



April 10, 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
31st & Prospect Development Site
2501, 2503, and 2505 East 30th Street; 3012 Prospect Avenue; and 3005, 3009, 3011, and
3015 Wabash Avenue, Kansas City, Jackson County, Missouri
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 31st & Prospect Development Site (the Site) located in Kansas City, Jackson County, Missouri.

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,

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Enclosure

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**TARGETED BROWNFIELDS ASSESSMENT
PHASE II ENVIRONMENTAL SITE ASSESSMENT, QUARTER 4**

**31st & PROSPECT DEVELOPMENT SITE
2501, 2503, AND 2505 EAST 30th STREET; 3012 PROSPECT AVENUE;
AND 3005, 3009, 3011, AND 3015 WABASH AVENUE
KANSAS CITY, JACKSON COUNTY, MISSOURI**



Prepared for

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 7**

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1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) tasked Toeroek Associates, Inc. (Toeroek) and its teaming subcontractor, Tetra Tech, Inc., (hereafter “Toeroek Team”) with providing technical support to the EPA Region 7 Brownfields Program under Contract 68HERH19D0018, Task Order 68HE0719F0190. EPA Region 7 requested the Toeroek Team conduct a Phase II Environmental Site Assessment (ESA) as part of a Targeted Brownfields Assessment (TBA) of a portion of the 31st & Prospect Development Site (the Site). The Site includes eight parcels of land located at 2501, 2503, and 2505 East 30th Street; 3012 Prospect Avenue; and 3005, 3009, 3011, and 3015 Wabash Avenue in Kansas City, Jackson County, Missouri ([APPENDIX A, Figure 1](#)).

The Toeroek Team is performing this Phase II ESA based on results of previous investigations by CEG Assessments (CEG) (2016), Ramboll Environ (Ramboll) (2016), and SCS Engineers (SCS) (2018, 2019). The previous investigations occurred over a larger portion of the 31st & Prospect Development Site, a 52-parcel area. During the previous investigations in the larger, 52-parcel area, a plume of volatile organic compounds (VOCs) in groundwater was identified under eight parcels within the Site. According to the Brownfields Assessment Application (EPA 2020), the previous property owners, CRV, LLC, and the City of Kansas City, Missouri, were interested in redeveloping the property, contingent on findings of this Phase II ESA. The Site has since been sold. Currently, the City and EPA are attempting to establish an access agreement and TBA application for the new owner of the Site.

The scope of this Phase II ESA included collection of subsurface soil, soil-gas, and groundwater samples in January 2022 (Quarter 1 sampling event), to confirm or eliminate recognized environmental conditions (RECs) identified during the previous Phase I ESA (SCS 2018) and multiple Phase II ESAs (CEG 2016, Ramboll 2016, SCS 2019). In addition, the Toeroek Team installed three permanent groundwater monitoring wells on the Site in January 2022 for long-term groundwater monitoring that will aid potential remediation under the State of Missouri’s Brownfields/Voluntary Cleanup Program (BVCP) (Toeroek 2022a). The Toeroek Team is now conducting quarterly groundwater sampling of these monitoring wells. This report details the fourth quarterly (Quarter 4) sampling event at the Site.

This Phase II ESA, Quarter 4 report is consistent with ASTM International (ASTM) 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 this Phase II ESA were to: (1) confirm or eliminate RECs identified during previous investigations; (2) acquire information regarding nature and concentration 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, Quarter 4 sampling event.

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 Kansas City, Jackson County, Missouri, and appears on the Kansas City, Missouri – Kansas Quadrangle, U.S. Geological Survey (USGS) 7.5-minute topographic series map (USGS 2021) ([APPENDIX A, Figure 1](#)). The Site consists of eight vacant parcels encompassing approximately 1 acre of land. Coordinates at the approximate center of the Site are 39.071081 degrees north latitude and 94.553162 degrees west longitude.

2.2 PHYSICAL SETTING

The Site lies within the east-central portion of the City of Kansas City, Missouri. It is bounded to the north by East 30th Street, with residential buildings beyond; to the east by Prospect Avenue, with commercial businesses beyond; to the south-southeast by Rent-A-Center Furniture Store and associated parking lot, with the Kansas City Public Library and associated parking lot, and East 31st Street beyond; to the west by Wabash Avenue, with residential buildings beyond; and to the north-northwest by a vacant building, with East 30th Street beyond.

2.2.1 Geologic Setting

Jackson County is within west-central Missouri, in the Iowa and Missouri Deep Loess Hills Resource Area of the Central Feed Grains and Livestock Region of the United States. The Missouri River is the northern boundary of Jackson County. The northern part of Jackson County is a near-level flood plain of the Missouri River. Adjacent to the flood plain and to the south are moderately sloping to steep, loess-covered bluffs and hills. The remainder of Jackson County, which includes the Site area, consists of gently to moderately sloping uplands and flood plains of the Blue River, Little Blue River, Sni-A-Bar Creek, and their tributaries (U.S. Department of Agriculture [USDA] 1984).

The upper bedrock formation in the vicinity of the Site consists of the middle Kansas City Group, Missourian Series, Pennsylvania System (Missouri Bureau of Geology and Mines 1917). Underlying the Kansas City Group are the shales of the Pleasanton Group. Underlying the Pleasanton Group are

predominantly shales of the Marmaton and Cherokee Groups of the Desmoinesian Series (Missouri Department of Natural Resources [MoDNR] 1997). Shale bedrock was encountered at depths of approximately 18 to 24 feet (ft) below ground surface (bgs) during the Quarter 1 sampling event (Toeroek 2022a).

Soil at the Site has been classified according to USDA Soil Conservation Services Web Soil Survey, reviewed in January 2022. The soil consists of urban land, Harvester Complex with 2 to 9 percent slopes. This soil type is moderately well drained with high runoff, and consists of silt loam from 0 to 7 inches deep, silty clay loam from 7 to 31 inches deep, and clay loam from 31 to 80 inches deep (USDA 2022).

2.2.2 Hydrogeology

Land surface elevations in Jackson County range from 1,105 ft above mean sea level (amsl) on the divide in the south-central part of the County to 690 ft amsl at normal water level on the Missouri River located on the county line of most of the northern side of the County (USDA 1984). Local topographic elevation at the center of the Site is approximately 980 ft amsl (USGS 2021).

Local Pennsylvanian-age bedrock units generally yield low quantities of marginal quality groundwater high in dissolved solids—particularly chlorides, iron, and bicarbonates (Stohr, St. Ivany, and Williams 1981).

Currently, groundwater is not used for drinking water at or near the Site. The City of Kansas City derives approximately 80 percent of its drinking water from the Missouri River and approximately 20 percent from a well field in the Missouri River Aquifer. The potable water passes through a 240-million-gallon-per-day (MGD) treatment plant before servicing customers inside and outside Kansas City (KC Water 2022). No private drinking water wells are within a 1-mile radius of the Site (MoDNR 2022).

Numerous drainageways dissect the bedrock in this area and flow toward the Missouri River. The Site is relatively flat and slopes to the northwest. Shallow groundwater perches seasonally at the top of bedrock or other competent layers in the subsurface. Transient water also may be encountered within fracture zones and along bedding planes, and frequently discharges at bedrock outcrops (Stohr, St. Ivany, and Williams 1981).

The hydrologic gradient at the Site is not known but may be inferred to be consistent with the topographic gradient, which extends primarily in the north-northwest direction. Groundwater depth and direction likely vary with seasonal changes, precipitation, and other unknown hydrogeologic features.

The static water level, measured at the Site during the Quarter 1 sampling event, was approximately 962 to 970 ft amsl.

2.2.3 Hydrology

Most of the Site is flat and slopes to the north-northwest toward U.S. Highway 49 and to the Missouri River beyond, which is approximately 3.4 miles north-northwest of the Site.

2.2.4 Meteorology

Annual average rainfall in the City of Kansas City, Missouri is 37 inches. Average summer highs are approximately 89 degrees Fahrenheit (°F). Average winter lows are approximately 21°F (National Weather Service 2022).

2.3 SITE HISTORY AND LAND USE

The Site has been developed since at least 1896 and has included mixed residential and commercial areas, with Prospect Avenue as a commercial corridor and residential properties west of Prospect Avenue.

A 5,000-square-foot building was present on the 3012 Prospect Avenue property from as early as 1951 through 2017, when it was demolished (SCS 2018). Historically, commercial and retail businesses at that parcel included automobile service facilities, filling stations, and dry cleaners.

2.4 ADJACENT PROPERTY USE

Surrounding properties have been developed since the late 1800s and early 1900s, and historically have hosted residential properties and various commercial businesses, including automobile service facilities, filling stations, printing facilities, and dry cleaners (SCS 2018).

2.5 SUMMARY OF PREVIOUS ASSESSMENTS

Multiple Phase I and Phase II ESAs have occurred at the Site. During Phase I ESA investigations, the parcels comprising the Site were found to have previously hosted retail businesses including automobile service facilities, filling stations, and dry cleaners. Phase II ESA investigations have detected high concentrations in soil, soil gas, and groundwater of petroleum compounds and additives, and chlorinated solvents commonly associated with dry cleaning activities, and their breakdown products.

The Toeroek Team performed the initial (Quarter 1) sampling event for this Phase II ESA from January 11 through 14, 2022 (Toeroek 2022a). Activities included sampling of subsurface soil, soil gas, and groundwater, and installation of three permanent groundwater monitoring wells. Monitoring wells MW-1 and MW-3 were screened from approximately 12 to 22 ft bgs, and MW-2 was screened from approximately 15 to 25 ft bgs, into the top of the shale bedrock layer.

Low to moderate concentrations of VOCs were detected in nearly all soil, soil-gas, and groundwater samples. Concentrations of multiple chemicals of concern (COCs) exceeded Missouri Risk-based Corrective Action (MRBCA) Lowest Default Target Levels (LDTLs) in all media, and EPA Maximum Contaminant Levels (MCLs) in groundwater (Toeroek 2022a). Compounds that exceeded LDTLs were then compared to MRBCA Tier 1 Risk-based Target Levels (RBTLs). The MRBCA RBTLs assumed residential land use and clayey soil.

- Benzene concentration exceeded the MRBCA Tier 1 Risk-based Target Level (RBTL) for indoor air in one soil-gas sample.
- Concentrations of tetrachloroethene (PCE) and trichloroethene (TCE) exceeded their respective EPA MCLs and MRBCA LDTLs in all three groundwater samples.
- Concentrations of PCE also exceeded the respective MRBCA RBTLs in the groundwater sample collected from monitoring well MW-2.

