ug/L	1000	254	100		08/21/23 17:59	67-64-1	
Benzene	ND	ug/L	100	13.6	100		08/21/23 17:59	71-43-2	
Bromobenzene	ND	ug/L	100	8.8	100		08/21/23 17:59	108-86-1	
Bromochloromethane	ND	ug/L	100	20.2	100		08/21/23 17:59	74-97-5	
Bromodichloromethane	ND	ug/L	100	15.5	100		08/21/23 17:59	75-27-4	
Bromoform	ND	ug/L	100	67.6	100		08/21/23 17:59	75-25-2	
Bromomethane	ND	ug/L	500	46.0	100		08/21/23 17:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	1000	97.5	100		08/21/23 17:59	78-93-3	
n-Butylbenzene	ND	ug/L	100	15.3	100		08/21/23 17:59	104-51-8	
sec-Butylbenzene	ND	ug/L	100	11.0	100		08/21/23 17:59	135-98-8	
tert-Butylbenzene	ND	ug/L	100	12.0	100		08/21/23 17:59	98-06-6	
Carbon disulfide	ND	ug/L	500	97.8	100		08/21/23 17:59	75-15-0	
Carbon tetrachloride	ND	ug/L	100	17.2	100		08/21/23 17:59	56-23-5	
Chlorobenzene	ND	ug/L	100	8.9	100		08/21/23 17:59	108-90-7	
Chloroethane	ND	ug/L	100	37.4	100		08/21/23 17:59	75-00-3	
Chloroform	ND	ug/L	100	22.0	100		08/21/23 17:59	67-66-3	
Chloromethane	ND	ug/L	100	28.3	100		08/21/23 17:59	74-87-3	
2-Chlorotoluene	ND	ug/L	100	10.8	100		08/21/23 17:59	95-49-8	
4-Chlorotoluene	ND	ug/L	100	14.9	100		08/21/23 17:59	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	250	78.0	100		08/21/23 17:59	96-12-8	
Dibromochloromethane	ND	ug/L	100	30.5	100		08/21/23 17:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	100	19.6	100		08/21/23 17:59	106-93-4	
Dibromomethane	ND	ug/L	100	10.9	100		08/21/23 17:59	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	100	12.5	100		08/21/23 17:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	100	13.2	100		08/21/23 17:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	100	13.3	100		08/21/23 17:59	106-46-7	
Dichlorodifluoromethane	ND	ug/L	100	19.9	100		08/21/23 17:59	75-71-8	
1,1-Dichloroethane	ND	ug/L	100	12.2	100		08/21/23 17:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	100	21.2	100		08/21/23 17:59	107-06-2	
1,2-Dichloroethene (Total)	**2700**	ug/L	100	22.2	100		08/21/23 17:59	540-59-0	
1,1-Dichloroethene	ND	ug/L	100	21.9	100		08/21/23 17:59	75-35-4	
cis-1,2-Dichloroethene	**2670**	ug/L	100	12.9	100		08/21/23 17:59	156-59-2	
trans-1,2-Dichloroethene	**27.6J**	ug/L	100	10.2	100		08/21/23 17:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	100	13.9	100		08/21/23 17:59	78-87-5	
1,3-Dichloropropane	ND	ug/L	100	10.4	100		08/21/23 17:59	142-28-9	
2,2-Dichloropropane	ND	ug/L	100	16.2	100		08/21/23 17:59	594-20-7	
1,1-Dichloropropene	ND	ug/L	100	13.5	100		08/21/23 17:59	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	100	7.8	100		08/21/23 17:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	100	18.2	100		08/21/23 17:59	10061-02-6	
Ethylbenzene	ND	ug/L	100	12.0	100		08/21/23 17:59	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	100	41.7	100		08/21/23 17:59	87-68-3	
2-Hexanone	ND	ug/L	1000	110	100		08/21/23 17:59	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	100	9.7	100		08/21/23 17:59	98-82-8	
p-Isopropyltoluene	ND	ug/L	100	12.7	100		08/21/23 17:59	99-87-6	
Methylene Chloride	ND	ug/L	100	39.1	100		08/21/23 17:59	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-10A **Lab ID: 60435728015** Collected: 08/17/23 14:18 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	1000	73.6	100		08/21/23 17:59	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	100	12.8	100		08/21/23 17:59	1634-04-4	
Naphthalene	ND	ug/L	1000	82.2	100		08/21/23 17:59	91-20-3	
n-Propylbenzene	ND	ug/L	100	11.9	100		08/21/23 17:59	103-65-1	
Styrene	ND	ug/L	100	12.3	100		08/21/23 17:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	100	8.4	100		08/21/23 17:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	100	15.4	100		08/21/23 17:59	79-34-5	
Tetrachloroethene	ND	ug/L	100	33.0	100		08/21/23 17:59	127-18-4	
Toluene	ND	ug/L	100	25.3	100		08/21/23 17:59	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	100	92.7	100		08/21/23 17:59	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	100	73.2	100		08/21/23 17:59	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	100	10.9	100		08/21/23 17:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	100	14.2	100		08/21/23 17:59	79-00-5	
Trichloroethene	**6700**	ug/L	100	21.0	100		08/21/23 17:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	100	16.4	100		08/21/23 17:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	250	40.8	100		08/21/23 17:59	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	100	32.4	100		08/21/23 17:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	100	9.0	100		08/21/23 17:59	108-67-8	
Vinyl chloride	**136**	ug/L	100	16.7	100		08/21/23 17:59	75-01-4	
Xylene (Total)	ND	ug/L	300	28.2	100		08/21/23 17:59	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	80-120		100		08/21/23 17:59	460-00-4	
1,2-Dichlorobenzene-d4 (S)	104	%	80-120		100		08/21/23 17:59	2199-69-1	
Toluene-d8 (S)	100	%	80-120		100		08/21/23 17:59	2037-26-5	
Preservation pH	**1.0**		0.10		100		08/21/23 17:59		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-10B **Lab ID: 60435728016** Collected: 08/17/23 14:30 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	ND	ug/L	500	127	50		08/21/23 17:45	67-64-1	
Benzene	ND	ug/L	50.0	6.8	50		08/21/23 17:45	71-43-2	
Bromobenzene	ND	ug/L	50.0	4.4	50		08/21/23 17:45	108-86-1	
Bromochloromethane	ND	ug/L	50.0	10.1	50		08/21/23 17:45	74-97-5	
Bromodichloromethane	ND	ug/L	50.0	7.8	50		08/21/23 17:45	75-27-4	
Bromoform	ND	ug/L	50.0	33.8	50		08/21/23 17:45	75-25-2	
Bromomethane	ND	ug/L	250	23.0	50		08/21/23 17:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	500	48.8	50		08/21/23 17:45	78-93-3	
n-Butylbenzene	ND	ug/L	50.0	7.6	50		08/21/23 17:45	104-51-8	
sec-Butylbenzene	ND	ug/L	50.0	5.5	50		08/21/23 17:45	135-98-8	
tert-Butylbenzene	ND	ug/L	50.0	6.0	50		08/21/23 17:45	98-06-6	
Carbon disulfide	ND	ug/L	250	48.9	50		08/21/23 17:45	75-15-0	
Carbon tetrachloride	ND	ug/L	50.0	8.6	50		08/21/23 17:45	56-23-5	
Chlorobenzene	ND	ug/L	50.0	4.4	50		08/21/23 17:45	108-90-7	
Chloroethane	ND	ug/L	50.0	18.7	50		08/21/23 17:45	75-00-3	
Chloroform	ND	ug/L	50.0	11.0	50		08/21/23 17:45	67-66-3	
Chloromethane	ND	ug/L	50.0	14.2	50		08/21/23 17:45	74-87-3	
2-Chlorotoluene	ND	ug/L	50.0	5.4	50		08/21/23 17:45	95-49-8	
4-Chlorotoluene	ND	ug/L	50.0	7.4	50		08/21/23 17:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	125	39.0	50		08/21/23 17:45	96-12-8	
Dibromochloromethane	ND	ug/L	50.0	15.2	50		08/21/23 17:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	50.0	9.8	50		08/21/23 17:45	106-93-4	
Dibromomethane	ND	ug/L	50.0	5.4	50		08/21/23 17:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	50.0	6.2	50		08/21/23 17:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	50.0	6.6	50		08/21/23 17:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	50.0	6.6	50		08/21/23 17:45	106-46-7	
Dichlorodifluoromethane	ND	ug/L	50.0	10	50		08/21/23 17:45	75-71-8	
1,1-Dichloroethane	ND	ug/L	50.0	6.1	50		08/21/23 17:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	50.0	10.6	50		08/21/23 17:45	107-06-2	
1,2-Dichloroethene (Total)	**822**	ug/L	50.0	11.1	50		08/21/23 17:45	540-59-0	
1,1-Dichloroethene	ND	ug/L	50.0	11.0	50		08/21/23 17:45	75-35-4	
cis-1,2-Dichloroethene	**816**	ug/L	50.0	6.4	50		08/21/23 17:45	156-59-2	
trans-1,2-Dichloroethene	**6.2J**	ug/L	50.0	5.1	50		08/21/23 17:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	50.0	7.0	50		08/21/23 17:45	78-87-5	
1,3-Dichloropropane	ND	ug/L	50.0	5.2	50		08/21/23 17:45	142-28-9	
2,2-Dichloropropane	ND	ug/L	50.0	8.1	50		08/21/23 17:45	594-20-7	
1,1-Dichloropropene	ND	ug/L	50.0	6.8	50		08/21/23 17:45	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	50.0	3.9	50		08/21/23 17:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	50.0	9.1	50		08/21/23 17:45	10061-02-6	
Ethylbenzene	ND	ug/L	50.0	6.0	50		08/21/23 17:45	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	50.0	20.8	50		08/21/23 17:45	87-68-3	
2-Hexanone	ND	ug/L	500	55.0	50		08/21/23 17:45	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	50.0	4.8	50		08/21/23 17:45	98-82-8	
p-Isopropyltoluene	ND	ug/L	50.0	6.4	50		08/21/23 17:45	99-87-6	
Methylene Chloride	ND	ug/L	50.0	19.6	50		08/21/23 17:45	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-10B **Lab ID: 60435728016** Collected: 08/17/23 14:30 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	500	36.8	50		08/21/23 17:45	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	50.0	6.4	50		08/21/23 17:45	1634-04-4	
Naphthalene	ND	ug/L	500	41.1	50		08/21/23 17:45	91-20-3	
n-Propylbenzene	ND	ug/L	50.0	6.0	50		08/21/23 17:45	103-65-1	
Styrene	ND	ug/L	50.0	6.2	50		08/21/23 17:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	50.0	4.2	50		08/21/23 17:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	50.0	7.7	50		08/21/23 17:45	79-34-5	
Tetrachloroethene	ND	ug/L	50.0	16.5	50		08/21/23 17:45	127-18-4	
Toluene	ND	ug/L	50.0	12.6	50		08/21/23 17:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	50.0	46.4	50		08/21/23 17:45	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	50.0	36.6	50		08/21/23 17:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	50.0	5.4	50		08/21/23 17:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	50.0	7.1	50		08/21/23 17:45	79-00-5	
Trichloroethene	**3680**	ug/L	50.0	10.5	50		08/21/23 17:45	79-01-6	
Trichlorofluoromethane	ND	ug/L	50.0	8.2	50		08/21/23 17:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	125	20.4	50		08/21/23 17:45	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	50.0	16.2	50		08/21/23 17:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	50.0	4.5	50		08/21/23 17:45	108-67-8	
Vinyl chloride	**18.0J**	ug/L	50.0	8.4	50		08/21/23 17:45	75-01-4	
Xylene (Total)	ND	ug/L	150	14.1	50		08/21/23 17:45	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	80-120		50		08/21/23 17:45	460-00-4	
1,2-Dichlorobenzene-d4 (S)	103	%	80-120		50		08/21/23 17:45	2199-69-1	
Toluene-d8 (S)	99	%	80-120		50		08/21/23 17:45	2037-26-5	
Preservation pH	**1.0**		0.10		50		08/21/23 17:45		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
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(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-Y **Lab ID: 60435728017** Collected: 08/17/23 14:30 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**64.8**	ug/L	10.0	2.5	1		08/21/23 17:04	67-64-1	
Benzene	**1.7**	ug/L	1.0	0.14	1		08/21/23 17:04	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 17:04	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 17:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 17:04	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 17:04	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 17:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 17:04	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 17:04	104-51-8	
sec-Butylbenzene	**0.11J**	ug/L	1.0	0.11	1		08/21/23 17:04	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 17:04	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 17:04	75-15-0	
Carbon tetrachloride	**0.99J**	ug/L	1.0	0.17	1		08/21/23 17:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 17:04	108-90-7	
Chloroethane	**0.61J**	ug/L	1.0	0.37	1		08/21/23 17:04	75-00-3	
Chloroform	**2.9**	ug/L	1.0	0.22	1		08/21/23 17:04	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/21/23 17:04	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 17:04	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 17:04	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 17:04	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 17:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 17:04	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 17:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 17:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 17:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 17:04	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 17:04	75-71-8	
1,1-Dichloroethane	**0.90J**	ug/L	1.0	0.12	1		08/21/23 17:04	75-34-3	
1,2-Dichloroethane	**0.45J**	ug/L	1.0	0.21	1		08/21/23 17:04	107-06-2	
1,2-Dichloroethene (Total)	**784**	ug/L	25.0	5.6	25		08/23/23 13:24	540-59-0	
1,1-Dichloroethene	**4.6**	ug/L	1.0	0.22	1		08/21/23 17:04	75-35-4	
cis-1,2-Dichloroethene	**779**	ug/L	25.0	3.2	25		08/23/23 13:24	156-59-2	
trans-1,2-Dichloroethene	**4.3J**	ug/L	25.0	2.6	25		08/23/23 13:24	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 17:04	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 17:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 17:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 17:04	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 17:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 17:04	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 17:04	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 17:04	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 17:04	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 17:04	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 17:04	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 17:04	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-Y **Lab ID: 60435728017** Collected: 08/17/23 14:30 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260								
	Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 17:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 17:04	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 17:04	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 17:04	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 17:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 17:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 17:04	79-34-5	
Tetrachloroethene	**1.5**	ug/L	1.0	0.33	1		08/21/23 17:04	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 17:04	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 17:04	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 17:04	120-82-1	
1,1,1-Trichloroethane	**2.2**	ug/L	1.0	0.11	1		08/21/23 17:04	71-55-6	
1,1,2-Trichloroethane	**0.46J**	ug/L	1.0	0.14	1		08/21/23 17:04	79-00-5	
Trichloroethene	**3480**	ug/L	25.0	5.2	25		08/23/23 13:24	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 17:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 17:04	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 17:04	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 17:04	108-67-8	
Vinyl chloride	**21.0**	ug/L	1.0	0.17	1		08/21/23 17:04	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 17:04	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	80-120		1		08/21/23 17:04	460-00-4	
1,2-Dichlorobenzene-d4 (S)	104	%	80-120		1		08/21/23 17:04	2199-69-1	
Toluene-d8 (S)	97	%	80-120		1		08/21/23 17:04	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 17:04		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-1B **Lab ID: 60435728018** Collected: 08/17/23 14:52 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**59.9**	ug/L	10.0	2.5	1		08/23/23 12:56	67-64-1	
Benzene	**0.25J**	ug/L	1.0	0.14	1		08/23/23 12:56	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/23/23 12:56	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/23/23 12:56	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/23/23 12:56	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/23/23 12:56	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/23/23 12:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/23/23 12:56	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/23/23 12:56	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/23/23 12:56	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:56	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/23/23 12:56	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/23/23 12:56	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/23/23 12:56	108-90-7	