The Toeroek Team conducted the second quarterly (Quarter 2) sampling event on April 19, 2022 (Toeroek 2022b). Activities consisted of sampling the three groundwater monitoring wells previously installed during the Quarter 1 sampling event in January 2022.

All groundwater samples collected at the Site during the Quarter 2 sampling event contained low to moderate concentrations of COCs.

- At monitoring well MW-1, PCE and TCE concentrations exceeded their respective EPA MCLs and MRBCA LDTLs but not RBTLs.
- At monitoring well MW-2, PCE and TCE concentrations exceeded their respective EPA MCLs and MRBCA LDTLs. PCE concentration also exceeded the MRBCA RBTL. 1,1,2-Trichloroethane (TCA) concentration exceeded the MRBCA LDTL but not the RBTL.
- At monitoring well MW-3, PCE and TCE concentrations exceeded their respective EPA MCLs and MRBCA LDTLs. 1,1,2-TCA concentration exceeded the MRBCA LDTL. None exceeded RBTLs.

The Toeroek Team performed the third quarterly (Quarter 3) sampling event on July 8, 2022 (Toeroek 2022c). Activities consisted of sampling the three groundwater monitoring wells previously

installed during the Quarter 1 sampling event in January 2022, as well as soil-gas sampling at eight locations previously sampled during the Quarter 1 sampling event.

All groundwater samples collected at the Site had low to moderate concentrations of COCs. The laboratory detected the following COCs: benzene, *cis*-1,2-dichloroethene (DCE); *trans*-1,2-DCE; isopropylbenzene (cumene); methylene chloride; PCE; and TCE. COC exceedances included:

- At monitoring well MW-1, PCE and TCE concentrations exceeded their respective EPA MCLs and MRBCA LDTLs but not the RBTLs.
- At monitoring well MW-2, PCE and TCE concentrations exceeded their respective EPA MCLs, MRBCA LDTLs, and MRBCA RBTLs.
- At monitoring well MW-3, PCE and TCE concentrations exceeded their respective EPA MCLs and MRBCA LDTLs. *Cis*-1,2-DCE concentration exceeded the respective EPA MCL and MRBCA LDTL, but not the RBTL.

No soil-gas sample yielded any COC at a concentration exceeding the corresponding MRBCA RBTL screening level for indoor air.

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 December 19, 2022, Toeroek Team member Thomas Kaley conducted groundwater sampling of the three groundwater monitoring wells previously installed during the Quarter 1 sampling event. Soil-gas sampling was not required during this sampling event. Field activities were documented in a logbook ([APPENDIX B](#)).

3.1 SCOPE OF THE ASSESSMENT

The Toeroek Team performed environmental sampling to assess the current level of contamination in groundwater at the Site. Sampling was consistent with the Quality Assurance Project Plan (QAPP) approved by EPA on November 4, 2021 (Toeroek 2021).

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 the groundwater sampling was to characterize possible releases to the environment. [Figure 2](#) in [APPENDIX A](#) depicts sampling locations at the Site. Three groundwater samples were collected, one at each of three permanent groundwater monitoring well locations, MW-1, MW-2, and MW-3.

3.1.2 Chemical Testing Plan

Laboratory analyses for chemical parameters were selected based on likely present contaminants associated with current and historical uses of the Site, and results from previous investigations. All groundwater samples were submitted to Pace Analytical (Pace) in Lenexa, Kansas, for VOCs analysis via EPA Method 8260.

3.1.3 Deviations from the QAPP

There were no deviations from the QAPP.

3.2 FIELD ACTIVITIES

Quarter 4 field activities occurred at the Site on December 19, 2022. Groundwater samples were submitted to Pace on December 19, 2022. The following subsections summarize groundwater sample collection activities. Sampling locations are depicted on [Figure 2](#) in [APPENDIX A](#).

3.2.1 Groundwater Sampling

The Toeroek Team collected groundwater samples from three groundwater monitoring wells previously installed during the Quarter 1 sampling event in January 2022 ([APPENDIX A](#), [Figure 2](#)).

Samples were collected after at least three well volumes of water had been purged from each well by use of a bailer. The Toeroek Team measured temperature, pH, specific conductivity, and turbidity using a Horiba U-52 Series water meter. Parameters were monitored during purging until stabilization (no greater than 10 percent change over three consecutive readings). Samples were collected into three 40-milliliter (mL) volatile organic analysis (VOA) vials preserved with hydrochloric acid. Samples were analyzed for VOCs via EPA Method 8260. [Table 1](#) summarizes groundwater levels and samples collected during this Phase II ESA, Quarter 4 sampling event.

TABLE 1
GROUNDWATER LEVEL AND SAMPLE SUMMARY, QUARTER 4
31st & PROSPECT DEVELOPMENT SITE

Location ID(s)	Depth to Groundwater (ft btoc)	Static Water Level (ft amsl)	Analysis Performed
MW-1	13.18	971.66	VOCs via EPA Method 8260
MW-2	15.95	968.10	
MW-3	14.71	968.18	
MW-3-DUP			

Notes:

DUP Duplicate
EPA U.S. Environmental Protection Agency
ft amsl Feet above mean sea level
ft btoc Feet below top of casing
MW Monitoring well
VOC Volatile organic compound

3.2.2 Quality Control Sampling

Field quality control (QC) samples for this investigation included one laboratory-supplied aqueous trip blank and one groundwater field duplicate collected at MW-3. Pace analyzed the QC samples for VOCs.

Analytical data from the trip blank were referenced to determine whether contamination had been introduced in the field and/or during transportation of containers and samples. The field duplicate was collected to determine total method precision. Analytical results from field duplicate samples were used to calculate the relative percent difference (RPD) between results from the duplicate and associated field sample for each reported analyte. The RPDs served informational purposes only; however, the higher concentration of each analyte in the duplicate sample pair was compared to the associated screening level. Analytical accuracy was determined via analysis of laboratory-prepared spikes and duplicates. RPDs are discussed with the applicable data validation reports in [APPENDIX C](#).

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. Groundwater sample results were compared to EPA MCLs (EPA 2022), MRBCA LDTLs, and MRBCA Tier 1 residential RBTLS for Type 3 (clayey) soils. Copies of analytical data packages and data validation reports are in [APPENDIX C](#). [Table 2](#) lists all detections of VOCs in groundwater. [Figure 3](#) in [APPENDIX A](#) shows detections of VOCs exceeding MRBCA screening levels and/or EPA MCLs in groundwater. Tables summarizing results from previous quarterly sampling events are in [APPENDIX D](#).

4.1 GROUNDWATER SAMPLES

Three groundwater samples were collected, one from each of monitoring wells MW-1, MW-2, and MW-3. The sample from MW-3 was collected as a duplicate pair.

The laboratory detected the following COCs in groundwater samples collected from MW-1, MW-2, and MW-3: benzene, *cis*-1,2-DCE; *trans*-1,2-DCE; isopropylbenzene (cumene); methylene chloride; PCE; and TCE. COC exceedances included:

- MW-1: PCE and TCE concentrations exceeded their respective EPA MCLs and MRBCA LDTLs. Neither exceeded the RBTLS.
- MW-2: PCE and TCE concentrations exceeded their respective EPA MCLs and MRBCA LDTLs. PCE also exceeded the corresponding MRBCA RBTL. The reporting limit for benzene in MW-2 was greater than the EPA MCL and MRBCA LDTL; therefore, it is unknown if the benzene concentration exceeded either. The reporting limit for benzene was lower than the RBTL.
- MW-3: PCE, TCE, and *cis*-1,2-DCE concentrations exceeded their respective EPA MCLs and MRBCA LDTLs in both the original and duplicate sample. None exceeded the RBTLS.

The MRBCA RBTL assumed clayey soil and a primary risk from vapor inhalation. No other COC was detected at concentrations exceeding its MRBCA screening level or EPA MCL.

TABLE 2

**DETECTED VOC RESULTS FROM GROUNDWATER SAMPLES, QUARTER 4
31st & PROSPECT DEVELOPMENT SITE**

Sample Location	Benzene	<i>cis</i> -1,2-DCE	<i>trans</i> -1,2-DCE	Cumene	PCE	TCE
	EPA MCL					
	5	70	100	NE	5	5
	MRBCA LDTL (All Soil Types, All Pathways)					
	5	70	100	330	5	5
	MRBCA RBTL (Tier 1, Residential Land Use, Groundwater, Indoor Inhalation of Vapor Encroachment, Clayey)					
	2,880	19,400	17,800	10,600	928	4,490
MW-1	<0.14	1.7	<0.10	<0.097	28.9	8.9
MW-2	<13.6*	<12.9	<10.2	<9.7	6,170	68.6 J
MW-3	2.9 J	102	1.2 J	1.6 J	508	181
MW-3-DUP	3.1 J	101	1.2 J	1.5 J	530	182

Notes:

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

Bold font indicates the concentration exceeds the MCL and/or LDTL.

Red text indicates the concentration exceeds the RBTL.

*Reporting limit is greater than EPA Action Level.

EPA	U.S. Environmental Protection Agency
DCE	Dichloroethene
DUP	Field duplicate
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
LDTL	Lowest Default Target Level, for these compounds all linked to protection for domestic groundwater use pathway
MCL	Maximum Contaminant Level (EPA 2022)
MRBCA	Missouri Risk-based Corrective Action (Missouri Department of Natural Resources 2006)
MW	Monitoring well
NE	Not established
PCE	Tetrachloroethene
RBTL	Risk-based Target Level
TCE	Trichloroethene
VOC	Volatile organic compound

4.2 QUALITY CONTROL SAMPLES

Pace analyzed QC samples for VOCs. The trip blank contained methylene chloride, a common laboratory contaminant, at an estimated concentration between the method detection limit and the reporting limit. However, methylene chloride was not detected in any of the samples, so no results were qualified as a result of this detection.

Calculated RPDs between data from groundwater sample MW-3 and duplicate MW-3-FD indicated good precision. All analytes were within acceptance limits, qualifying those data as 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.

All groundwater samples collected at the Site had low to moderate concentrations of COCs. The laboratory detected the following COCs: benzene, *cis*-1,2-DCE; *trans*-1,2-DCE; cumene; PCE; and TCE. COC exceedances included:

- PCE and TCE concentrations exceeded their respective EPA MCLs and MRBCA LDTLs in all samples.
- *Cis*-1,2-DCE concentration exceeded the corresponding EPA MCL and MRBCA LDTL in samples from MW-3 and MW-3-DUP.
- The reporting limit for benzene in MW-2 was greater than the EPA MCL and LDTL in the sample from MW-2; therefore, it is unknown if benzene concentration exceeded these levels in that sample.
- Only the concentration of PCE in the sample from MW-2 exceeded the RBTL.
- No other COC was detected at a concentration exceeding an MRBCA screening level or EPA MCL.