Chloroethane	**1.6**	ug/L	1.0	0.37	1		08/23/23 12:56	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/23/23 12:56	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/23/23 12:56	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/23/23 12:56	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/23/23 12:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/23/23 12:56	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/23/23 12:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/23/23 12:56	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/23/23 12:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/23/23 12:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/23/23 12:56	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/23/23 12:56	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/23/23 12:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/23/23 12:56	107-06-2	
1,2-Dichloroethene (Total)	**94.0**	ug/L	1.0	0.22	1		08/23/23 12:56	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/23/23 12:56	75-35-4	
cis-1,2-Dichloroethene	**92.7**	ug/L	1.0	0.13	1		08/23/23 12:56	156-59-2	
trans-1,2-Dichloroethene	**1.3**	ug/L	1.0	0.10	1		08/23/23 12:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/23/23 12:56	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/23/23 12:56	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/23/23 12:56	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/23/23 12:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/23/23 12:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/23/23 12:56	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:56	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/23/23 12:56	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/23/23 12:56	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/23/23 12:56	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/23/23 12:56	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/23/23 12:56	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-1B **Lab ID: 60435728018** Collected: 08/17/23 14:52 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/23/23 12:56	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/23/23 12:56	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/23/23 12:56	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/23/23 12:56	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/23/23 12:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/23/23 12:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/23/23 12:56	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/23/23 12:56	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/23/23 12:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/23/23 12:56	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/23/23 12:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/23/23 12:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/23/23 12:56	79-00-5	
Trichloroethene	**0.91J**	ug/L	1.0	0.21	1		08/23/23 12:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/23/23 12:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/23/23 12:56	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/23/23 12:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/23/23 12:56	108-67-8	
Vinyl chloride	**7.2**	ug/L	1.0	0.17	1		08/23/23 12:56	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/23/23 12:56	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	80-120		1		08/23/23 12:56	460-00-4	
1,2-Dichlorobenzene-d4 (S)	100	%	80-120		1		08/23/23 12:56	2199-69-1	
Toluene-d8 (S)	99	%	80-120		1		08/23/23 12:56	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/23/23 12:56		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-3B **Lab ID: 60435728019** Collected: 08/17/23 15:05 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	**40.8J**	ug/L	50.0	12.7	5		08/28/23 10:59	67-64-1	
Benzene	ND	ug/L	5.0	0.68	5		08/28/23 10:59	71-43-2	
Bromobenzene	ND	ug/L	5.0	0.44	5		08/28/23 10:59	108-86-1	
Bromochloromethane	ND	ug/L	5.0	1.0	5		08/28/23 10:59	74-97-5	
Bromodichloromethane	ND	ug/L	5.0	0.78	5		08/28/23 10:59	75-27-4	
Bromoform	ND	ug/L	5.0	3.4	5		08/28/23 10:59	75-25-2	
Bromomethane	ND	ug/L	25.0	2.3	5		08/28/23 10:59	74-83-9	
2-Butanone (MEK)	ND	ug/L	50.0	4.9	5		08/28/23 10:59	78-93-3	
n-Butylbenzene	ND	ug/L	5.0	0.76	5		08/28/23 10:59	104-51-8	
sec-Butylbenzene	ND	ug/L	5.0	0.55	5		08/28/23 10:59	135-98-8	
tert-Butylbenzene	ND	ug/L	5.0	0.60	5		08/28/23 10:59	98-06-6	
Carbon disulfide	ND	ug/L	25.0	4.9	5		08/28/23 10:59	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	0.86	5		08/28/23 10:59	56-23-5	
Chlorobenzene	ND	ug/L	5.0	0.44	5		08/28/23 10:59	108-90-7	
Chloroethane	ND	ug/L	5.0	1.9	5		08/28/23 10:59	75-00-3	
Chloroform	**7.6**	ug/L	5.0	1.1	5		08/28/23 10:59	67-66-3	
Chloromethane	ND	ug/L	5.0	1.4	5		08/28/23 10:59	74-87-3	
2-Chlorotoluene	ND	ug/L	5.0	0.54	5		08/28/23 10:59	95-49-8	
4-Chlorotoluene	ND	ug/L	5.0	0.74	5		08/28/23 10:59	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	12.5	3.9	5		08/28/23 10:59	96-12-8	
Dibromochloromethane	ND	ug/L	5.0	1.5	5		08/28/23 10:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	5.0	0.98	5		08/28/23 10:59	106-93-4	
Dibromomethane	ND	ug/L	5.0	0.54	5		08/28/23 10:59	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.62	5		08/28/23 10:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	0.66	5		08/28/23 10:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	0.66	5		08/28/23 10:59	106-46-7	
Dichlorodifluoromethane	ND	ug/L	5.0	1.0	5		08/28/23 10:59	75-71-8	
1,1-Dichloroethane	ND	ug/L	5.0	0.61	5		08/28/23 10:59	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1.1	5		08/28/23 10:59	107-06-2	
1,2-Dichloroethene (Total)	**192**	ug/L	5.0	1.1	5		08/28/23 10:59	540-59-0	
1,1-Dichloroethene	ND	ug/L	5.0	1.1	5		08/28/23 10:59	75-35-4	
cis-1,2-Dichloroethene	**189**	ug/L	5.0	0.64	5		08/28/23 10:59	156-59-2	
trans-1,2-Dichloroethene	**2.8J**	ug/L	5.0	0.51	5		08/28/23 10:59	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	0.70	5		08/28/23 10:59	78-87-5	
1,3-Dichloropropane	ND	ug/L	5.0	0.52	5		08/28/23 10:59	142-28-9	
2,2-Dichloropropane	ND	ug/L	5.0	0.81	5		08/28/23 10:59	594-20-7	
1,1-Dichloropropene	ND	ug/L	5.0	0.68	5		08/28/23 10:59	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	5.0	0.39	5		08/28/23 10:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	0.91	5		08/28/23 10:59	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	0.60	5		08/28/23 10:59	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	2.1	5		08/28/23 10:59	87-68-3	
2-Hexanone	ND	ug/L	50.0	5.5	5		08/28/23 10:59	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	5.0	0.48	5		08/28/23 10:59	98-82-8	
p-Isopropyltoluene	ND	ug/L	5.0	0.64	5		08/28/23 10:59	99-87-6	
Methylene Chloride	ND	ug/L	5.0	2.0	5		08/28/23 10:59	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: MW-3B **Lab ID: 60435728019** Collected: 08/17/23 15:05 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	50.0	3.7	5		08/28/23 10:59	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	5.0	0.64	5		08/28/23 10:59	1634-04-4	
Naphthalene	ND	ug/L	50.0	4.1	5		08/28/23 10:59	91-20-3	
n-Propylbenzene	ND	ug/L	5.0	0.60	5		08/28/23 10:59	103-65-1	
Styrene	ND	ug/L	5.0	0.62	5		08/28/23 10:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.42	5		08/28/23 10:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	0.77	5		08/28/23 10:59	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1.6	5		08/28/23 10:59	127-18-4	
Toluene	ND	ug/L	5.0	1.3	5		08/28/23 10:59	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	5.0	4.6	5		08/28/23 10:59	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	3.7	5		08/28/23 10:59	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	5.0	0.54	5		08/28/23 10:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	0.71	5		08/28/23 10:59	79-00-5	
Trichloroethene	**65.0**	ug/L	5.0	1.0	5		08/28/23 10:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	0.82	5		08/28/23 10:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	12.5	2.0	5		08/28/23 10:59	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1.6	5		08/28/23 10:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	5.0	0.45	5		08/28/23 10:59	108-67-8	
Vinyl chloride	**8.2**	ug/L	5.0	0.84	5		08/28/23 10:59	75-01-4	
Xylene (Total)	ND	ug/L	15.0	1.4	5		08/28/23 10:59	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	96	%	80-120		5		08/28/23 10:59	460-00-4	
1,2-Dichlorobenzene-d4 (S)	101	%	80-120		5		08/28/23 10:59	2199-69-1	
Toluene-d8 (S)	97	%	80-120		5		08/28/23 10:59	2037-26-5	
Preservation pH	**1.0**		0.10		5		08/28/23 10:59		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: FIELD BLANK **Lab ID: 60435728020** Collected: 08/17/23 15:10 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	ND	ug/L	10.0	2.5	1		08/21/23 14:32	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 14:32	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 14:32	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 14:32	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 14:32	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 14:32	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 14:32	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 14:32	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 14:32	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 14:32	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 14:32	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 14:32	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 14:32	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 14:32	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 14:32	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 14:32	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/21/23 14:32	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 14:32	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 14:32	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 14:32	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 14:32	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 14:32	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 14:32	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 14:32	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 14:32	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 14:32	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 14:32	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 14:32	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 14:32	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	1.0	0.22	1		08/21/23 14:32	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 14:32	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.13	1		08/21/23 14:32	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.10	1		08/21/23 14:32	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 14:32	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 14:32	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 14:32	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 14:32	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 14:32	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 14:32	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 14:32	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 14:32	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 14:32	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 14:32	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 14:32	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 14:32	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: FIELD BLANK **Lab ID: 60435728020** Collected: 08/17/23 15:10 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 14:32	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 14:32	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 14:32	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 14:32	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 14:32	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 14:32	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 14:32	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 14:32	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 14:32	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 14:32	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 14:32	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 14:32	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 14:32	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.21	1		08/21/23 14:32	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 14:32	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 14:32	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 14:32	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 14:32	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.17	1		08/21/23 14:32	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 14:32	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	80-120		1		08/21/23 14:32	460-00-4	
1,2-Dichlorobenzene-d4 (S)	103	%	80-120		1		08/21/23 14:32	2199-69-1	
Toluene-d8 (S)	97	%	80-120		1		08/21/23 14:32	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 14:32		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: TRIP BLANK **Lab ID: 60435728021** Collected: 08/17/23 15:15 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
Acetone	ND	ug/L	10.0	2.5	1		08/21/23 14:46	67-64-1	
Benzene	ND	ug/L	1.0	0.14	1		08/21/23 14:46	71-43-2	
Bromobenzene	ND	ug/L	1.0	0.088	1		08/21/23 14:46	108-86-1	
Bromochloromethane	ND	ug/L	1.0	0.20	1		08/21/23 14:46	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.16	1		08/21/23 14:46	75-27-4	
Bromoform	ND	ug/L	1.0	0.68	1		08/21/23 14:46	75-25-2	
Bromomethane	ND	ug/L	5.0	0.46	1		08/21/23 14:46	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	0.98	1		08/21/23 14:46	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	0.15	1		08/21/23 14:46	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	0.11	1		08/21/23 14:46	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 14:46	98-06-6	
Carbon disulfide	ND	ug/L	5.0	0.98	1		08/21/23 14:46	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.17	1		08/21/23 14:46	56-23-5	
Chlorobenzene	ND	ug/L	1.0	0.089	1		08/21/23 14:46	108-90-7	
Chloroethane	ND	ug/L	1.0	0.37	1		08/21/23 14:46	75-00-3	
Chloroform	ND	ug/L	1.0	0.22	1		08/21/23 14:46	67-66-3	
Chloromethane	ND	ug/L	1.0	0.28	1		08/21/23 14:46	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	0.11	1		08/21/23 14:46	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	0.15	1		08/21/23 14:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	2.5	0.78	1		08/21/23 14:46	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	0.30	1		08/21/23 14:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.20	1		08/21/23 14:46	106-93-4	
Dibromomethane	ND	ug/L	1.0	0.11	1		08/21/23 14:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	0.12	1		08/21/23 14:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 14:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.13	1		08/21/23 14:46	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	0.20	1		08/21/23 14:46	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	0.12	1		08/21/23 14:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.21	1		08/21/23 14:46	107-06-2	
1,2-Dichloroethene (Total)	ND	ug/L	1.0	0.22	1		08/21/23 14:46	540-59-0	
1,1-Dichloroethene	ND	ug/L	1.0	0.22	1		08/21/23 14:46	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	0.13	1		08/21/23 14:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	0.10	1		08/21/23 14:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.14	1		08/21/23 14:46	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	0.10	1		08/21/23 14:46	142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	0.16	1		08/21/23 14:46	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	0.14	1		08/21/23 14:46	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.078	1		08/21/23 14:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.18	1		08/21/23 14:46	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 14:46	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	0.42	1		08/21/23 14:46	87-68-3	
2-Hexanone	ND	ug/L	10.0	1.1	1		08/21/23 14:46	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	0.097	1		08/21/23 14:46	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	0.13	1		08/21/23 14:46	99-87-6	
Methylene Chloride	ND	ug/L	1.0	0.39	1		08/21/23 14:46	75-09-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

ANALYTICAL RESULTS

Project: CLINTON ENGINES
Pace Project No.: 60435728

Sample: TRIP BLANK **Lab ID: 60435728021** Collected: 08/17/23 15:15 Received: 08/18/23 15:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City								
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	0.74	1		08/21/23 14:46	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	0.13	1		08/21/23 14:46	1634-04-4	
Naphthalene	ND	ug/L	10.0	0.82	1		08/21/23 14:46	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	0.12	1		08/21/23 14:46	103-65-1	
Styrene	ND	ug/L	1.0	0.12	1		08/21/23 14:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	0.084	1		08/21/23 14:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	0.15	1		08/21/23 14:46	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.33	1		08/21/23 14:46	127-18-4	
Toluene	ND	ug/L	1.0	0.25	1		08/21/23 14:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	0.93	1		08/21/23 14:46	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	0.73	1		08/21/23 14:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.11	1		08/21/23 14:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.14	1		08/21/23 14:46	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.21	1		08/21/23 14:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.16	1		08/21/23 14:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	2.5	0.41	1		08/21/23 14:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	0.32	1		08/21/23 14:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	0.090	1		08/21/23 14:46	108-67-8	
Vinyl chloride	ND	ug/L	1.0	0.17	1		08/21/23 14:46	75-01-4	
Xylene (Total)	ND	ug/L	3.0	0.28	1		08/21/23 14:46	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	80-120		1		08/21/23 14:46	460-00-4	
1,2-Dichlorobenzene-d4 (S)	105	%	80-120		1		08/21/23 14:46	2199-69-1	
Toluene-d8 (S)	98	%	80-120		1		08/21/23 14:46	2037-26-5	
Preservation pH	**1.0**		0.10		1		08/21/23 14:46		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

QC Batch: 861271
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60435728001, 60435728002, 60435728003, 60435728004, 60435728005, 60435728006, 60435728007, 60435728009, 60435728010, 60435728011, 60435728012, 60435728014

METHOD BLANK: 3410664
Matrix: Water
Associated Lab Samples: 60435728001, 60435728002, 60435728003, 60435728004, 60435728005, 60435728006, 60435728007, 60435728009, 60435728010, 60435728011, 60435728012, 60435728014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.084	08/21/23 08:49	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	08/21/23 08:49	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	08/21/23 08:49	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.14	08/21/23 08:49	
1,1-Dichloroethane	ug/L	ND	1.0	0.12	08/21/23 08:49	
1,1-Dichloroethene	ug/L	ND	1.0	0.22	08/21/23 08:49	
1,1-Dichloropropene	ug/L	ND	1.0	0.14	08/21/23 08:49	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.93	08/21/23 08:49	
1,2,3-Trichloropropane	ug/L	ND	2.5	0.41	08/21/23 08:49	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.73	08/21/23 08:49	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.32	08/21/23 08:49	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.5	0.78	08/21/23 08:49	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.20	08/21/23 08:49	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.12	08/21/23 08:49	
1,2-Dichloroethane	ug/L	ND	1.0	0.21	08/21/23 08:49	
1,2-Dichloroethene (Total)	ug/L	ND	1.0	0.22	08/21/23 08:49	
1,2-Dichloropropane	ug/L	ND	1.0	0.14	08/21/23 08:49	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.090	08/21/23 08:49	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.13	08/21/23 08:49	
1,3-Dichloropropane	ug/L	ND	1.0	0.10	08/21/23 08:49	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.13	08/21/23 08:49	
2,2-Dichloropropane	ug/L	ND	1.0	0.16	08/21/23 08:49	
2-Butanone (MEK)	ug/L	ND	10.0	0.98	08/21/23 08:49	
2-Chlorotoluene	ug/L	ND	1.0	0.11	08/21/23 08:49	
2-Hexanone	ug/L	ND	10.0	1.1	08/21/23 08:49	
4-Chlorotoluene	ug/L	ND	1.0	0.15	08/21/23 08:49	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.74	08/21/23 08:49	
Acetone	ug/L	ND	10.0	2.5	08/21/23 08:49	
Benzene	ug/L	ND	1.0	0.14	08/21/23 08:49	
Bromobenzene	ug/L	ND	1.0	0.088	08/21/23 08:49	
Bromochloromethane	ug/L	ND	1.0	0.20	08/21/23 08:49	
Bromodichloromethane	ug/L	ND	1.0	0.16	08/21/23 08:49	
Bromoform	ug/L	ND	1.0	0.68	08/21/23 08:49	
Bromomethane	ug/L	ND	5.0	0.46	08/21/23 08:49	
Carbon disulfide	ug/L	ND	5.0	0.98	08/21/23 08:49	
Carbon tetrachloride	ug/L	ND	1.0	0.17	08/21/23 08:49	
Chlorobenzene	ug/L	ND	1.0	0.089	08/21/23 08:49	
Chloroethane	ug/L	ND	1.0	0.37	08/21/23 08:49	
Chloroform	ug/L	ND	1.0	0.22	08/21/23 08:49	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

METHOD BLANK: 3410664 Matrix: Water

Associated Lab Samples: 60435728001, 60435728002, 60435728003, 60435728004, 60435728005, 60435728006, 60435728007, 60435728009, 60435728010, 60435728011, 60435728012, 60435728014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloromethane	ug/L	ND	1.0	0.28	08/21/23 08:49	
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.13	08/21/23 08:49	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.078	08/21/23 08:49	
Dibromochloromethane	ug/L	ND	1.0	0.30	08/21/23 08:49	
Dibromomethane	ug/L	ND	1.0	0.11	08/21/23 08:49	
Dichlorodifluoromethane	ug/L	ND	1.0	0.20	08/21/23 08:49	
Ethylbenzene	ug/L	ND	1.0	0.12	08/21/23 08:49	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.42	08/21/23 08:49	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.097	08/21/23 08:49	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.13	08/21/23 08:49	
Methylene Chloride	ug/L	ND	1.0	0.39	08/21/23 08:49	
n-Butylbenzene	ug/L	ND	1.0	0.15	08/21/23 08:49	
n-Propylbenzene	ug/L	ND	1.0	0.12	08/21/23 08:49	
Naphthalene	ug/L	ND	10.0	0.82	08/21/23 08:49	
p-Isopropyltoluene	ug/L	ND	1.0	0.13	08/21/23 08:49	
sec-Butylbenzene	ug/L	ND	1.0	0.11	08/21/23 08:49	
Styrene	ug/L	ND	1.0	0.12	08/21/23 08:49	
tert-Butylbenzene	ug/L	ND	1.0	0.12	08/21/23 08:49	
Tetrachloroethene	ug/L	ND	1.0	0.33	08/21/23 08:49	
Toluene	ug/L	ND	1.0	0.25	08/21/23 08:49	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.10	08/21/23 08:49	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.18	08/21/23 08:49	
Trichloroethene	ug/L	ND	1.0	0.21	08/21/23 08:49	
Trichlorofluoromethane	ug/L	ND	1.0	0.16	08/21/23 08:49	
Vinyl chloride	ug/L	ND	1.0	0.17	08/21/23 08:49	
Xylene (Total)	ug/L	ND	3.0	0.28	08/21/23 08:49	
1,2-Dichlorobenzene-d4 (S)	%	101	80-120		08/21/23 08:49	
4-Bromofluorobenzene (S)	%	102	80-120		08/21/23 08:49	
Toluene-d8 (S)	%	98	80-120		08/21/23 08:49	

LABORATORY CONTROL SAMPLE: 3410665

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	19.9	100	80-120	
1,1,1-Trichloroethane	ug/L	20	19.4	97	75-125	
1,1,2,2-Tetrachloroethane	ug/L	20	22.0	110	70-130	
1,1,2-Trichloroethane	ug/L	20	19.0	95	75-125	
1,1-Dichloroethane	ug/L	20	20.0	100	75-120	
1,1-Dichloroethene	ug/L	20	20.3	101	75-120	
1,1-Dichloropropene	ug/L	20	19.9	100	75-125	
1,2,3-Trichlorobenzene	ug/L	20	20.2	101	70-125	
1,2,3-Trichloropropane	ug/L	20	21.0	105	75-125	
1,2,4-Trichlorobenzene	ug/L	20	20.2	101	75-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