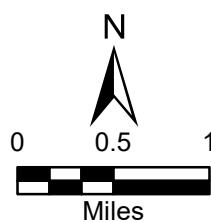
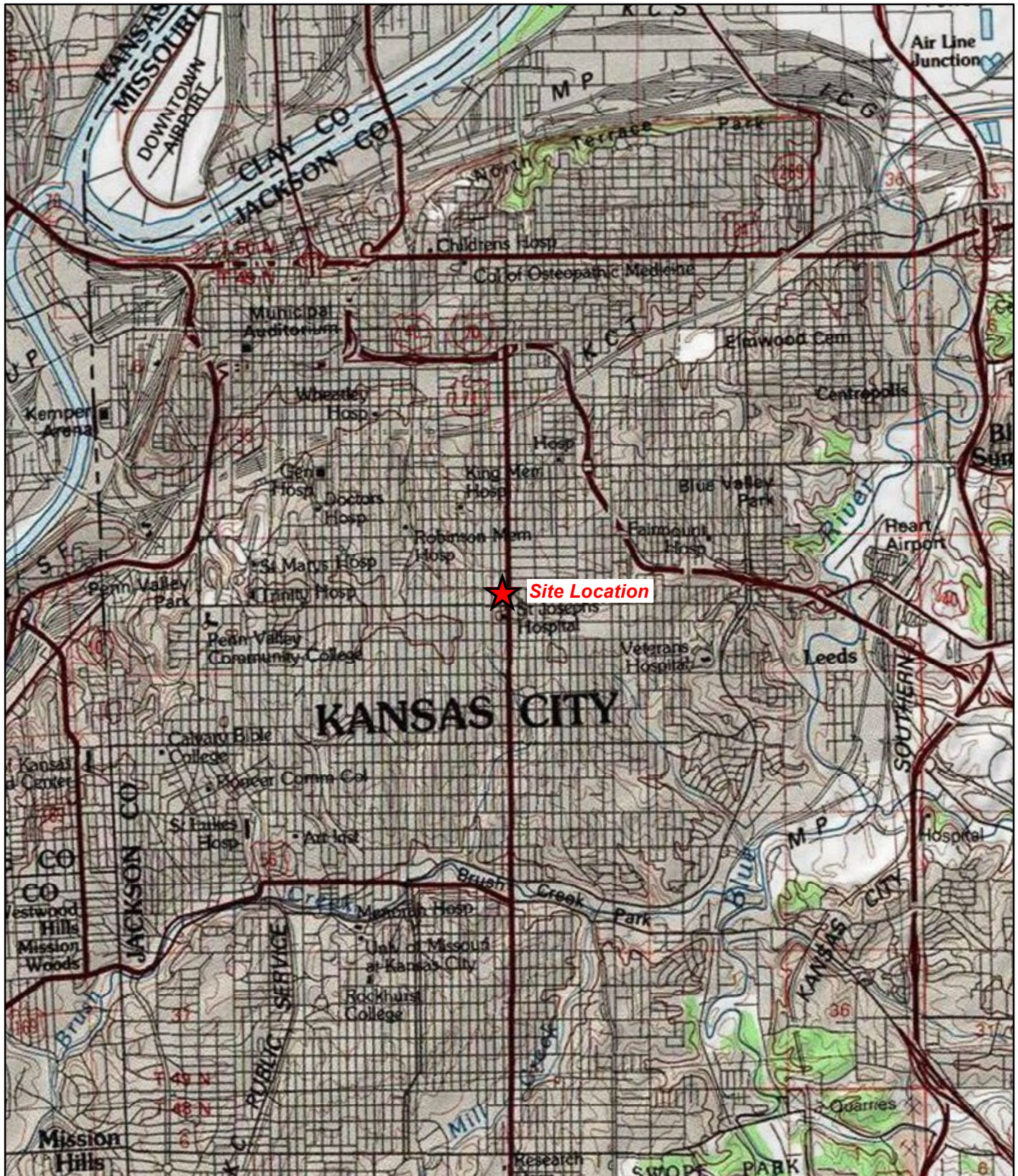
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- U.S. Geological Survey (USGS). 2021. Kansas City, Missouri Quadrangle. USGS 7.5-Minute Topographic Series.

APPENDIX A

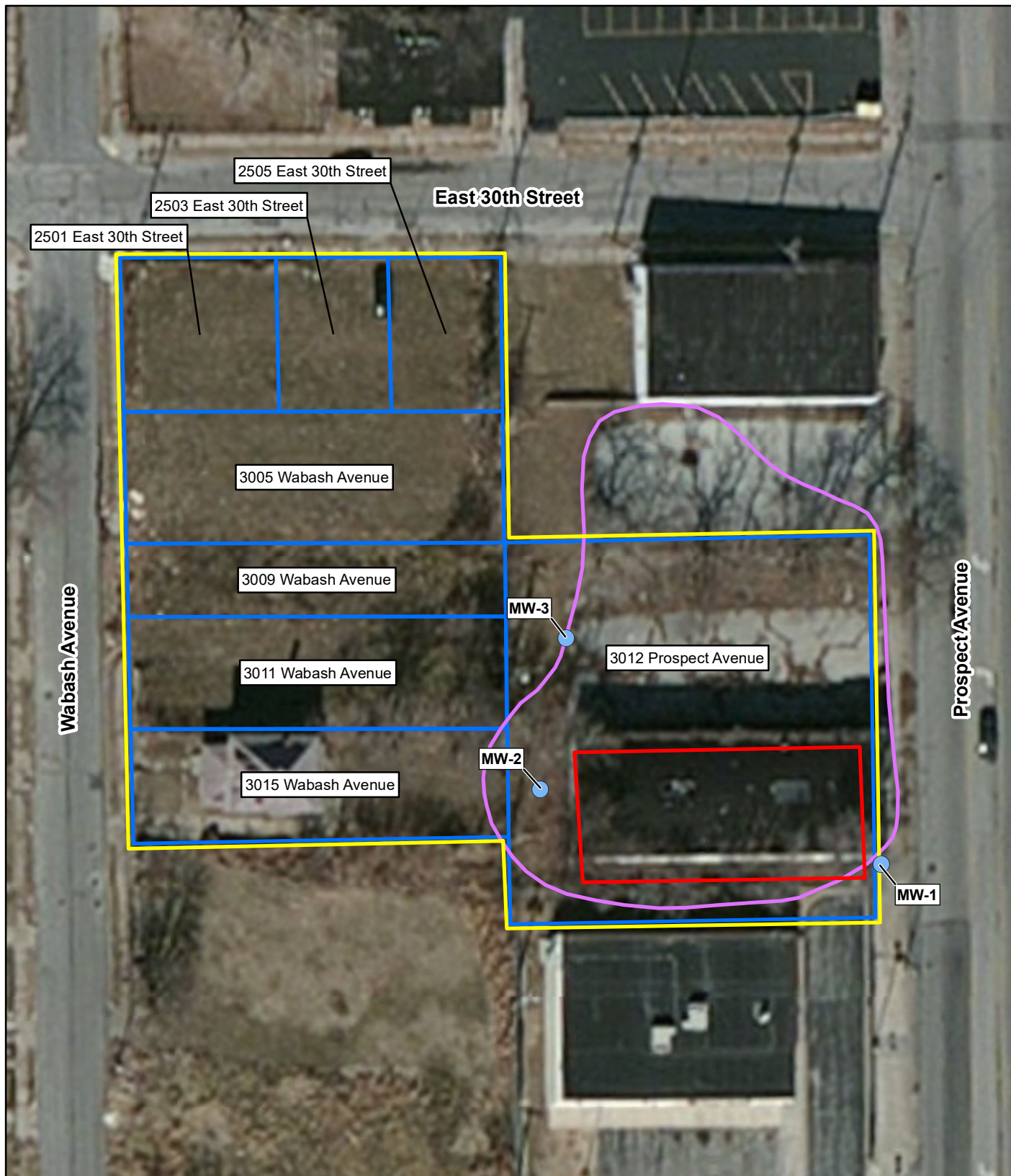
FIGURES



31st & Prospect Development Site
Kansas City, Missouri

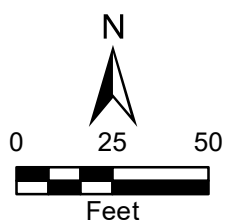
Figure 1
Site Location Map





Legend

- Monitoring well location
- Area of soil and groundwater contamination
- Former dry cleaning facility
- Site boundary
- Parcel



31st & Prospect Development Site
Kansas City, Missouri

Figure 2
Sample Location Map



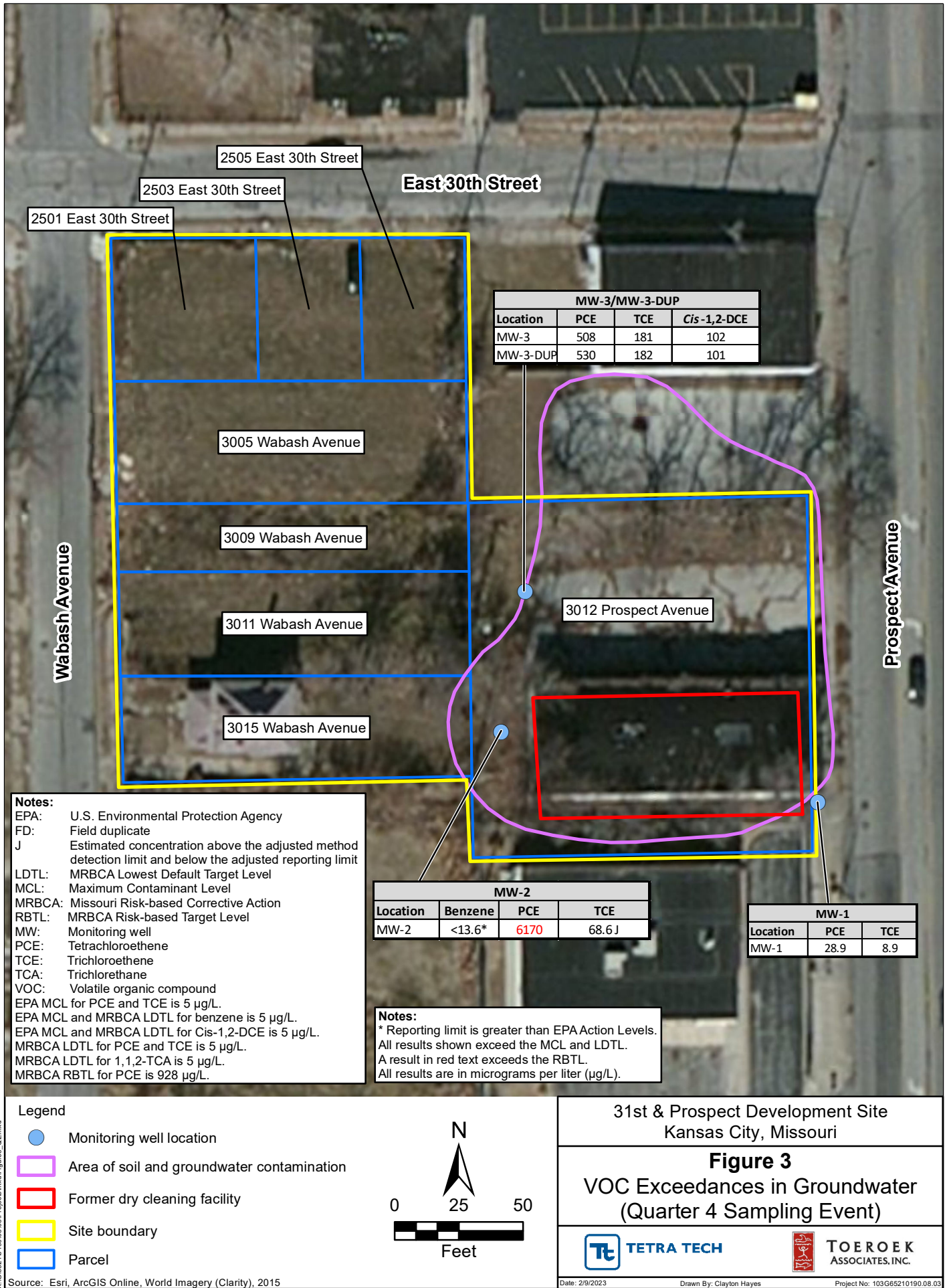
Date: 2/9/2023

Drawn By: Rachel Page

Project No: 103G65210190.08.03

X:\G65210190\08.03\Projects\mxd\Figures\Figure2_Q2.mxd

Source: Esri, ArcGIS Online, World Imagery (Clarity), 2015



APPENDIX B

LOGBOOK

12/19/22

- 1205 T. Kaley arrived onsite
- 1215 Depth to water at MW-3 is
14.71 ft bgs. Total Depth is
20.91 ft. 3 well volumes equal
approximately 3.05 gallons.
- 1235 First Volume:
Temp: 16.4 °F
PH: 6.56
SPCON: 3.06 TURB: 3.73
- Second volume
Temp: 15.3 TURB: 2.14
PH: 6.62
SPCON: 3.01
- Third Volume
Temp: 14.4 TURB: 1.87
PH: 6.60
SPCON: 2.68
- 1250 Collected Sample MW-3 and
(MW-3-DUP)
- 1300 Depth to water at MW-2
15.6 ft. 15.95 ft total is
24.39 ft. 3 well volumes =
4.1 gallons approximately
- 1310 First Volume:
Temp: 13.2 SPCON: 1530
PH: 6.97 TURB: 1.09

12/19/22

Second Volume

Temp: 13.2 TURB: 1.10
PH: 6.95 SPCON: 1651

Third Volume

Temp: 13.1 SPCON: 1515
PH: 6.99 TURB: 1.08

1320 Collected sample MW-2

1330 Depth to water at MW-1
is 13.18 ft. Total depth
is 21.53 ft. Three well
volumes is = 4.08 gallons

First Volume

Temp: 13.6 SPCON: 3.12
PH: 6.33 TURB: 2.21

Second Volume

Temp: 14.3 SPCON: 3.20
PH: 6.36 TURB: 2.24

Third Volume

Temp: 13.1 SPCON: 3.25
PH: 6.41 TURB: 2.34

1350 Collected sample MW-1

1400 Travel from site to KC office

1430 Collected Sample Trip Blank

1435 Finished for the day

12/19/22

Rite in the Rain.

APPENDIX C

ANALYTICAL DATA PACKAGES AND DATA VALIDATION REPORTS

December 29, 2022

Emily Fisher
TETRA TECH EMI
415 Oak
Kansas City, MO 64106

RE: Project: 31ST & PROSPECT
Pace Project No.: 60418378

Dear Emily Fisher:

Enclosed are the analytical results for sample(s) received by the laboratory on December 19, 2022. 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



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water

Arkansas Certification #: 22-031-0

Illinois Certification #: 2000302021-3

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 #: T104704407-21-15

Utah Certification #: KS000212022-12

Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587

Missouri SEKS Micro Certification: 10070

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60418378001	MW-3	Water	12/19/22 12:50	12/19/22 15:02
60418378002	MW-3-DUP	Water	12/19/22 12:50	12/19/22 15:02
60418378003	MW-2	Water	12/19/22 13:20	12/19/22 15:02
60418378004	MW-1	Water	12/19/22 13:50	12/19/22 15:02
60418378005	TRIP BLANK	Water	12/19/22 14:30	12/19/22 15:02

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60418378001	MW-3	EPA 5030B/8260	CSC	69	PASI-K
60418378002	MW-3-DUP	EPA 5030B/8260	CSC	69	PASI-K
60418378003	MW-2	EPA 5030B/8260	CSC	69	PASI-K
60418378004	MW-1	EPA 5030B/8260	CSC	69	PASI-K
60418378005	TRIP BLANK	EPA 5030B/8260	CSC	69	PASI-K