LABORATORY CONTROL SAMPLE: 3410665

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	19.4	97	75-120	
1,2-Dibromo-3-chloropropane	ug/L	20	19.3	97	65-125	
1,2-Dibromoethane (EDB)	ug/L	20	19.1	95	80-120	
1,2-Dichlorobenzene	ug/L	20	19.5	97	80-120	
1,2-Dichloroethane	ug/L	20	18.5	92	80-120	
1,2-Dichloroethene (Total)	ug/L	40	38.5	96	80-120	
1,2-Dichloropropane	ug/L	20	19.4	97	80-120	
1,3,5-Trimethylbenzene	ug/L	20	19.3	96	75-120	
1,3-Dichlorobenzene	ug/L	20	19.1	96	80-120	
1,3-Dichloropropane	ug/L	20	19.1	96	80-120	
1,4-Dichlorobenzene	ug/L	20	19.9	100	80-120	
2,2-Dichloropropane	ug/L	20	20.1	100	60-130	
2-Butanone (MEK)	ug/L	100	119	119	60-140	
2-Chlorotoluene	ug/L	20	19.8	99	80-120	
2-Hexanone	ug/L	100	117	117	55-155	
4-Chlorotoluene	ug/L	20	18.9	95	80-120	
4-Methyl-2-pentanone (MIBK)	ug/L	100	105	105	70-135	
Acetone	ug/L	100	125	125	25-185	
Benzene	ug/L	20	20.2	101	80-120	
Bromobenzene	ug/L	20	19.3	96	80-120	
Bromochloromethane	ug/L	20	19.2	96	80-120	
Bromodichloromethane	ug/L	20	19.1	95	80-120	
Bromoform	ug/L	20	18.3	91	70-135	
Bromomethane	ug/L	20	19.8	99	50-145	
Carbon disulfide	ug/L	20	20.1	100	70-130	
Carbon tetrachloride	ug/L	20	19.2	96	80-130	
Chlorobenzene	ug/L	20	19.6	98	80-120	
Chloroethane	ug/L	20	19.9	100	60-135	
Chloroform	ug/L	20	19.7	98	75-125	
Chloromethane	ug/L	20	17.4	87	60-130	
cis-1,2-Dichloroethene	ug/L	20	19.2	96	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.4	102	75-125	
Dibromochloromethane	ug/L	20	19.2	96	80-120	
Dibromomethane	ug/L	20	18.9	94	75-125	
Dichlorodifluoromethane	ug/L	20	19.7	99	40-170	
Ethylbenzene	ug/L	20	19.4	97	80-120	
Hexachloro-1,3-butadiene	ug/L	20	18.9	94	70-125	
Isopropylbenzene (Cumene)	ug/L	20	20.2	101	80-130	
Methyl-tert-butyl ether	ug/L	20	19.0	95	75-125	
Methylene Chloride	ug/L	20	19.9	100	70-130	
n-Butylbenzene	ug/L	20	19.4	97	70-120	
n-Propylbenzene	ug/L	20	20.4	102	80-120	
Naphthalene	ug/L	20	21.0	105	60-140	
p-Isopropyltoluene	ug/L	20	19.9	100	80-120	
sec-Butylbenzene	ug/L	20	20.5	102	80-125	
Styrene	ug/L	20	20.1	101	80-155	
tert-Butylbenzene	ug/L	20	20.0	100	75-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

LABORATORY CONTROL SAMPLE: 3410665

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/L	20	20.6	103	80-125	
Toluene	ug/L	20	19.3	96	80-120	
trans-1,2-Dichloroethene	ug/L	20	19.3	97	75-125	
trans-1,3-Dichloropropene	ug/L	20	19.9	99	70-125	
Trichloroethene	ug/L	20	19.3	97	80-125	
Trichlorofluoromethane	ug/L	20	19.1	95	65-140	
Vinyl chloride	ug/L	20	18.5	93	65-130	
Xylene (Total)	ug/L	60	58.1	97	80-120	
1,2-Dichlorobenzene-d4 (S)	%			101	80-120	
4-Bromofluorobenzene (S)	%			105	80-120	
Toluene-d8 (S)	%			100	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
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(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

QC Batch: 861272
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60435728015, 60435728016, 60435728017, 60435728020, 60435728021

METHOD BLANK: 3410668 Matrix: Water
Associated Lab Samples: 60435728015, 60435728016, 60435728017, 60435728020, 60435728021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.084	08/21/23 14:18	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	08/21/23 14:18	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	08/21/23 14:18	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.14	08/21/23 14:18	
1,1-Dichloroethane	ug/L	ND	1.0	0.12	08/21/23 14:18	
1,1-Dichloroethene	ug/L	ND	1.0	0.22	08/21/23 14:18	
1,1-Dichloropropene	ug/L	ND	1.0	0.14	08/21/23 14:18	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.93	08/21/23 14:18	
1,2,3-Trichloropropane	ug/L	ND	2.5	0.41	08/21/23 14:18	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.73	08/21/23 14:18	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.32	08/21/23 14:18	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.5	0.78	08/21/23 14:18	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.20	08/21/23 14:18	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.12	08/21/23 14:18	
1,2-Dichloroethane	ug/L	ND	1.0	0.21	08/21/23 14:18	
1,2-Dichloroethene (Total)	ug/L	ND	1.0	0.22	08/21/23 14:18	
1,2-Dichloropropane	ug/L	ND	1.0	0.14	08/21/23 14:18	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.090	08/21/23 14:18	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.13	08/21/23 14:18	
1,3-Dichloropropane	ug/L	ND	1.0	0.10	08/21/23 14:18	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.13	08/21/23 14:18	
2,2-Dichloropropane	ug/L	ND	1.0	0.16	08/21/23 14:18	
2-Butanone (MEK)	ug/L	ND	10.0	0.98	08/21/23 14:18	
2-Chlorotoluene	ug/L	ND	1.0	0.11	08/21/23 14:18	
2-Hexanone	ug/L	ND	10.0	1.1	08/21/23 14:18	
4-Chlorotoluene	ug/L	ND	1.0	0.15	08/21/23 14:18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.74	08/21/23 14:18	
Acetone	ug/L	ND	10.0	2.5	08/21/23 14:18	
Benzene	ug/L	ND	1.0	0.14	08/21/23 14:18	
Bromobenzene	ug/L	ND	1.0	0.088	08/21/23 14:18	
Bromochloromethane	ug/L	ND	1.0	0.20	08/21/23 14:18	
Bromodichloromethane	ug/L	ND	1.0	0.16	08/21/23 14:18	
Bromoform	ug/L	ND	1.0	0.68	08/21/23 14:18	
Bromomethane	ug/L	ND	5.0	0.46	08/21/23 14:18	
Carbon disulfide	ug/L	ND	5.0	0.98	08/21/23 14:18	
Carbon tetrachloride	ug/L	ND	1.0	0.17	08/21/23 14:18	
Chlorobenzene	ug/L	ND	1.0	0.089	08/21/23 14:18	
Chloroethane	ug/L	ND	1.0	0.37	08/21/23 14:18	
Chloroform	ug/L	ND	1.0	0.22	08/21/23 14:18	
Chloromethane	ug/L	ND	1.0	0.28	08/21/23 14:18	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

METHOD BLANK: 3410668 Matrix: Water
Associated Lab Samples: 60435728015, 60435728016, 60435728017, 60435728020, 60435728021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.13	08/21/23 14:18	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.078	08/21/23 14:18	
Dibromochloromethane	ug/L	ND	1.0	0.30	08/21/23 14:18	
Dibromomethane	ug/L	ND	1.0	0.11	08/21/23 14:18	
Dichlorodifluoromethane	ug/L	ND	1.0	0.20	08/21/23 14:18	
Ethylbenzene	ug/L	ND	1.0	0.12	08/21/23 14:18	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.42	08/21/23 14:18	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.097	08/21/23 14:18	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.13	08/21/23 14:18	
Methylene Chloride	ug/L	ND	1.0	0.39	08/21/23 14:18	
n-Butylbenzene	ug/L	ND	1.0	0.15	08/21/23 14:18	
n-Propylbenzene	ug/L	ND	1.0	0.12	08/21/23 14:18	
Naphthalene	ug/L	ND	10.0	0.82	08/21/23 14:18	
p-Isopropyltoluene	ug/L	ND	1.0	0.13	08/21/23 14:18	
sec-Butylbenzene	ug/L	ND	1.0	0.11	08/21/23 14:18	
Styrene	ug/L	ND	1.0	0.12	08/21/23 14:18	
tert-Butylbenzene	ug/L	ND	1.0	0.12	08/21/23 14:18	
Tetrachloroethene	ug/L	ND	1.0	0.33	08/21/23 14:18	
Toluene	ug/L	ND	1.0	0.25	08/21/23 14:18	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.10	08/21/23 14:18	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.18	08/21/23 14:18	
Trichloroethene	ug/L	ND	1.0	0.21	08/21/23 14:18	
Trichlorofluoromethane	ug/L	ND	1.0	0.16	08/21/23 14:18	
Vinyl chloride	ug/L	ND	1.0	0.17	08/21/23 14:18	
Xylene (Total)	ug/L	ND	3.0	0.28	08/21/23 14:18	
1,2-Dichlorobenzene-d4 (S)	%	101	80-120		08/21/23 14:18	
4-Bromofluorobenzene (S)	%	99	80-120		08/21/23 14:18	
Toluene-d8 (S)	%	100	80-120		08/21/23 14:18	

LABORATORY CONTROL SAMPLE: 3410669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.1	105	80-120	
1,1,1-Trichloroethane	ug/L	20	19.1	96	75-125	
1,1,2,2-Tetrachloroethane	ug/L	20	22.9	114	70-130	
1,1,2-Trichloroethane	ug/L	20	21.4	107	75-125	
1,1-Dichloroethane	ug/L	20	20.0	100	75-120	
1,1-Dichloroethene	ug/L	20	19.6	98	75-120	
1,1-Dichloropropene	ug/L	20	19.7	99	75-125	
1,2,3-Trichlorobenzene	ug/L	20	20.8	104	70-125	
1,2,3-Trichloropropane	ug/L	20	22.6	113	75-125	
1,2,4-Trichlorobenzene	ug/L	20	19.5	97	75-120	
1,2,4-Trimethylbenzene	ug/L	20	19.4	97	75-120	
1,2-Dibromo-3-chloropropane	ug/L	20	20.8	104	65-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