PASI-K = Pace Analytical Services - Kansas City

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Sample: MW-3 **Lab ID: 60418378001** Collected: 12/19/22 12:50 Received: 12/19/22 15:02 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Pace Analytical Services - Kansas City									
Acetone	<12.7	ug/L	50.0	12.7	5		12/21/22 12:28	67-64-1	
Benzene	2.9J	ug/L	5.0	0.68	5		12/21/22 12:28	71-43-2	
Bromobenzene	<0.44	ug/L	5.0	0.44	5		12/21/22 12:28	108-86-1	
Bromochloromethane	<1.0	ug/L	5.0	1.0	5		12/21/22 12:28	74-97-5	
Bromodichloromethane	<0.78	ug/L	5.0	0.78	5		12/21/22 12:28	75-27-4	
Bromoform	<3.4	ug/L	5.0	3.4	5		12/21/22 12:28	75-25-2	
Bromomethane	<2.3	ug/L	25.0	2.3	5		12/21/22 12:28	74-83-9	
2-Butanone (MEK)	<4.9	ug/L	50.0	4.9	5		12/21/22 12:28	78-93-3	
n-Butylbenzene	<0.76	ug/L	5.0	0.76	5		12/21/22 12:28	104-51-8	
sec-Butylbenzene	<0.55	ug/L	5.0	0.55	5		12/21/22 12:28	135-98-8	
tert-Butylbenzene	<0.60	ug/L	5.0	0.60	5		12/21/22 12:28	98-06-6	
Carbon disulfide	<4.9	ug/L	25.0	4.9	5		12/21/22 12:28	75-15-0	
Carbon tetrachloride	<0.86	ug/L	5.0	0.86	5		12/21/22 12:28	56-23-5	
Chlorobenzene	<0.44	ug/L	5.0	0.44	5		12/21/22 12:28	108-90-7	
Chloroethane	<1.9	ug/L	5.0	1.9	5		12/21/22 12:28	75-00-3	
Chloroform	<1.1	ug/L	5.0	1.1	5		12/21/22 12:28	67-66-3	
Chloromethane	<1.4	ug/L	5.0	1.4	5		12/21/22 12:28	74-87-3	
2-Chlorotoluene	<0.54	ug/L	5.0	0.54	5		12/21/22 12:28	95-49-8	
4-Chlorotoluene	<0.74	ug/L	5.0	0.74	5		12/21/22 12:28	106-43-4	
1,2-Dibromo-3-chloropropane	<3.9	ug/L	12.5	3.9	5		12/21/22 12:28	96-12-8	
Dibromochloromethane	<1.5	ug/L	5.0	1.5	5		12/21/22 12:28	124-48-1	
1,2-Dibromoethane (EDB)	<0.98	ug/L	5.0	0.98	5		12/21/22 12:28	106-93-4	
Dibromomethane	<0.54	ug/L	5.0	0.54	5		12/21/22 12:28	74-95-3	
1,2-Dichlorobenzene	<0.62	ug/L	5.0	0.62	5		12/21/22 12:28	95-50-1	
1,3-Dichlorobenzene	<0.66	ug/L	5.0	0.66	5		12/21/22 12:28	541-73-1	
1,4-Dichlorobenzene	<0.66	ug/L	5.0	0.66	5		12/21/22 12:28	106-46-7	
Dichlorodifluoromethane	<1.0	ug/L	5.0	1.0	5		12/21/22 12:28	75-71-8	
1,1-Dichloroethane	<0.61	ug/L	5.0	0.61	5		12/21/22 12:28	75-34-3	
1,2-Dichloroethane	<1.1	ug/L	5.0	1.1	5		12/21/22 12:28	107-06-2	
1,2-Dichloroethene (Total)	103	ug/L	5.0	1.1	5		12/21/22 12:28	540-59-0	
1,1-Dichloroethene	<1.1	ug/L	5.0	1.1	5		12/21/22 12:28	75-35-4	
cis-1,2-Dichloroethene	102	ug/L	5.0	0.64	5		12/21/22 12:28	156-59-2	
trans-1,2-Dichloroethene	1.2J	ug/L	5.0	0.51	5		12/21/22 12:28	156-60-5	
1,2-Dichloropropane	<0.70	ug/L	5.0	0.70	5		12/21/22 12:28	78-87-5	
1,3-Dichloropropane	<0.52	ug/L	5.0	0.52	5		12/21/22 12:28	142-28-9	
2,2-Dichloropropane	<0.81	ug/L	5.0	0.81	5		12/21/22 12:28	594-20-7	
1,1-Dichloropropene	<0.68	ug/L	5.0	0.68	5		12/21/22 12:28	563-58-6	
cis-1,3-Dichloropropene	<0.39	ug/L	5.0	0.39	5		12/21/22 12:28	10061-01-5	
trans-1,3-Dichloropropene	<0.91	ug/L	5.0	0.91	5		12/21/22 12:28	10061-02-6	
Ethylbenzene	<0.60	ug/L	5.0	0.60	5		12/21/22 12:28	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	5		12/21/22 12:28	87-68-3	
2-Hexanone	<5.5	ug/L	50.0	5.5	5		12/21/22 12:28	591-78-6	
Isopropylbenzene (Cumene)	1.6J	ug/L	5.0	0.48	5		12/21/22 12:28	98-82-8	
p-Isopropyltoluene	<0.64	ug/L	5.0	0.64	5		12/21/22 12:28	99-87-6	
Methylene Chloride	<2.0	ug/L	5.0	2.0	5		12/21/22 12:28	75-09-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Sample: MW-3 **Lab ID: 60418378001** Collected: 12/19/22 12:50 Received: 12/19/22 15:02 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Pace Analytical Services - Kansas City									
4-Methyl-2-pentanone (MIBK)	<3.7	ug/L	50.0	3.7	5		12/21/22 12:28	108-10-1	
Methyl-tert-butyl ether	<0.64	ug/L	5.0	0.64	5		12/21/22 12:28	1634-04-4	
Naphthalene	<4.1	ug/L	50.0	4.1	5		12/21/22 12:28	91-20-3	
n-Propylbenzene	<0.60	ug/L	5.0	0.60	5		12/21/22 12:28	103-65-1	
Styrene	<0.62	ug/L	5.0	0.62	5		12/21/22 12:28	100-42-5	
1,1,1,2-Tetrachloroethane	<0.42	ug/L	5.0	0.42	5		12/21/22 12:28	630-20-6	
1,1,2,2-Tetrachloroethane	<0.77	ug/L	5.0	0.77	5		12/21/22 12:28	79-34-5	
Tetrachloroethene	508	ug/L	5.0	1.6	5		12/21/22 12:28	127-18-4	
Toluene	<1.3	ug/L	5.0	1.3	5		12/21/22 12:28	108-88-3	
1,2,3-Trichlorobenzene	<4.6	ug/L	5.0	4.6	5		12/21/22 12:28	87-61-6	
1,2,4-Trichlorobenzene	<3.7	ug/L	5.0	3.7	5		12/21/22 12:28	120-82-1	
1,1,1-Trichloroethane	<0.54	ug/L	5.0	0.54	5		12/21/22 12:28	71-55-6	
1,1,2-Trichloroethane	<0.71	ug/L	5.0	0.71	5		12/21/22 12:28	79-00-5	
Trichloroethene	181	ug/L	5.0	1.0	5		12/21/22 12:28	79-01-6	
Trichlorofluoromethane	<0.82	ug/L	5.0	0.82	5		12/21/22 12:28	75-69-4	
1,2,3-Trichloropropane	<2.0	ug/L	12.5	2.0	5		12/21/22 12:28	96-18-4	
1,2,4-Trimethylbenzene	<1.6	ug/L	5.0	1.6	5		12/21/22 12:28	95-63-6	
1,3,5-Trimethylbenzene	<0.45	ug/L	5.0	0.45	5		12/21/22 12:28	108-67-8	
Vinyl chloride	<0.84	ug/L	5.0	0.84	5		12/21/22 12:28	75-01-4	
Xylene (Total)	<1.4	ug/L	15.0	1.4	5		12/21/22 12:28	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	102	%	80-120		5		12/21/22 12:28	460-00-4	
1,2-Dichlorobenzene-d4 (S)	98	%	80-120		5		12/21/22 12:28	2199-69-1	
Toluene-d8 (S)	101	%	80-120		5		12/21/22 12:28	2037-26-5	
Preservation pH	1.0		0.10		5		12/21/22 12:28		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Sample: MW-3-DUP **Lab ID: 60418378002** Collected: 12/19/22 12:50 Received: 12/19/22 15:02 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Pace Analytical Services - Kansas City									
Acetone	<12.7	ug/L	50.0	12.7	5		12/21/22 12:13	67-64-1	
Benzene	3.1J	ug/L	5.0	0.68	5		12/21/22 12:13	71-43-2	
Bromobenzene	<0.44	ug/L	5.0	0.44	5		12/21/22 12:13	108-86-1	
Bromochloromethane	<1.0	ug/L	5.0	1.0	5		12/21/22 12:13	74-97-5	
Bromodichloromethane	<0.78	ug/L	5.0	0.78	5		12/21/22 12:13	75-27-4	
Bromoform	<3.4	ug/L	5.0	3.4	5		12/21/22 12:13	75-25-2	
Bromomethane	<2.3	ug/L	25.0	2.3	5		12/21/22 12:13	74-83-9	
2-Butanone (MEK)	<4.9	ug/L	50.0	4.9	5		12/21/22 12:13	78-93-3	
n-Butylbenzene	<0.76	ug/L	5.0	0.76	5		12/21/22 12:13	104-51-8	
sec-Butylbenzene	<0.55	ug/L	5.0	0.55	5		12/21/22 12:13	135-98-8	
tert-Butylbenzene	<0.60	ug/L	5.0	0.60	5		12/21/22 12:13	98-06-6	
Carbon disulfide	<4.9	ug/L	25.0	4.9	5		12/21/22 12:13	75-15-0	
Carbon tetrachloride	<0.86	ug/L	5.0	0.86	5		12/21/22 12:13	56-23-5	
Chlorobenzene	<0.44	ug/L	5.0	0.44	5		12/21/22 12:13	108-90-7	
Chloroethane	<1.9	ug/L	5.0	1.9	5		12/21/22 12:13	75-00-3	
Chloroform	<1.1	ug/L	5.0	1.1	5		12/21/22 12:13	67-66-3	
Chloromethane	<1.4	ug/L	5.0	1.4	5		12/21/22 12:13	74-87-3	
2-Chlorotoluene	<0.54	ug/L	5.0	0.54	5		12/21/22 12:13	95-49-8	
4-Chlorotoluene	<0.74	ug/L	5.0	0.74	5		12/21/22 12:13	106-43-4	
1,2-Dibromo-3-chloropropane	<3.9	ug/L	12.5	3.9	5		12/21/22 12:13	96-12-8	
Dibromochloromethane	<1.5	ug/L	5.0	1.5	5		12/21/22 12:13	124-48-1	
1,2-Dibromoethane (EDB)	<0.98	ug/L	5.0	0.98	5		12/21/22 12:13	106-93-4	
Dibromomethane	<0.54	ug/L	5.0	0.54	5		12/21/22 12:13	74-95-3	
1,2-Dichlorobenzene	<0.62	ug/L	5.0	0.62	5		12/21/22 12:13	95-50-1	
1,3-Dichlorobenzene	<0.66	ug/L	5.0	0.66	5		12/21/22 12:13	541-73-1	
1,4-Dichlorobenzene	<0.66	ug/L	5.0	0.66	5		12/21/22 12:13	106-46-7	
Dichlorodifluoromethane	<1.0	ug/L	5.0	1.0	5		12/21/22 12:13	75-71-8	
1,1-Dichloroethane	<0.61	ug/L	5.0	0.61	5		12/21/22 12:13	75-34-3	
1,2-Dichloroethane	<1.1	ug/L	5.0	1.1	5		12/21/22 12:13	107-06-2	
1,2-Dichloroethene (Total)	103	ug/L	5.0	1.1	5		12/21/22 12:13	540-59-0	
1,1-Dichloroethene	<1.1	ug/L	5.0	1.1	5		12/21/22 12:13	75-35-4	
cis-1,2-Dichloroethene	101	ug/L	5.0	0.64	5		12/21/22 12:13	156-59-2	
trans-1,2-Dichloroethene	1.2J	ug/L	5.0	0.51	5		12/21/22 12:13	156-60-5	
1,2-Dichloropropane	<0.70	ug/L	5.0	0.70	5		12/21/22 12:13	78-87-5	
1,3-Dichloropropane	<0.52	ug/L	5.0	0.52	5		12/21/22 12:13	142-28-9	
2,2-Dichloropropane	<0.81	ug/L	5.0	0.81	5		12/21/22 12:13	594-20-7	
1,1-Dichloropropene	<0.68	ug/L	5.0	0.68	5		12/21/22 12:13	563-58-6	
cis-1,3-Dichloropropene	<0.39	ug/L	5.0	0.39	5		12/21/22 12:13	10061-01-5	
trans-1,3-Dichloropropene	<0.91	ug/L	5.0	0.91	5		12/21/22 12:13	10061-02-6	
Ethylbenzene	<0.60	ug/L	5.0	0.60	5		12/21/22 12:13	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	5		12/21/22 12:13	87-68-3	
2-Hexanone	<5.5	ug/L	50.0	5.5	5		12/21/22 12:13	591-78-6	
Isopropylbenzene (Cumene)	1.5J	ug/L	5.0	0.48	5		12/21/22 12:13	98-82-8	
p-Isopropyltoluene	<0.64	ug/L	5.0	0.64	5		12/21/22 12:13	99-87-6	
Methylene Chloride	<2.0	ug/L	5.0	2.0	5		12/21/22 12:13	75-09-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Sample: MW-3-DUP **Lab ID: 60418378002** Collected: 12/19/22 12:50 Received: 12/19/22 15:02 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Pace Analytical Services - Kansas City									
4-Methyl-2-pentanone (MIBK)	<3.7	ug/L	50.0	3.7	5		12/21/22 12:13	108-10-1	
Methyl-tert-butyl ether	<0.64	ug/L	5.0	0.64	5		12/21/22 12:13	1634-04-4	
Naphthalene	<4.1	ug/L	50.0	4.1	5		12/21/22 12:13	91-20-3	
n-Propylbenzene	<0.60	ug/L	5.0	0.60	5		12/21/22 12:13	103-65-1	
Styrene	<0.62	ug/L	5.0	0.62	5		12/21/22 12:13	100-42-5	
1,1,1,2-Tetrachloroethane	<0.42	ug/L	5.0	0.42	5		12/21/22 12:13	630-20-6	
1,1,2,2-Tetrachloroethane	<0.77	ug/L	5.0	0.77	5		12/21/22 12:13	79-34-5	
Tetrachloroethene	530	ug/L	5.0	1.6	5		12/21/22 12:13	127-18-4	
Toluene	<1.3	ug/L	5.0	1.3	5		12/21/22 12:13	108-88-3	
1,2,3-Trichlorobenzene	<4.6	ug/L	5.0	4.6	5		12/21/22 12:13	87-61-6	
1,2,4-Trichlorobenzene	<3.7	ug/L	5.0	3.7	5		12/21/22 12:13	120-82-1	
1,1,1-Trichloroethane	<0.54	ug/L	5.0	0.54	5		12/21/22 12:13	71-55-6	
1,1,2-Trichloroethane	<0.71	ug/L	5.0	0.71	5		12/21/22 12:13	79-00-5	
Trichloroethene	182	ug/L	5.0	1.0	5		12/21/22 12:13	79-01-6	
Trichlorofluoromethane	<0.82	ug/L	5.0	0.82	5		12/21/22 12:13	75-69-4	
1,2,3-Trichloropropane	<2.0	ug/L	12.5	2.0	5		12/21/22 12:13	96-18-4	
1,2,4-Trimethylbenzene	<1.6	ug/L	5.0	1.6	5		12/21/22 12:13	95-63-6	
1,3,5-Trimethylbenzene	<0.45	ug/L	5.0	0.45	5		12/21/22 12:13	108-67-8	
Vinyl chloride	<0.84	ug/L	5.0	0.84	5		12/21/22 12:13	75-01-4	
Xylene (Total)	<1.4	ug/L	15.0	1.4	5		12/21/22 12:13	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	80-120		5		12/21/22 12:13	460-00-4	
1,2-Dichlorobenzene-d4 (S)	101	%	80-120		5		12/21/22 12:13	2199-69-1	
Toluene-d8 (S)	100	%	80-120		5		12/21/22 12:13	2037-26-5	
Preservation pH	1.0		0.10		5		12/21/22 12:13		

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ANALYTICAL RESULTS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Sample: MW-2 Lab ID: 60418378003 Collected: 12/19/22 13:20 Received: 12/19/22 15:02 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260 Pace Analytical Services - Kansas City							
Acetone	<254	ug/L	1000	254	100		12/21/22 11:59	67-64-1	
Benzene	<13.6	ug/L	100	13.6	100		12/21/22 11:59	71-43-2	
Bromobenzene	<8.8	ug/L	100	8.8	100		12/21/22 11:59	108-86-1	
Bromochloromethane	<20.2	ug/L	100	20.2	100		12/21/22 11:59	74-97-5	
Bromodichloromethane	<15.5	ug/L	100	15.5	100		12/21/22 11:59	75-27-4	
Bromoform	<67.6	ug/L	100	67.6	100		12/21/22 11:59	75-25-2	
Bromomethane	<46.0	ug/L	500	46.0	100		12/21/22 11:59	74-83-9	
2-Butanone (MEK)	<97.5	ug/L	1000	97.5	100		12/21/22 11:59	78-93-3	
n-Butylbenzene	<15.3	ug/L	100	15.3	100		12/21/22 11:59	104-51-8	
sec-Butylbenzene	<11.0	ug/L	100	11.0	100		12/21/22 11:59	135-98-8	
tert-Butylbenzene	<12.0	ug/L	100	12.0	100		12/21/22 11:59	98-06-6	
Carbon disulfide	<97.8	ug/L	500	97.8	100		12/21/22 11:59	75-15-0	
Carbon tetrachloride	<17.2	ug/L	100	17.2	100		12/21/22 11:59	56-23-5	
Chlorobenzene	<8.9	ug/L	100	8.9	100		12/21/22 11:59	108-90-7	
Chloroethane	<37.4	ug/L	100	37.4	100		12/21/22 11:59	75-00-3	
Chloroform	<22.0	ug/L	100	22.0	100		12/21/22 11:59	67-66-3	
Chloromethane	<28.3	ug/L	100	28.3	100		12/21/22 11:59	74-87-3	
2-Chlorotoluene	<10.8	ug/L	100	10.8	100		12/21/22 11:59	95-49-8	
4-Chlorotoluene	<14.9	ug/L	100	14.9	100		12/21/22 11:59	106-43-4	
1,2-Dibromo-3-chloropropane	<78.0	ug/L	250	78.0	100		12/21/22 11:59	96-12-8	
Dibromochloromethane	<30.5	ug/L	100	30.5	100		12/21/22 11:59	124-48-1	
1,2-Dibromoethane (EDB)	<19.6	ug/L	100	19.6	100		12/21/22 11:59	106-93-4	
Dibromomethane	<10.9	ug/L	100	10.9	100		12/21/22 11:59	74-95-3	
1,2-Dichlorobenzene	<12.5	ug/L	100	12.5	100		12/21/22 11:59	95-50-1	
1,3-Dichlorobenzene	<13.2	ug/L	100	13.2	100		12/21/22 11:59	541-73-1	
1,4-Dichlorobenzene	<13.3	ug/L	100	13.3	100		12/21/22 11:59	106-46-7	
Dichlorodifluoromethane	<19.9	ug/L	100	19.9	100		12/21/22 11:59	75-71-8	
1,1-Dichloroethane	<12.2	ug/L	100	12.2	100		12/21/22 11:59	75-34-3	
1,2-Dichloroethane	<21.2	ug/L	100	21.2	100		12/21/22 11:59	107-06-2	
1,2-Dichloroethene (Total)	<22.2	ug/L	100	22.2	100		12/21/22 11:59	540-59-0	
1,1-Dichloroethene	<21.9	ug/L	100	21.9	100		12/21/22 11:59	75-35-4	
cis-1,2-Dichloroethene	<12.9	ug/L	100	12.9	100		12/21/22 11:59	156-59-2	
trans-1,2-Dichloroethene	<10.2	ug/L	100	10.2	100		12/21/22 11:59	156-60-5	
1,2-Dichloropropane	<13.9	ug/L	100	13.9	100		12/21/22 11:59	78-87-5	
1,3-Dichloropropane	<10.4	ug/L	100	10.4	100		12/21/22 11:59	142-28-9	
2,2-Dichloropropane	<16.2	ug/L	100	16.2	100		12/21/22 11:59	594-20-7	
1,1-Dichloropropene	<13.5	ug/L	100	13.5	100		12/21/22 11:59	563-58-6	
cis-1,3-Dichloropropene	<7.8	ug/L	100	7.8	100		12/21/22 11:59	10061-01-5	
trans-1,3-Dichloropropene	<18.2	ug/L	100	18.2	100		12/21/22 11:59	10061-02-6	
Ethylbenzene	<12.0	ug/L	100	12.0	100		12/21/22 11:59	100-41-4	
Hexachloro-1,3-butadiene	<41.7	ug/L	100	41.7	100		12/21/22 11:59	87-68-3	
2-Hexanone	<110	ug/L	1000	110	100		12/21/22 11:59	591-78-6	
Isopropylbenzene (Cumene)	<9.7	ug/L	100	9.7	100		12/21/22 11:59	98-82-8	
p-Isopropyltoluene	<12.7	ug/L	100	12.7	100		12/21/22 11:59	99-87-6	
Methylene Chloride	<39.1	ug/L	100	39.1	100		12/21/22 11:59	75-09-2	

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ANALYTICAL RESULTS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Sample: MW-2 **Lab ID:** 60418378003 Collected: 12/19/22 13:20 Received: 12/19/22 15:02 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Pace Analytical Services - Kansas City									
4-Methyl-2-pentanone (MIBK)	<73.6	ug/L	1000	73.6	100		12/21/22 11:59	108-10-1	
Methyl-tert-butyl ether	<12.8	ug/L	100	12.8	100		12/21/22 11:59	1634-04-4	
Naphthalene	<82.2	ug/L	1000	82.2	100		12/21/22 11:59	91-20-3	
n-Propylbenzene	<11.9	ug/L	100	11.9	100		12/21/22 11:59	103-65-1	
Styrene	<12.3	ug/L	100	12.3	100		12/21/22 11:59	100-42-5	
1,1,1,2-Tetrachloroethane	<8.4	ug/L	100	8.4	100		12/21/22 11:59	630-20-6	
1,1,2,2-Tetrachloroethane	<15.4	ug/L	100	15.4	100		12/21/22 11:59	79-34-5	
Tetrachloroethene	6170	ug/L	100	33.0	100		12/21/22 11:59	127-18-4	
Toluene	<25.3	ug/L	100	25.3	100		12/21/22 11:59	108-88-3	
1,2,3-Trichlorobenzene	<92.7	ug/L	100	92.7	100		12/21/22 11:59	87-61-6	
1,2,4-Trichlorobenzene	<73.2	ug/L	100	73.2	100		12/21/22 11:59	120-82-1	
1,1,1-Trichloroethane	<10.9	ug/L	100	10.9	100		12/21/22 11:59	71-55-6	
1,1,2-Trichloroethane	<14.2	ug/L	100	14.2	100		12/21/22 11:59	79-00-5	
Trichloroethene	68.6J	ug/L	100	21.0	100		12/21/22 11:59	79-01-6	
Trichlorofluoromethane	<16.4	ug/L	100	16.4	100		12/21/22 11:59	75-69-4	
1,2,3-Trichloropropane	<40.8	ug/L	250	40.8	100		12/21/22 11:59	96-18-4	
1,2,4-Trimethylbenzene	<32.4	ug/L	100	32.4	100		12/21/22 11:59	95-63-6	
1,3,5-Trimethylbenzene	<9.0	ug/L	100	9.0	100		12/21/22 11:59	108-67-8	
Vinyl chloride	<16.7	ug/L	100	16.7	100		12/21/22 11:59	75-01-4	
Xylene (Total)	<28.2	ug/L	300	28.2	100		12/21/22 11:59	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	80-120		100		12/21/22 11:59	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	80-120		100		12/21/22 11:59	2199-69-1	
Toluene-d8 (S)	100	%	80-120		100		12/21/22 11:59	2037-26-5	
Preservation pH	1.0		0.10		100		12/21/22 11:59		