LABORATORY CONTROL SAMPLE: 3410669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	21.8	109	80-120	
1,2-Dichlorobenzene	ug/L	20	20.5	102	80-120	
1,2-Dichloroethane	ug/L	20	20.7	103	80-120	
1,2-Dichloroethene (Total)	ug/L	40	38.5	96	80-120	
1,2-Dichloropropane	ug/L	20	19.8	99	80-120	
1,3,5-Trimethylbenzene	ug/L	20	19.8	99	75-120	
1,3-Dichlorobenzene	ug/L	20	20.1	100	80-120	
1,3-Dichloropropane	ug/L	20	21.8	109	80-120	
1,4-Dichlorobenzene	ug/L	20	20.8	104	80-120	
2,2-Dichloropropane	ug/L	20	16.3	82	60-130	
2-Butanone (MEK)	ug/L	100	136	136	60-140	
2-Chlorotoluene	ug/L	20	19.6	98	80-120	
2-Hexanone	ug/L	100	129	129	55-155	
4-Chlorotoluene	ug/L	20	19.7	98	80-120	
4-Methyl-2-pentanone (MIBK)	ug/L	100	123	123	70-135	
Acetone	ug/L	100	127	127	25-185	
Benzene	ug/L	20	20.3	102	80-120	
Bromobenzene	ug/L	20	20.5	103	80-120	
Bromochloromethane	ug/L	20	21.5	107	80-120	
Bromodichloromethane	ug/L	20	20.4	102	80-120	
Bromoform	ug/L	20	20.3	102	70-135	
Bromomethane	ug/L	20	14.3	72	50-145	
Carbon disulfide	ug/L	20	18.5	93	70-130	
Carbon tetrachloride	ug/L	20	19.3	97	80-130	
Chlorobenzene	ug/L	20	20.6	103	80-120	
Chloroethane	ug/L	20	19.0	95	60-135	
Chloroform	ug/L	20	20.4	102	75-125	
Chloromethane	ug/L	20	15.2	76	60-130	
cis-1,2-Dichloroethene	ug/L	20	20.0	100	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.6	103	75-125	
Dibromochloromethane	ug/L	20	22.4	112	80-120	
Dibromomethane	ug/L	20	21.6	108	75-125	
Dichlorodifluoromethane	ug/L	20	19.3	97	40-170	
Ethylbenzene	ug/L	20	19.6	98	80-120	
Hexachloro-1,3-butadiene	ug/L	20	17.5	88	70-125	
Isopropylbenzene (Cumene)	ug/L	20	20.6	103	80-130	
Methyl-tert-butyl ether	ug/L	20	20.6	103	75-125	
Methylene Chloride	ug/L	20	20.3	101	70-130	
n-Butylbenzene	ug/L	20	18.7	94	70-120	
n-Propylbenzene	ug/L	20	19.3	96	80-120	
Naphthalene	ug/L	20	22.0	110	60-140	
p-Isopropyltoluene	ug/L	20	19.5	97	80-120	
sec-Butylbenzene	ug/L	20	19.3	97	80-125	
Styrene	ug/L	20	21.5	107	80-155	
tert-Butylbenzene	ug/L	20	19.7	99	75-125	
Tetrachloroethene	ug/L	20	21.1	106	80-125	
Toluene	ug/L	20	19.5	98	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

LABORATORY CONTROL SAMPLE: 3410669

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,2-Dichloroethene	ug/L	20	18.5	92	75-125	
trans-1,3-Dichloropropene	ug/L	20	21.5	108	70-125	
Trichloroethene	ug/L	20	20.6	103	80-125	
Trichlorofluoromethane	ug/L	20	18.8	94	65-140	
Vinyl chloride	ug/L	20	16.9	84	65-130	
Xylene (Total)	ug/L	60	60.7	101	80-120	
1,2-Dichlorobenzene-d4 (S)	%			105	80-120	
4-Bromofluorobenzene (S)	%			102	80-120	
Toluene-d8 (S)	%			101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3410670 3410671

Parameter	Units	60435714005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	20.5	20.4	103	102	80-120	1	15	
1,1,1-Trichloroethane	ug/L	ND	20	20	19.7	19.7	98	98	75-125	0	15	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	22.5	22.5	112	112	80-120	0	15	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.7	20.7	104	104	80-120	0	20	
1,1-Dichloroethane	ug/L	ND	20	20	19.9	20.0	99	99	75-120	0	15	
1,1-Dichloroethene	ug/L	ND	20	20	20.1	20.4	100	102	75-120	2	25	
1,1-Dichloropropene	ug/L	ND	20	20	20.5	20.3	102	102	75-125	1	20	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	20.0	21.3	100	106	60-135	6	25	
1,2,3-Trichloropropane	ug/L	ND	20	20	21.0	22.0	105	110	75-120	5	20	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	19.2	20.9	96	105	65-130	9	25	
1,2,4-Trimethylbenzene	ug/L	ND	20	20	18.8	18.9	94	95	80-120	1	20	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	19.8	20.6	99	103	65-130	4	25	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	20.8	20.2	104	101	80-120	3	20	
1,2-Dichlorobenzene	ug/L	ND	20	20	19.5	19.9	98	99	80-120	2	20	
1,2-Dichloroethane	ug/L	ND	20	20	19.7	20.1	99	100	80-120	2	25	
1,2-Dichloroethene (Total)	ug/L	ND	40	40	39.0	38.7	97	96	80-120	1	20	
1,2-Dichloropropane	ug/L	ND	20	20	19.4	19.0	97	95	80-120	2	20	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	19.1	19.4	96	97	75-120	2	20	
1,3-Dichlorobenzene	ug/L	ND	20	20	19.2	19.4	96	97	80-120	1	20	
1,3-Dichloropropane	ug/L	ND	20	20	20.2	20.4	101	102	80-120	1	20	
1,4-Dichlorobenzene	ug/L	ND	20	20	20.3	19.9	101	99	80-120	2	20	
2,2-Dichloropropane	ug/L	ND	20	20	16.6	16.3	83	82	55-135	2	30	
2-Butanone (MEK)	ug/L	ND	100	100	87.7	87.4	88	87	50-155	0	25	
2-Chlorotoluene	ug/L	ND	20	20	19.0	19.1	95	96	80-120	1	20	
2-Hexanone	ug/L	ND	100	100	95.1	92.7	95	93	55-145	3	20	
4-Chlorotoluene	ug/L	ND	20	20	18.6	19.4	93	97	80-120	4	20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	117	119	117	119	70-130	2	20	
Acetone	ug/L	ND	100	100	59.6	59.4	60	59	35-160	0	25	
Benzene	ug/L	ND	20	20	20.8	20.5	104	103	80-120	1	25	
Bromobenzene	ug/L	ND	20	20	19.1	19.6	95	98	80-120	3	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3410670 3410671

Parameter	Units	60435714005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromochloromethane	ug/L	ND	20	20	20.7	21.1	103	105	80-120	2	20	
Bromodichloromethane	ug/L	ND	20	20	19.4	19.4	97	97	80-120	0	15	
Bromoform	ug/L	ND	20	20	19.3	19.8	96	99	60-130	3	20	
Bromomethane	ug/L	ND	20	20	12.5	14.6	62	73	50-140	15	45	
Carbon disulfide	ug/L	ND	20	20	19.2	19.3	96	96	75-125	1	25	
Carbon tetrachloride	ug/L	ND	20	20	20.4	20.3	102	101	70-130	1	20	
Chlorobenzene	ug/L	ND	20	20	19.7	19.8	98	99	80-120	0	20	
Chloroethane	ug/L	ND	20	20	18.7	19.2	93	96	70-130	3	20	
Chloroform	ug/L	ND	20	20	20.1	20.2	101	101	75-120	0	20	
Chloromethane	ug/L	ND	20	20	15.6	15.8	78	79	45-145	1	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.9	19.9	98	99	80-120	0	20	
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.6	19.9	98	99	75-125	2	20	
Dibromochloromethane	ug/L	ND	20	20	20.6	20.0	103	100	75-125	3	20	
Dibromomethane	ug/L	ND	20	20	20.6	20.1	103	100	80-120	3	20	
Dichlorodifluoromethane	ug/L	ND	20	20	20.2	20.7	101	104	25-180	2	25	
Ethylbenzene	ug/L	ND	20	20	19.3	19.3	97	97	80-120	0	25	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	17.1	18.6	86	93	65-125	9	30	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	20.7	20.2	104	101	80-125	2	20	
Methyl-tert-butyl ether	ug/L	ND	20	20	20.3	20.0	102	100	75-125	2	30	
Methylene Chloride	ug/L	ND	20	20	19.4	19.7	97	99	70-140	2	25	
n-Butylbenzene	ug/L	ND	20	20	18.9	19.1	94	95	70-125	1	25	
n-Propylbenzene	ug/L	ND	20	20	19.6	19.7	98	99	80-120	1	20	
Naphthalene	ug/L	ND	20	20	21.4	23.3	107	117	60-140	9	25	
p-Isopropyltoluene	ug/L	ND	20	20	19.7	19.6	98	98	80-120	0	20	
sec-Butylbenzene	ug/L	ND	20	20	19.9	20.0	100	100	80-120	0	20	
Styrene	ug/L	ND	20	20	20.5	20.3	102	102	80-120	1	30	
tert-Butylbenzene	ug/L	ND	20	20	19.7	20.3	98	101	80-120	3	20	
Tetrachloroethene	ug/L	ND	20	20	20.8	20.8	104	104	80-125	0	25	
Toluene	ug/L	ND	20	20	19.3	19.1	96	96	80-120	1	25	
trans-1,2-Dichloroethene	ug/L	ND	20	20	19.1	18.8	95	94	80-120	1	20	
trans-1,3-Dichloropropene	ug/L	ND	20	20	20.0	19.7	100	99	75-125	1	15	
Trichloroethene	ug/L	ND	20	20	19.6	19.8	98	99	80-125	1	20	
Trichlorofluoromethane	ug/L	ND	20	20	19.6	19.4	98	97	75-125	1	20	
Vinyl chloride	ug/L	ND	20	20	18.0	18.1	90	90	65-140	1	25	
Xylene (Total)	ug/L	ND	60	60	58.9	58.5	98	98	80-120	1	30	
1,2-Dichlorobenzene-d4 (S)	%						102	104	80-120			
4-Bromofluorobenzene (S)	%						99	101	80-120			
Toluene-d8 (S)	%						97	98	80-120			
Preservation pH		1.0			1.0	1.0				0		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

QC Batch: 861634
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Laboratory: Pace Analytical Services - Kansas City
Associated Lab Samples: 60435728008, 60435728009, 60435728013, 60435728017, 60435728018

METHOD BLANK: 3411878 Matrix: Water
Associated Lab Samples: 60435728008, 60435728009, 60435728013, 60435728017, 60435728018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.084	08/23/23 08:50	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	08/23/23 08:50	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	08/23/23 08:50	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.14	08/23/23 08:50	
1,1-Dichloroethane	ug/L	ND	1.0	0.12	08/23/23 08:50	
1,1-Dichloroethene	ug/L	ND	1.0	0.22	08/23/23 08:50	
1,1-Dichloropropene	ug/L	ND	1.0	0.14	08/23/23 08:50	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.93	08/23/23 08:50	
1,2,3-Trichloropropane	ug/L	ND	2.5	0.41	08/23/23 08:50	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.73	08/23/23 08:50	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.32	08/23/23 08:50	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.5	0.78	08/23/23 08:50	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.20	08/23/23 08:50	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.12	08/23/23 08:50	
1,2-Dichloroethane	ug/L	ND	1.0	0.21	08/23/23 08:50	
1,2-Dichloroethene (Total)	ug/L	ND	1.0	0.22	08/23/23 08:50	
1,2-Dichloropropane	ug/L	ND	1.0	0.14	08/23/23 08:50	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.090	08/23/23 08:50	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.13	08/23/23 08:50	
1,3-Dichloropropane	ug/L	ND	1.0	0.10	08/23/23 08:50	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.13	08/23/23 08:50	
2,2-Dichloropropane	ug/L	ND	1.0	0.16	08/23/23 08:50	
2-Butanone (MEK)	ug/L	ND	10.0	0.98	08/23/23 08:50	
2-Chlorotoluene	ug/L	ND	1.0	0.11	08/23/23 08:50	
2-Hexanone	ug/L	ND	10.0	1.1	08/23/23 08:50	
4-Chlorotoluene	ug/L	ND	1.0	0.15	08/23/23 08:50	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.74	08/23/23 08:50	
Acetone	ug/L	ND	10.0	2.5	08/23/23 08:50	
Benzene	ug/L	ND	1.0	0.14	08/23/23 08:50	
Bromobenzene	ug/L	ND	1.0	0.088	08/23/23 08:50	
Bromochloromethane	ug/L	ND	1.0	0.20	08/23/23 08:50	
Bromodichloromethane	ug/L	ND	1.0	0.16	08/23/23 08:50	
Bromoform	ug/L	ND	1.0	0.68	08/23/23 08:50	
Bromomethane	ug/L	ND	5.0	0.46	08/23/23 08:50	
Carbon disulfide	ug/L	ND	5.0	0.98	08/23/23 08:50	
Carbon tetrachloride	ug/L	ND	1.0	0.17	08/23/23 08:50	
Chlorobenzene	ug/L	ND	1.0	0.089	08/23/23 08:50	
Chloroethane	ug/L	ND	1.0	0.37	08/23/23 08:50	
Chloroform	ug/L	ND	1.0	0.22	08/23/23 08:50	
Chloromethane	ug/L	ND	1.0	0.28	08/23/23 08:50	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