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ANALYTICAL RESULTS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Sample: MW-1 **Lab ID: 60418378004** Collected: 12/19/22 13:50 Received: 12/19/22 15:02 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Pace Analytical Services - Kansas City									
Acetone	<2.5	ug/L	10.0	2.5	1		12/21/22 11:44	67-64-1	
Benzene	<0.14	ug/L	1.0	0.14	1		12/21/22 11:44	71-43-2	
Bromobenzene	<0.088	ug/L	1.0	0.088	1		12/21/22 11:44	108-86-1	
Bromochloromethane	<0.20	ug/L	1.0	0.20	1		12/21/22 11:44	74-97-5	
Bromodichloromethane	<0.16	ug/L	1.0	0.16	1		12/21/22 11:44	75-27-4	
Bromoform	<0.68	ug/L	1.0	0.68	1		12/21/22 11:44	75-25-2	
Bromomethane	<0.46	ug/L	5.0	0.46	1		12/21/22 11:44	74-83-9	
2-Butanone (MEK)	<0.98	ug/L	10.0	0.98	1		12/21/22 11:44	78-93-3	
n-Butylbenzene	<0.15	ug/L	1.0	0.15	1		12/21/22 11:44	104-51-8	
sec-Butylbenzene	<0.11	ug/L	1.0	0.11	1		12/21/22 11:44	135-98-8	
tert-Butylbenzene	<0.12	ug/L	1.0	0.12	1		12/21/22 11:44	98-06-6	
Carbon disulfide	<0.98	ug/L	5.0	0.98	1		12/21/22 11:44	75-15-0	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		12/21/22 11:44	56-23-5	
Chlorobenzene	<0.089	ug/L	1.0	0.089	1		12/21/22 11:44	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		12/21/22 11:44	75-00-3	
Chloroform	<0.22	ug/L	1.0	0.22	1		12/21/22 11:44	67-66-3	
Chloromethane	<0.28	ug/L	1.0	0.28	1		12/21/22 11:44	74-87-3	
2-Chlorotoluene	<0.11	ug/L	1.0	0.11	1		12/21/22 11:44	95-49-8	
4-Chlorotoluene	<0.15	ug/L	1.0	0.15	1		12/21/22 11:44	106-43-4	
1,2-Dibromo-3-chloropropane	<0.78	ug/L	2.5	0.78	1		12/21/22 11:44	96-12-8	
Dibromochloromethane	<0.30	ug/L	1.0	0.30	1		12/21/22 11:44	124-48-1	
1,2-Dibromoethane (EDB)	<0.20	ug/L	1.0	0.20	1		12/21/22 11:44	106-93-4	
Dibromomethane	<0.11	ug/L	1.0	0.11	1		12/21/22 11:44	74-95-3	
1,2-Dichlorobenzene	<0.12	ug/L	1.0	0.12	1		12/21/22 11:44	95-50-1	
1,3-Dichlorobenzene	<0.13	ug/L	1.0	0.13	1		12/21/22 11:44	541-73-1	
1,4-Dichlorobenzene	<0.13	ug/L	1.0	0.13	1		12/21/22 11:44	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		12/21/22 11:44	75-71-8	
1,1-Dichloroethane	<0.12	ug/L	1.0	0.12	1		12/21/22 11:44	75-34-3	
1,2-Dichloroethane	<0.21	ug/L	1.0	0.21	1		12/21/22 11:44	107-06-2	
1,2-Dichloroethene (Total)	1.7	ug/L	1.0	0.22	1		12/21/22 11:44	540-59-0	
1,1-Dichloroethene	<0.22	ug/L	1.0	0.22	1		12/21/22 11:44	75-35-4	
cis-1,2-Dichloroethene	1.7	ug/L	1.0	0.13	1		12/21/22 11:44	156-59-2	
trans-1,2-Dichloroethene	<0.10	ug/L	1.0	0.10	1		12/21/22 11:44	156-60-5	
1,2-Dichloropropane	<0.14	ug/L	1.0	0.14	1		12/21/22 11:44	78-87-5	
1,3-Dichloropropane	<0.10	ug/L	1.0	0.10	1		12/21/22 11:44	142-28-9	
2,2-Dichloropropane	<0.16	ug/L	1.0	0.16	1		12/21/22 11:44	594-20-7	
1,1-Dichloropropene	<0.14	ug/L	1.0	0.14	1		12/21/22 11:44	563-58-6	
cis-1,3-Dichloropropene	<0.078	ug/L	1.0	0.078	1		12/21/22 11:44	10061-01-5	
trans-1,3-Dichloropropene	<0.18	ug/L	1.0	0.18	1		12/21/22 11:44	10061-02-6	
Ethylbenzene	<0.12	ug/L	1.0	0.12	1		12/21/22 11:44	100-41-4	
Hexachloro-1,3-butadiene	<0.42	ug/L	1.0	0.42	1		12/21/22 11:44	87-68-3	
2-Hexanone	<1.1	ug/L	10.0	1.1	1		12/21/22 11:44	591-78-6	
Isopropylbenzene (Cumene)	<0.097	ug/L	1.0	0.097	1		12/21/22 11:44	98-82-8	
p-Isopropyltoluene	<0.13	ug/L	1.0	0.13	1		12/21/22 11:44	99-87-6	
Methylene Chloride	<0.39	ug/L	1.0	0.39	1		12/21/22 11:44	75-09-2	

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ANALYTICAL RESULTS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Sample: MW-1 **Lab ID:** 60418378004 Collected: 12/19/22 13:50 Received: 12/19/22 15:02 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Pace Analytical Services - Kansas City									
4-Methyl-2-pentanone (MIBK)	<0.74	ug/L	10.0	0.74	1		12/21/22 11:44	108-10-1	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		12/21/22 11:44	1634-04-4	
Naphthalene	<0.82	ug/L	10.0	0.82	1		12/21/22 11:44	91-20-3	
n-Propylbenzene	<0.12	ug/L	1.0	0.12	1		12/21/22 11:44	103-65-1	
Styrene	<0.12	ug/L	1.0	0.12	1		12/21/22 11:44	100-42-5	
1,1,1,2-Tetrachloroethane	<0.084	ug/L	1.0	0.084	1		12/21/22 11:44	630-20-6	
1,1,2,2-Tetrachloroethane	<0.15	ug/L	1.0	0.15	1		12/21/22 11:44	79-34-5	
Tetrachloroethene	28.9	ug/L	1.0	0.33	1		12/21/22 11:44	127-18-4	
Toluene	<0.25	ug/L	1.0	0.25	1		12/21/22 11:44	108-88-3	
1,2,3-Trichlorobenzene	<0.93	ug/L	1.0	0.93	1		12/21/22 11:44	87-61-6	
1,2,4-Trichlorobenzene	<0.73	ug/L	1.0	0.73	1		12/21/22 11:44	120-82-1	
1,1,1-Trichloroethane	<0.11	ug/L	1.0	0.11	1		12/21/22 11:44	71-55-6	
1,1,2-Trichloroethane	<0.14	ug/L	1.0	0.14	1		12/21/22 11:44	79-00-5	
Trichloroethene	8.9	ug/L	1.0	0.21	1		12/21/22 11:44	79-01-6	
Trichlorofluoromethane	<0.16	ug/L	1.0	0.16	1		12/21/22 11:44	75-69-4	
1,2,3-Trichloropropane	<0.41	ug/L	2.5	0.41	1		12/21/22 11:44	96-18-4	
1,2,4-Trimethylbenzene	<0.32	ug/L	1.0	0.32	1		12/21/22 11:44	95-63-6	
1,3,5-Trimethylbenzene	<0.090	ug/L	1.0	0.090	1		12/21/22 11:44	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		12/21/22 11:44	75-01-4	
Xylene (Total)	<0.28	ug/L	3.0	0.28	1		12/21/22 11:44	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	103	%	80-120		1		12/21/22 11:44	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	80-120		1		12/21/22 11:44	2199-69-1	
Toluene-d8 (S)	102	%	80-120		1		12/21/22 11:44	2037-26-5	
Preservation pH	1.0		0.10		1		12/21/22 11:44		