METHOD BLANK: 3411878 Matrix: Water
Associated Lab Samples: 60435728008, 60435728009, 60435728013, 60435728017, 60435728018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.13	08/23/23 08:50	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.078	08/23/23 08:50	
Dibromochloromethane	ug/L	ND	1.0	0.30	08/23/23 08:50	
Dibromomethane	ug/L	ND	1.0	0.11	08/23/23 08:50	
Dichlorodifluoromethane	ug/L	ND	1.0	0.20	08/23/23 08:50	
Ethylbenzene	ug/L	ND	1.0	0.12	08/23/23 08:50	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.42	08/23/23 08:50	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.097	08/23/23 08:50	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.13	08/23/23 08:50	
Methylene Chloride	ug/L	ND	1.0	0.39	08/23/23 08:50	
n-Butylbenzene	ug/L	ND	1.0	0.15	08/23/23 08:50	
n-Propylbenzene	ug/L	ND	1.0	0.12	08/23/23 08:50	
Naphthalene	ug/L	ND	10.0	0.82	08/23/23 08:50	
p-Isopropyltoluene	ug/L	ND	1.0	0.13	08/23/23 08:50	
sec-Butylbenzene	ug/L	ND	1.0	0.11	08/23/23 08:50	
Styrene	ug/L	ND	1.0	0.12	08/23/23 08:50	
tert-Butylbenzene	ug/L	ND	1.0	0.12	08/23/23 08:50	
Tetrachloroethene	ug/L	ND	1.0	0.33	08/23/23 08:50	
Toluene	ug/L	ND	1.0	0.25	08/23/23 08:50	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.10	08/23/23 08:50	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.18	08/23/23 08:50	
Trichloroethene	ug/L	ND	1.0	0.21	08/23/23 08:50	
Trichlorofluoromethane	ug/L	ND	1.0	0.16	08/23/23 08:50	
Vinyl chloride	ug/L	ND	1.0	0.17	08/23/23 08:50	
Xylene (Total)	ug/L	ND	3.0	0.28	08/23/23 08:50	
1,2-Dichlorobenzene-d4 (S)	%	100	80-120		08/23/23 08:50	
4-Bromofluorobenzene (S)	%	94	80-120		08/23/23 08:50	
Toluene-d8 (S)	%	99	80-120		08/23/23 08:50	

LABORATORY CONTROL SAMPLE: 3411879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	20.8	104	80-120	
1,1,1-Trichloroethane	ug/L	20	19.8	99	75-125	
1,1,2,2-Tetrachloroethane	ug/L	20	19.8	99	70-130	
1,1,2-Trichloroethane	ug/L	20	19.6	98	75-125	
1,1-Dichloroethane	ug/L	20	17.2	86	75-120	
1,1-Dichloroethene	ug/L	20	19.7	99	75-120	
1,1-Dichloropropene	ug/L	20	19.8	99	75-125	
1,2,3-Trichlorobenzene	ug/L	20	20.9	105	70-125	
1,2,3-Trichloropropane	ug/L	20	20.3	101	75-125	
1,2,4-Trichlorobenzene	ug/L	20	20.2	101	75-120	
1,2,4-Trimethylbenzene	ug/L	20	18.3	91	75-120	
1,2-Dibromo-3-chloropropane	ug/L	20	18.8	94	65-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

LABORATORY CONTROL SAMPLE: 3411879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	20.2	101	80-120	
1,2-Dichlorobenzene	ug/L	20	18.9	95	80-120	
1,2-Dichloroethane	ug/L	20	19.2	96	80-120	
1,2-Dichloroethene (Total)	ug/L	40	38.3	96	80-120	
1,2-Dichloropropane	ug/L	20	18.4	92	80-120	
1,3,5-Trimethylbenzene	ug/L	20	18.9	95	75-120	
1,3-Dichlorobenzene	ug/L	20	19.0	95	80-120	
1,3-Dichloropropane	ug/L	20	19.4	97	80-120	
1,4-Dichlorobenzene	ug/L	20	20.0	100	80-120	
2,2-Dichloropropane	ug/L	20	19.8	99	60-130	
2-Butanone (MEK)	ug/L	100	122	122	60-140	
2-Chlorotoluene	ug/L	20	18.5	93	80-120	
2-Hexanone	ug/L	100	117	117	55-155	
4-Chlorotoluene	ug/L	20	18.6	93	80-120	
4-Methyl-2-pentanone (MIBK)	ug/L	100	103	103	70-135	
Acetone	ug/L	100	121	121	25-185	
Benzene	ug/L	20	20.2	101	80-120	
Bromobenzene	ug/L	20	19.4	97	80-120	
Bromochloromethane	ug/L	20	20.5	102	80-120	
Bromodichloromethane	ug/L	20	19.0	95	80-120	
Bromoform	ug/L	20	19.7	98	70-135	
Bromomethane	ug/L	20	18.6	93	50-145	
Carbon disulfide	ug/L	20	18.6	93	70-130	
Carbon tetrachloride	ug/L	20	20.2	101	80-130	
Chlorobenzene	ug/L	20	20.6	103	80-120	
Chloroethane	ug/L	20	17.5	87	60-135	
Chloroform	ug/L	20	20.5	103	75-125	
Chloromethane	ug/L	20	15.8	79	60-130	
cis-1,2-Dichloroethene	ug/L	20	19.8	99	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.0	100	75-125	
Dibromochloromethane	ug/L	20	20.5	102	80-120	
Dibromomethane	ug/L	20	19.1	96	75-125	
Dichlorodifluoromethane	ug/L	20	19.7	98	40-170	
Ethylbenzene	ug/L	20	20.1	101	80-120	
Hexachloro-1,3-butadiene	ug/L	20	18.7	93	70-125	
Isopropylbenzene (Cumene)	ug/L	20	21.0	105	80-130	
Methyl-tert-butyl ether	ug/L	20	18.1	90	75-125	
Methylene Chloride	ug/L	20	18.8	94	70-130	
n-Butylbenzene	ug/L	20	18.0	90	70-120	
n-Propylbenzene	ug/L	20	19.0	95	80-120	
Naphthalene	ug/L	20	20.0	100	60-140	
p-Isopropyltoluene	ug/L	20	18.9	94	80-120	
sec-Butylbenzene	ug/L	20	19.5	98	80-125	
Styrene	ug/L	20	20.8	104	80-155	
tert-Butylbenzene	ug/L	20	19.2	96	75-125	
Tetrachloroethene	ug/L	20	22.6	113	80-125	
Toluene	ug/L	20	19.9	100	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

LABORATORY CONTROL SAMPLE: 3411879

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,2-Dichloroethene	ug/L	20	18.5	92	75-125	
trans-1,3-Dichloropropene	ug/L	20	20.4	102	70-125	
Trichloroethene	ug/L	20	19.6	98	80-125	
Trichlorofluoromethane	ug/L	20	19.5	97	65-140	
Vinyl chloride	ug/L	20	16.7	83	65-130	
Xylene (Total)	ug/L	60	61.0	102	80-120	
1,2-Dichlorobenzene-d4 (S)	%			101	80-120	
4-Bromofluorobenzene (S)	%			98	80-120	
Toluene-d8 (S)	%			100	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
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(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

QC Batch: 862110
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60435728019

METHOD BLANK: 3413925 Matrix: Water
Associated Lab Samples: 60435728019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	0.084	08/28/23 08:44	
1,1,1-Trichloroethane	ug/L	ND	1.0	0.11	08/28/23 08:44	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	0.15	08/28/23 08:44	
1,1,2-Trichloroethane	ug/L	ND	1.0	0.14	08/28/23 08:44	
1,1-Dichloroethane	ug/L	ND	1.0	0.12	08/28/23 08:44	
1,1-Dichloroethene	ug/L	ND	1.0	0.22	08/28/23 08:44	
1,1-Dichloropropene	ug/L	ND	1.0	0.14	08/28/23 08:44	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	0.93	08/28/23 08:44	
1,2,3-Trichloropropane	ug/L	ND	2.5	0.41	08/28/23 08:44	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	0.73	08/28/23 08:44	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	0.32	08/28/23 08:44	
1,2-Dibromo-3-chloropropane	ug/L	ND	2.5	0.78	08/28/23 08:44	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	0.20	08/28/23 08:44	
1,2-Dichlorobenzene	ug/L	ND	1.0	0.12	08/28/23 08:44	
1,2-Dichloroethane	ug/L	ND	1.0	0.21	08/28/23 08:44	
1,2-Dichloroethene (Total)	ug/L	ND	1.0	0.22	08/28/23 08:44	
1,2-Dichloropropane	ug/L	ND	1.0	0.14	08/28/23 08:44	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	0.090	08/28/23 08:44	
1,3-Dichlorobenzene	ug/L	ND	1.0	0.13	08/28/23 08:44	
1,3-Dichloropropane	ug/L	ND	1.0	0.10	08/28/23 08:44	
1,4-Dichlorobenzene	ug/L	ND	1.0	0.13	08/28/23 08:44	
2,2-Dichloropropane	ug/L	ND	1.0	0.16	08/28/23 08:44	
2-Butanone (MEK)	ug/L	ND	10.0	0.98	08/28/23 08:44	
2-Chlorotoluene	ug/L	ND	1.0	0.11	08/28/23 08:44	
2-Hexanone	ug/L	ND	10.0	1.1	08/28/23 08:44	
4-Chlorotoluene	ug/L	ND	1.0	0.15	08/28/23 08:44	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	0.74	08/28/23 08:44	
Acetone	ug/L	ND	10.0	2.5	08/28/23 08:44	
Benzene	ug/L	ND	1.0	0.14	08/28/23 08:44	
Bromobenzene	ug/L	ND	1.0	0.088	08/28/23 08:44	
Bromochloromethane	ug/L	ND	1.0	0.20	08/28/23 08:44	
Bromodichloromethane	ug/L	ND	1.0	0.16	08/28/23 08:44	
Bromoform	ug/L	ND	1.0	0.68	08/28/23 08:44	
Bromomethane	ug/L	ND	5.0	0.46	08/28/23 08:44	
Carbon disulfide	ug/L	ND	5.0	0.98	08/28/23 08:44	
Carbon tetrachloride	ug/L	ND	1.0	0.17	08/28/23 08:44	
Chlorobenzene	ug/L	ND	1.0	0.089	08/28/23 08:44	
Chloroethane	ug/L	ND	1.0	0.37	08/28/23 08:44	
Chloroform	ug/L	ND	1.0	0.22	08/28/23 08:44	
Chloromethane	ug/L	ND	1.0	0.28	08/28/23 08:44	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

METHOD BLANK: 3413925 Matrix: Water
Associated Lab Samples: 60435728019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	ND	1.0	0.13	08/28/23 08:44	
cis-1,3-Dichloropropene	ug/L	ND	1.0	0.078	08/28/23 08:44	
Dibromochloromethane	ug/L	ND	1.0	0.30	08/28/23 08:44	
Dibromomethane	ug/L	ND	1.0	0.11	08/28/23 08:44	
Dichlorodifluoromethane	ug/L	ND	1.0	0.20	08/28/23 08:44	
Ethylbenzene	ug/L	ND	1.0	0.12	08/28/23 08:44	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	0.42	08/28/23 08:44	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	0.097	08/28/23 08:44	
Methyl-tert-butyl ether	ug/L	ND	1.0	0.13	08/28/23 08:44	
Methylene Chloride	ug/L	ND	1.0	0.39	08/28/23 08:44	
n-Butylbenzene	ug/L	ND	1.0	0.15	08/28/23 08:44	
n-Propylbenzene	ug/L	ND	1.0	0.12	08/28/23 08:44	
Naphthalene	ug/L	ND	10.0	0.82	08/28/23 08:44	
p-Isopropyltoluene	ug/L	ND	1.0	0.13	08/28/23 08:44	
sec-Butylbenzene	ug/L	ND	1.0	0.11	08/28/23 08:44	
Styrene	ug/L	ND	1.0	0.12	08/28/23 08:44	
tert-Butylbenzene	ug/L	ND	1.0	0.12	08/28/23 08:44	
Tetrachloroethene	ug/L	ND	1.0	0.33	08/28/23 08:44	
Toluene	ug/L	ND	1.0	0.25	08/28/23 08:44	
trans-1,2-Dichloroethene	ug/L	ND	1.0	0.10	08/28/23 08:44	
trans-1,3-Dichloropropene	ug/L	ND	1.0	0.18	08/28/23 08:44	
Trichloroethene	ug/L	ND	1.0	0.21	08/28/23 08:44	
Trichlorofluoromethane	ug/L	ND	1.0	0.16	08/28/23 08:44	
Vinyl chloride	ug/L	ND	1.0	0.17	08/28/23 08:44	
Xylene (Total)	ug/L	ND	3.0	0.28	08/28/23 08:44	
1,2-Dichlorobenzene-d4 (S)	%	101	80-120		08/28/23 08:44	
4-Bromofluorobenzene (S)	%	97	80-120		08/28/23 08:44	
Toluene-d8 (S)	%	100	80-120		08/28/23 08:44	

LABORATORY CONTROL SAMPLE: 3413926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.4	107	80-120	
1,1,1-Trichloroethane	ug/L	20	21.3	106	75-125	
1,1,2,2-Tetrachloroethane	ug/L	20	20.5	103	70-130	
1,1,2-Trichloroethane	ug/L	20	19.4	97	75-125	
1,1-Dichloroethane	ug/L	20	20.2	101	75-120	
1,1-Dichloroethene	ug/L	20	19.7	98	75-120	
1,1-Dichloropropene	ug/L	20	20.6	103	75-125	
1,2,3-Trichlorobenzene	ug/L	20	21.7	108	70-125	
1,2,3-Trichloropropane	ug/L	20	20.4	102	75-125	
1,2,4-Trichlorobenzene	ug/L	20	21.1	105	75-120	
1,2,4-Trimethylbenzene	ug/L	20	18.9	94	75-120	
1,2-Dibromo-3-chloropropane	ug/L	20	19.6	98	65-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

LABORATORY CONTROL SAMPLE: 3413926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	20.5	103	80-120	
1,2-Dichlorobenzene	ug/L	20	19.3	97	80-120	
1,2-Dichloroethane	ug/L	20	20.1	101	80-120	
1,2-Dichloroethene (Total)	ug/L	40	39.7	99	80-120	
1,2-Dichloropropane	ug/L	20	19.6	98	80-120	
1,3,5-Trimethylbenzene	ug/L	20	19.4	97	75-120	
1,3-Dichlorobenzene	ug/L	20	19.6	98	80-120	
1,3-Dichloropropane	ug/L	20	19.4	97	80-120	
1,4-Dichlorobenzene	ug/L	20	20.6	103	80-120	
2,2-Dichloropropane	ug/L	20	21.4	107	60-130	
2-Butanone (MEK)	ug/L	100	124	124	60-140	
2-Chlorotoluene	ug/L	20	19.3	97	80-120	
2-Hexanone	ug/L	100	124	124	55-155	
4-Chlorotoluene	ug/L	20	18.8	94	80-120	
4-Methyl-2-pentanone (MIBK)	ug/L	100	105	105	70-135	
Acetone	ug/L	100	126	126	25-185	
Benzene	ug/L	20	20.9	104	80-120	
Bromobenzene	ug/L	20	20.0	100	80-120	
Bromochloromethane	ug/L	20	20.9	104	80-120	
Bromodichloromethane	ug/L	20	20.4	102	80-120	
Bromoform	ug/L	20	20.4	102	70-135	
Bromomethane	ug/L	20	14.8	74	50-145	
Carbon disulfide	ug/L	20	18.9	94	70-130	
Carbon tetrachloride	ug/L	20	21.5	107	80-130	
Chlorobenzene	ug/L	20	20.9	104	80-120	
Chloroethane	ug/L	20	18.2	91	60-135	
Chloroform	ug/L	20	21.3	106	75-125	
Chloromethane	ug/L	20	14.5	73	60-130	
cis-1,2-Dichloroethene	ug/L	20	20.4	102	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.7	103	75-125	
Dibromochloromethane	ug/L	20	21.5	108	80-120	
Dibromomethane	ug/L	20	20.0	100	75-125	
Dichlorodifluoromethane	ug/L	20	18.9	94	40-170	
Ethylbenzene	ug/L	20	20.9	104	80-120	
Hexachloro-1,3-butadiene	ug/L	20	20.4	102	70-125	
Isopropylbenzene (Cumene)	ug/L	20	21.9	110	80-130	
Methyl-tert-butyl ether	ug/L	20	19.4	97	75-125	
Methylene Chloride	ug/L	20	19.9	99	70-130	
n-Butylbenzene	ug/L	20	18.5	92	70-120	
n-Propylbenzene	ug/L	20	19.9	100	80-120	
Naphthalene	ug/L	20	23.0	115	60-140	
p-Isopropyltoluene	ug/L	20	20.0	100	80-120	
sec-Butylbenzene	ug/L	20	19.7	99	80-125	
Styrene	ug/L	20	21.3	107	80-155	
tert-Butylbenzene	ug/L	20	19.8	99	75-125	
Tetrachloroethene	ug/L	20	22.5	113	80-125	
Toluene	ug/L	20	20.2	101	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

LABORATORY CONTROL SAMPLE: 3413926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,2-Dichloroethene	ug/L	20	19.3	97	75-125	
trans-1,3-Dichloropropene	ug/L	20	20.9	104	70-125	
Trichloroethene	ug/L	20	20.8	104	80-125	
Trichlorofluoromethane	ug/L	20	19.8	99	65-140	
Vinyl chloride	ug/L	20	16.4	82	65-130	
Xylene (Total)	ug/L	60	62.7	104	80-120	
1,2-Dichlorobenzene-d4 (S)	%			98	80-120	
4-Bromofluorobenzene (S)	%			98	80-120	
Toluene-d8 (S)	%			100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413952 3413953

Parameter	Units	60435728019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	100	100	106	104	106	104	80-120	2	15	
1,1,1-Trichloroethane	ug/L	ND	100	100	106	102	106	102	75-125	4	15	
1,1,2,2-Tetrachloroethane	ug/L	ND	100	100	99.7	92.9	100	93	80-120	7	15	
1,1,2-Trichloroethane	ug/L	ND	100	100	94.2	95.8	94	96	80-120	2	20	
1,1-Dichloroethane	ug/L	ND	100	100	98.8	95.4	99	95	75-120	4	15	
1,1-Dichloroethene	ug/L	ND	100	100	101	98.0	101	98	75-120	3	25	
1,1-Dichloropropene	ug/L	ND	100	100	104	99.2	104	99	75-125	5	20	
1,2,3-Trichlorobenzene	ug/L	ND	100	100	96.5	103	97	103	60-135	7	25	
1,2,3-Trichloropropane	ug/L	ND	100	100	99.0	88.5	99	88	75-120	11	20	
1,2,4-Trichlorobenzene	ug/L	ND	100	100	101	101	101	101	65-130	0	25	
1,2,4-Trimethylbenzene	ug/L	ND	100	100	99.7	93.1	100	93	80-120	7	20	
1,2-Dibromo-3-chloropropane	ug/L	ND	100	100	89.9	92.6	90	93	65-130	3	25	
1,2-Dibromoethane (EDB)	ug/L	ND	100	100	99.0	98.3	99	98	80-120	1	20	
1,2-Dichlorobenzene	ug/L	ND	100	100	98.3	94.7	98	95	80-120	4	20	
1,2-Dichloroethane	ug/L	ND	100	100	98.7	95.7	99	96	80-120	3	25	
1,2-Dichloroethene (Total)	ug/L	192	200	200	392	370	100	89	80-120	6	20	
1,2-Dichloropropane	ug/L	ND	100	100	94.6	91.4	95	91	80-120	3	20	
1,3,5-Trimethylbenzene	ug/L	ND	100	100	101	95.9	101	96	75-120	5	20	
1,3-Dichlorobenzene	ug/L	ND	100	100	98.8	95.2	99	95	80-120	4	20	
1,3-Dichloropropane	ug/L	ND	100	100	95.1	95.2	95	95	80-120	0	20	
1,4-Dichlorobenzene	ug/L	ND	100	100	104	99.0	104	99	80-120	4	20	
2,2-Dichloropropane	ug/L	ND	100	100	95.8	92.0	96	92	55-135	4	30	
2-Butanone (MEK)	ug/L	ND	500	500	357	344	71	69	50-155	4	25	
2-Chlorotoluene	ug/L	ND	100	100	101	95.2	101	95	80-120	6	20	
2-Hexanone	ug/L	ND	500	500	387	380	77	76	55-145	2	20	
4-Chlorotoluene	ug/L	ND	100	100	97.0	92.4	97	92	80-120	5	20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	500	500	478	472	96	94	70-130	1	20	
Acetone	ug/L	40.8J	500	500	289	294	50	51	35-160	2	25	
Benzene	ug/L	ND	100	100	108	101	108	101	80-120	6	25	
Bromobenzene	ug/L	ND	100	100	102	97.4	102	97	80-120	4	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(913)599-5665

QUALITY CONTROL DATA

Project: CLINTON ENGINES
Pace Project No.: 60435728

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3413952 3413953

Parameter	Units	60435728019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromochloromethane	ug/L	ND	100	100	103	103	103	103	80-120	0	20	
Bromodichloromethane	ug/L	ND	100	100	98.3	95.1	98	95	80-120	3	15	
Bromoform	ug/L	ND	100	100	98.7	99.3	99	99	60-130	1	20	
Bromomethane	ug/L	ND	100	100	77.8	80.4	78	80	50-140	3	45	
Carbon disulfide	ug/L	ND	100	100	95.2	89.2	95	89	75-125	7	25	
Carbon tetrachloride	ug/L	ND	100	100	108	105	108	105	70-130	3	20	
Chlorobenzene	ug/L	ND	100	100	103	104	103	104	80-120	0	20	
Chloroethane	ug/L	ND	100	100	92.9	84.6	93	85	70-130	9	20	
Chloroform	ug/L	7.6	100	100	115	106	107	98	75-120	8	20	
Chloromethane	ug/L	ND	100	100	71.1	69.2	71	69	45-145	3	30	
cis-1,2-Dichloroethene	ug/L	189	100	100	290	276	101	86	80-120	5	20	
cis-1,3-Dichloropropene	ug/L	ND	100	100	99.5	99.4	100	99	75-125	0	20	
Dibromochloromethane	ug/L	ND	100	100	103	99.2	103	99	75-125	4	20	
Dibromomethane	ug/L	ND	100	100	97.8	96.5	98	96	80-120	1	20	
Dichlorodifluoromethane	ug/L	ND	100	100	105	101	105	101	25-180	4	25	
Ethylbenzene	ug/L	ND	100	100	103	103	103	103	80-120	0	25	
Hexachloro-1,3-butadiene	ug/L	ND	100	100	103	101	103	101	65-125	2	30	
Isopropylbenzene (Cumene)	ug/L	ND	100	100	111	110	111	110	80-125	1	20	
Methyl-tert-butyl ether	ug/L	ND	100	100	93.8	90.0	94	90	75-125	4	30	
Methylene Chloride	ug/L	ND	100	100	97.8	94.1	98	94	70-140	4	25	
n-Butylbenzene	ug/L	ND	100	100	95.9	91.5	96	92	70-125	5	25	
n-Propylbenzene	ug/L	ND	100	100	105	98.6	105	99	80-120	7	20	
Naphthalene	ug/L	ND	100	100	101	105	101	105	60-140	4	25	
p-Isopropyltoluene	ug/L	ND	100	100	103	97.0	103	97	80-120	6	20	
sec-Butylbenzene	ug/L	ND	100	100	104	97.9	104	98	80-120	6	20	
Styrene	ug/L	ND	100	100	110	107	110	107	80-120	2	30	
tert-Butylbenzene	ug/L	ND	100	100	106	102	106	102	80-120	4	20	
Tetrachloroethene	ug/L	ND	100	100	116	114	116	114	80-125	2	25	
Toluene	ug/L	ND	100	100	101	99.8	101	100	80-120	1	25	
trans-1,2-Dichloroethene	ug/L	2.8J	100	100	102	94.4	99	92	80-120	8	20	
trans-1,3-Dichloropropene	ug/L	ND	100	100	97.0	98.6	97	99	75-125	2	15	
Trichloroethene	ug/L	65.0	100	100	170	166	105	101	80-125	3	20	
Trichlorofluoromethane	ug/L	ND	100	100	102	96.7	102	97	75-125	5	20	
Vinyl chloride	ug/L	8.2	100	100	90.4	89.3	82	81	65-140	1	25	
Xylene (Total)	ug/L	ND	300	300	314	311	105	104	80-120	1	30	
1,2-Dichlorobenzene-d4 (S)	%						103	100	80-120			
4-Bromofluorobenzene (S)	%						98	97	80-120			
Toluene-d8 (S)	%						100	98	80-120			
Preservation pH		1.0			1.0	1.0				0		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

QUALIFIERS

Project: CLINTON ENGINES
Pace Project No.: 60435728

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 861271

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: 861634

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Pace Analytical Services, LLC
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Lenexa, KS 66219
(913)599-5665

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CLINTON ENGINES
Pace Project No.: 60435728

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60435728001	**MW-102**	EPA 5030B/8260	861271		
60435728002	**MW-9**	EPA 5030B/8260	861271		
60435728003	**MW-101**	EPA 5030B/8260	861271		
60435728004	**MW-103**	EPA 5030B/8260	861271		
60435728005	**MW-14**	EPA 5030B/8260	861271		
60435728006	**MW-104**	EPA 5030B/8260	861271		
60435728007	**MW-13**	EPA 5030B/8260	861271		
60435728008	**MW-X**	EPA 5030B/8260	861634		
60435728009	**MW-12**	EPA 5030B/8260	861271		
60435728009	**MW-12**	EPA 5030B/8260	861634		
60435728010	**MW-6B**	EPA 5030B/8260	861271		
60435728011	**MW-4B**	EPA 5030B/8260	861271		
60435728012	**MW-11**	EPA 5030B/8260	861271		
60435728013	**MW-2B**	EPA 5030B/8260	861634		
60435728014	**MW-8B**	EPA 5030B/8260	861271		
60435728015	**MW-10A**	EPA 5030B/8260	861272		
60435728016	**MW-10B**	EPA 5030B/8260	861272		
60435728017	**MW-Y**	EPA 5030B/8260	861272		
60435728017	**MW-Y**	EPA 5030B/8260	861634		
60435728018	**MW-1B**	EPA 5030B/8260	861634		
60435728019	**MW-3B**	EPA 5030B/8260	862110		
60435728020	**FIELD BLANK**	EPA 5030B/8260	861272		
60435728021	**TRIP BLANK**	EPA 5030B/8260	861272		

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-LENE-0009	
	Revision: 2	Effective Date: 01/12/2022

WO# : 60435728

Client Name: Tetra Tech EMI

Courier: FedEx ☐ UPS ☐ VIA ☐ Clay ☐ PEX ☐ ECI ☐ Pace ☑ Xroads ☐ Client ☐ Other ☐

Tracking #: _____ Pace Shipping Label Used? Yes ☐ No ☑

Custody Seal on Cooler/Box Present: Yes ☑ No ☐ Seals intact: Yes ☑ No ☐

Packing Material: Bubble Wrap ☑ Bubble Bags ☑ Foam ☐ None ☐ Other ☐

Thermometer Used: T299 **Type of Ice:** (Wet) Blue None

Cooler Temperature (°C): **As-read** 4.9 **Corr. Factor** +0.2 **Corrected** 5.1

Date and initials of person examining contents: JA 8/18/23

Temperature should be above freezing to 6°C

Chain of Custody present:	☑Yes ☐No ☐N/A	
Chain of Custody relinquished:	☑Yes ☐No ☐N/A	
Samples arrived within holding time:	☑Yes ☐No ☐N/A	
Short Hold Time analyses (<72hr):	☐Yes ☑No ☐N/A	
Rush Turn Around Time requested:	☐Yes ☑No ☐N/A	
Sufficient volume:	☑Yes ☐No ☐N/A	
Correct containers used:	☑Yes ☐No ☐N/A	
Pace containers used:	☑Yes ☐No ☐N/A	
Containers intact:	☑Yes ☐No ☐N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	☐Yes ☐No ☑N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☑N/A	
Sample labels match COC: Date / time / ID / analyses	☑Yes ☐No ☐N/A	
Samples contain multiple phases? Matrix: WT	☐Yes ☑No ☐N/A	
Containers requiring pH preservation in compliance? (HNO_3, H_2SO_4, HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) **LOT#:**	☐Yes ☐No ☑N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	☐Yes ☐No	
Potassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
Trip Blank present:	☑Yes ☐No ☐N/A	
Headspace in VOA vials (>6mm):	☐Yes ☑No ☐N/A	
Samples from USDA Regulated Area: State:	☐Yes ☐No ☑N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	☐Yes ☐No ☑N/A	

Client Notification/ Resolution: Copy COC to Client? Y / N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	TETRA TECH EMI	Report To:	Kaitlyn Mitchell	Attention:	
Address:	415 Oak	Copy To:		Company Name:	
	Kansas City, MO 64106			Address:	
Email:	kaitlyn.mitchell@tetratech.com	Purchase Order #:		Pace Quote:	
Phone:	(816)412-1742 Fax	Project Name:	Clinton Engines	Pace Project Manager:	jamie.church@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	15191, line 5

Regulatory Agency: | State / Location: IA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	8260 VOCs	Trip Blank-8260 VOCs	Residual Chlorine (Y/N)	6043578
1	MW-102	WT	G	8/17/23	0915				3				X						X			
2	MW-9				0935								X						X			
3	MW-101				0952								X						X			
4	MW-103				1030								X						X			
5	MW-14				1045								X						X			
6	MW-104				1058								X						X			
7	MW-13				1120								X						X			
8	MW-X				1120								X						X			
9	MW-12				1145								X						X			
10	MW-6B				1312								X						X			
11	MW-4B				1324								X						X			
12	MW-11				1335								X						X			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
				VF Pace	8/18	1515	5.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Clay Weiss

SIGNATURE of SAMPLER: [signature] DATE Signed: 8/18/23

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Section A	Section B	Section C
Required Client Information:	Required Project Information:	Invoice Information:
Company: TETRA TECH EMI	Report To: Kaitlyn Mitchell	Attention:
Address: 415 Oak	Copy To:	Company Name:
Kansas City, MO 64106		Address:
Email: kaitlyn.mitchell@tetratech.com	Purchase Order #:	Pace Quote:
Phone: (816)412-1742 Fax	Project Name: Clinton Engines	Pace Project Manager: jamie.church@pacelabs.com,
Requested Due Date:	Project #:	Pace Profile #: 15191, line 5

Regulatory Agency

State / Location: IA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	8260 VOCs	Trip Blank-8260 VOCs	Residual Chlorine (Y/N)	60435128
1	MW-2B	WT	G	8/17/23	1352				3				X						X			
2	MW-8B				1405								X						X			
3	MW-10A				1418								X						X			
4	MW-10B				1430								X						X			
5	MW-Y				1430								X						X			
6	MW-1B				1452								X						X			
7	MW-3B				1505								X						X			
8	Field Blank				1510								X						X			
9	Trip Blank				1515				2				X							X		
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
				LF Pace	8/18	1515	5.1	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Clay Weiss

SIGNATURE of SAMPLER: [signature]

DATE Signed: 8/18/23

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

DC#_Title: ENV-FRM-LENE-0001_Sample Container Count
Revision: 3 | Effective Date: | Issued by: Lenexa

Client: Tetra Tech EMI

Profile # 15191, lines

Site: Clinton Engines

Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3C	BP3Z	WPDU	ZPLC	Other		
1	WT	3																														
2																																
3																																
4																																
5																																
6																																
7																																
8																																
9																																
10																																
11																																
12	↓	↓																														

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1C	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2C	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3C	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60435728

Client: Tetra Tech EMI

Profile # 15191, lines

Site: Clinton Engines

Notes

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	DG9U	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	BP3U	BP1N	BP3N	BP3F	BP3S	BP3C	BP3Z	WPDU	ZPLC	Other		
1	WT	3																														
2																																
3																																
4																																
5																																
6																																
7																																
8		↓																														
9	↓	2	TRIP BLANKS																													
10																																
11																																
12																																

Container Codes

Glass			
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass
		AG5U	100mL unpres amber glass

Plastic	
BP1C	1L NAOH plastic
BP1N	1L HNO3 plastic
BP1S	1L H2SO4 plastic
BP1U	1L unpreserved plastic
BP1Z	1L NaOH, Zn Acetate
BP2C	500mL NAOH plastic
BP2N	500mL HNO3 plastic
BP2S	500mL H2SO4 plastic
BP2U	500mL unpreserved plastic
BP2Z	500mL NaOH, Zn Acetate
BP3C	250mL NaOH plastic
BP3F	250mL HNO3 plastic - field filtered
BP3N	250mL HNO3 plastic
BP3U	250mL unpreserved plastic
BP3S	250mL H2SO4 plastic
BP3Z	250mL NaOH, Zn Acetate
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic
WPDU	16oz unpresserved plstic

Misc.	
I	Wipe/Swab
SP5T	120mL Coliform Na Thiosulfate
ZPLC	Ziploc Bag
AF	Air Filter
C	Air Cassettes
R	Terracore Kit
U	Summa Can

Matrix	
WT	Water
SL	Solid
NAL	Non-aqueous Liquid
OL	OIL
WP	Wipe
DW	Drinking Water

Work Order Number: 60435728

DATA VERIFICATION REPORT

Prepared by: Ellen McEntee

Date: September 1, 2023

Site Name/Job Number: Clinton Engines / 103G65210190.009.03

Laboratory: Pace Analytical, Lenexa, KS

Data Package or SDG Number: 60435728

Sample Designations/Names:

MW-1B	MW-2B	MW-3B	MW-4B	MW-6B	MW-8B
MW-9	MW10A	MW10B	MW-11	MW-12	MW-13
MW-14	MW-101	MW-102	MW-103	MW-104	MW-X
MW-Y	FIELD BLANK	TRIP BLANK			

Matrices: Water

Analytical Parameters: VOCs by SW-846 Method 8260

Data Package Element	Usable	Rejected	NA	Description of Affected Data (note specific samples and analytical parameters affected)
Chain of custody	☑	☐	☐	The chain of custody was completed appropriately with the following exception. The "relinquished by" section of the chain of custody was not signed and dated. Results are not qualified based on this.
Data package completeness	☑	☐	☐	The data package contains all the required elements.
Sample preservation, storage, and holding times	☑	☐	☐	The samples were received on 08/18/2023; the samples arrived in good condition. All samples were analyzed within the recommended holding time.
Method and field blank contamination	☑	☐	☐	The method blanks, field blank, and trip blank were non-detect for all target analytes.
Surrogate spikes	☑	☐	☐	Surrogate spikes were within control limits.
Matrix spikes/matrix spike duplicates (MS/MSD)	☑	☐	☐	MS/MSD was analyzed on sample MW-3B and was within control limits. MS/MSDs analyzed on samples from other data packages were not assessed.
Laboratory control samples/Laboratory control sample duplicates (LCS/LCSD)	☑	☐	☐	The LCS recoveries were within control limits.

Data Package Element	Usable	Rejected	NA	Description of Affected Data (note specific samples and analytical parameters affected)
Other (Field Duplicates)	☑	☐	☐	**MW-13/MW-X:** Field duplicate precision criteria were met for all analytes. **MW-10B/MW-Y:** Field duplicate precision criteria were met for all analytes; however, the parent sample was analyzed at a 50-fold dilution and the field duplicate sample was analyzed undiluted. This resulted in detected results in the field duplicate that are reported as non-detect in the parent sample at elevated detection limits.
Summary Data are usable as reported by the laboratory. No qualification of results is recommended.				