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ANALYTICAL RESULTS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Sample: TRIP BLANK **Lab ID: 60418378005** Collected: 12/19/22 14:30 Received: 12/19/22 15:02 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Pace Analytical Services - Kansas City									
Acetone	<2.5	ug/L	10.0	2.5	1		12/21/22 11:30	67-64-1	
Benzene	<0.14	ug/L	1.0	0.14	1		12/21/22 11:30	71-43-2	
Bromobenzene	<0.088	ug/L	1.0	0.088	1		12/21/22 11:30	108-86-1	
Bromochloromethane	<0.20	ug/L	1.0	0.20	1		12/21/22 11:30	74-97-5	
Bromodichloromethane	<0.16	ug/L	1.0	0.16	1		12/21/22 11:30	75-27-4	
Bromoform	<0.68	ug/L	1.0	0.68	1		12/21/22 11:30	75-25-2	
Bromomethane	<0.46	ug/L	5.0	0.46	1		12/21/22 11:30	74-83-9	
2-Butanone (MEK)	<0.98	ug/L	10.0	0.98	1		12/21/22 11:30	78-93-3	
n-Butylbenzene	<0.15	ug/L	1.0	0.15	1		12/21/22 11:30	104-51-8	
sec-Butylbenzene	<0.11	ug/L	1.0	0.11	1		12/21/22 11:30	135-98-8	
tert-Butylbenzene	<0.12	ug/L	1.0	0.12	1		12/21/22 11:30	98-06-6	
Carbon disulfide	<0.98	ug/L	5.0	0.98	1		12/21/22 11:30	75-15-0	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		12/21/22 11:30	56-23-5	
Chlorobenzene	<0.089	ug/L	1.0	0.089	1		12/21/22 11:30	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		12/21/22 11:30	75-00-3	
Chloroform	<0.22	ug/L	1.0	0.22	1		12/21/22 11:30	67-66-3	
Chloromethane	<0.28	ug/L	1.0	0.28	1		12/21/22 11:30	74-87-3	
2-Chlorotoluene	<0.11	ug/L	1.0	0.11	1		12/21/22 11:30	95-49-8	
4-Chlorotoluene	<0.15	ug/L	1.0	0.15	1		12/21/22 11:30	106-43-4	
1,2-Dibromo-3-chloropropane	<0.78	ug/L	2.5	0.78	1		12/21/22 11:30	96-12-8	
Dibromochloromethane	<0.30	ug/L	1.0	0.30	1		12/21/22 11:30	124-48-1	
1,2-Dibromoethane (EDB)	<0.20	ug/L	1.0	0.20	1		12/21/22 11:30	106-93-4	
Dibromomethane	<0.11	ug/L	1.0	0.11	1		12/21/22 11:30	74-95-3	
1,2-Dichlorobenzene	<0.12	ug/L	1.0	0.12	1		12/21/22 11:30	95-50-1	
1,3-Dichlorobenzene	<0.13	ug/L	1.0	0.13	1		12/21/22 11:30	541-73-1	
1,4-Dichlorobenzene	<0.13	ug/L	1.0	0.13	1		12/21/22 11:30	106-46-7	
Dichlorodifluoromethane	<0.20	ug/L	1.0	0.20	1		12/21/22 11:30	75-71-8	
1,1-Dichloroethane	<0.12	ug/L	1.0	0.12	1		12/21/22 11:30	75-34-3	
1,2-Dichloroethane	<0.21	ug/L	1.0	0.21	1		12/21/22 11:30	107-06-2	
1,2-Dichloroethene (Total)	<0.22	ug/L	1.0	0.22	1		12/21/22 11:30	540-59-0	
1,1-Dichloroethene	<0.22	ug/L	1.0	0.22	1		12/21/22 11:30	75-35-4	
cis-1,2-Dichloroethene	<0.13	ug/L	1.0	0.13	1		12/21/22 11:30	156-59-2	
trans-1,2-Dichloroethene	<0.10	ug/L	1.0	0.10	1		12/21/22 11:30	156-60-5	
1,2-Dichloropropane	<0.14	ug/L	1.0	0.14	1		12/21/22 11:30	78-87-5	
1,3-Dichloropropane	<0.10	ug/L	1.0	0.10	1		12/21/22 11:30	142-28-9	
2,2-Dichloropropane	<0.16	ug/L	1.0	0.16	1		12/21/22 11:30	594-20-7	
1,1-Dichloropropene	<0.14	ug/L	1.0	0.14	1		12/21/22 11:30	563-58-6	
cis-1,3-Dichloropropene	<0.078	ug/L	1.0	0.078	1		12/21/22 11:30	10061-01-5	
trans-1,3-Dichloropropene	<0.18	ug/L	1.0	0.18	1		12/21/22 11:30	10061-02-6	
Ethylbenzene	<0.12	ug/L	1.0	0.12	1		12/21/22 11:30	100-41-4	
Hexachloro-1,3-butadiene	<0.42	ug/L	1.0	0.42	1		12/21/22 11:30	87-68-3	
2-Hexanone	<1.1	ug/L	10.0	1.1	1		12/21/22 11:30	591-78-6	
Isopropylbenzene (Cumene)	<0.097	ug/L	1.0	0.097	1		12/21/22 11:30	98-82-8	
p-Isopropyltoluene	<0.13	ug/L	1.0	0.13	1		12/21/22 11:30	99-87-6	
Methylene Chloride	0.99J	ug/L	1.0	0.39	1		12/21/22 11:30	75-09-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Sample: TRIP BLANK Lab ID: 60418378005 Collected: 12/19/22 14:30 Received: 12/19/22 15:02 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 5030B/8260									
Pace Analytical Services - Kansas City									
4-Methyl-2-pentanone (MIBK)	<0.74	ug/L	10.0	0.74	1		12/21/22 11:30	108-10-1	
Methyl-tert-butyl ether	<0.13	ug/L	1.0	0.13	1		12/21/22 11:30	1634-04-4	
Naphthalene	<0.82	ug/L	10.0	0.82	1		12/21/22 11:30	91-20-3	
n-Propylbenzene	<0.12	ug/L	1.0	0.12	1		12/21/22 11:30	103-65-1	
Styrene	<0.12	ug/L	1.0	0.12	1		12/21/22 11:30	100-42-5	
1,1,1,2-Tetrachloroethane	<0.084	ug/L	1.0	0.084	1		12/21/22 11:30	630-20-6	
1,1,2,2-Tetrachloroethane	<0.15	ug/L	1.0	0.15	1		12/21/22 11:30	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.0	0.33	1		12/21/22 11:30	127-18-4	
Toluene	<0.25	ug/L	1.0	0.25	1		12/21/22 11:30	108-88-3	
1,2,3-Trichlorobenzene	<0.93	ug/L	1.0	0.93	1		12/21/22 11:30	87-61-6	
1,2,4-Trichlorobenzene	<0.73	ug/L	1.0	0.73	1		12/21/22 11:30	120-82-1	
1,1,1-Trichloroethane	<0.11	ug/L	1.0	0.11	1		12/21/22 11:30	71-55-6	
1,1,2-Trichloroethane	<0.14	ug/L	1.0	0.14	1		12/21/22 11:30	79-00-5	
Trichloroethene	<0.21	ug/L	1.0	0.21	1		12/21/22 11:30	79-01-6	
Trichlorofluoromethane	<0.16	ug/L	1.0	0.16	1		12/21/22 11:30	75-69-4	
1,2,3-Trichloropropane	<0.41	ug/L	2.5	0.41	1		12/21/22 11:30	96-18-4	
1,2,4-Trimethylbenzene	<0.32	ug/L	1.0	0.32	1		12/21/22 11:30	95-63-6	
1,3,5-Trimethylbenzene	<0.090	ug/L	1.0	0.090	1		12/21/22 11:30	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		12/21/22 11:30	75-01-4	
Xylene (Total)	<0.28	ug/L	3.0	0.28	1		12/21/22 11:30	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	80-120		1		12/21/22 11:30	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	80-120		1		12/21/22 11:30	2199-69-1	
Toluene-d8 (S)	101	%	80-120		1		12/21/22 11:30	2037-26-5	
Preservation pH	1.0		0.10		1		12/21/22 11:30		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 31ST & PROSPECT

Pace Project No.: 60418378

QC Batch: 824349

Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260

Analysis Description: 8260 MSV Water 10 mL Purge

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60418378001, 60418378002, 60418378003, 60418378004, 60418378005

METHOD BLANK: 3276315

Matrix: Water

Associated Lab Samples: 60418378001, 60418378002, 60418378003, 60418378004, 60418378005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.084	1.0	0.084	12/21/22 11:01	
1,1,1-Trichloroethane	ug/L	<0.11	1.0	0.11	12/21/22 11:01	
1,1,2,2-Tetrachloroethane	ug/L	<0.15	1.0	0.15	12/21/22 11:01	
1,1,2-Trichloroethane	ug/L	<0.14	1.0	0.14	12/21/22 11:01	
1,1-Dichloroethane	ug/L	<0.12	1.0	0.12	12/21/22 11:01	
1,1-Dichloroethene	ug/L	<0.22	1.0	0.22	12/21/22 11:01	
1,1-Dichloropropene	ug/L	<0.14	1.0	0.14	12/21/22 11:01	
1,2,3-Trichlorobenzene	ug/L	<0.93	1.0	0.93	12/21/22 11:01	
1,2,3-Trichloropropane	ug/L	<0.41	2.5	0.41	12/21/22 11:01	
1,2,4-Trichlorobenzene	ug/L	<0.73	1.0	0.73	12/21/22 11:01	
1,2,4-Trimethylbenzene	ug/L	<0.32	1.0	0.32	12/21/22 11:01	
1,2-Dibromo-3-chloropropane	ug/L	<0.78	2.5	0.78	12/21/22 11:01	
1,2-Dibromoethane (EDB)	ug/L	<0.20	1.0	0.20	12/21/22 11:01	
1,2-Dichlorobenzene	ug/L	<0.12	1.0	0.12	12/21/22 11:01	
1,2-Dichloroethane	ug/L	<0.21	1.0	0.21	12/21/22 11:01	
1,2-Dichloroethene (Total)	ug/L	<0.22	1.0	0.22	12/21/22 11:01	
1,2-Dichloropropane	ug/L	<0.14	1.0	0.14	12/21/22 11:01	
1,3,5-Trimethylbenzene	ug/L	<0.090	1.0	0.090	12/21/22 11:01	
1,3-Dichlorobenzene	ug/L	<0.13	1.0	0.13	12/21/22 11:01	
1,3-Dichloropropane	ug/L	<0.10	1.0	0.10	12/21/22 11:01	
1,4-Dichlorobenzene	ug/L	<0.13	1.0	0.13	12/21/22 11:01	
2,2-Dichloropropane	ug/L	<0.16	1.0	0.16	12/21/22 11:01	
2-Butanone (MEK)	ug/L	<0.98	10.0	0.98	12/21/22 11:01	
2-Chlorotoluene	ug/L	<0.11	1.0	0.11	12/21/22 11:01	
2-Hexanone	ug/L	<1.1	10.0	1.1	12/21/22 11:01	
4-Chlorotoluene	ug/L	<0.15	1.0	0.15	12/21/22 11:01	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.74	10.0	0.74	12/21/22 11:01	
Acetone	ug/L	<2.5	10.0	2.5	12/21/22 11:01	
Benzene	ug/L	<0.14	1.0	0.14	12/21/22 11:01	
Bromobenzene	ug/L	<0.088	1.0	0.088	12/21/22 11:01	
Bromochloromethane	ug/L	<0.20	1.0	0.20	12/21/22 11:01	
Bromodichloromethane	ug/L	<0.16	1.0	0.16	12/21/22 11:01	
Bromoform	ug/L	<0.68	1.0	0.68	12/21/22 11:01	
Bromomethane	ug/L	<0.46	5.0	0.46	12/21/22 11:01	
Carbon disulfide	ug/L	<0.98	5.0	0.98	12/21/22 11:01	
Carbon tetrachloride	ug/L	<0.17	1.0	0.17	12/21/22 11:01	
Chlorobenzene	ug/L	<0.089	1.0	0.089	12/21/22 11:01	
Chloroethane	ug/L	<0.37	1.0	0.37	12/21/22 11:01	
Chloroform	ug/L	<0.22	1.0	0.22	12/21/22 11:01	
Chloromethane	ug/L	<0.28	1.0	0.28	12/21/22 11:01	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 31ST & PROSPECT

Pace Project No.: 60418378

METHOD BLANK: 3276315

Matrix: Water

Associated Lab Samples: 60418378001, 60418378002, 60418378003, 60418378004, 60418378005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
cis-1,2-Dichloroethene	ug/L	<0.13	1.0	0.13	12/21/22 11:01	
cis-1,3-Dichloropropene	ug/L	<0.078	1.0	0.078	12/21/22 11:01	
Dibromochloromethane	ug/L	<0.30	1.0	0.30	12/21/22 11:01	
Dibromomethane	ug/L	<0.11	1.0	0.11	12/21/22 11:01	
Dichlorodifluoromethane	ug/L	<0.20	1.0	0.20	12/21/22 11:01	
Ethylbenzene	ug/L	<0.12	1.0	0.12	12/21/22 11:01	
Hexachloro-1,3-butadiene	ug/L	<0.42	1.0	0.42	12/21/22 11:01	
Isopropylbenzene (Cumene)	ug/L	<0.097	1.0	0.097	12/21/22 11:01	
Methyl-tert-butyl ether	ug/L	<0.13	1.0	0.13	12/21/22 11:01	
Methylene Chloride	ug/L	<0.39	1.0	0.39	12/21/22 11:01	
n-Butylbenzene	ug/L	<0.15	1.0	0.15	12/21/22 11:01	
n-Propylbenzene	ug/L	<0.12	1.0	0.12	12/21/22 11:01	
Naphthalene	ug/L	<0.82	10.0	0.82	12/21/22 11:01	
p-Isopropyltoluene	ug/L	<0.13	1.0	0.13	12/21/22 11:01	
sec-Butylbenzene	ug/L	<0.11	1.0	0.11	12/21/22 11:01	
Styrene	ug/L	<0.12	1.0	0.12	12/21/22 11:01	
tert-Butylbenzene	ug/L	<0.12	1.0	0.12	12/21/22 11:01	
Tetrachloroethene	ug/L	<0.33	1.0	0.33	12/21/22 11:01	
Toluene	ug/L	<0.25	1.0	0.25	12/21/22 11:01	
trans-1,2-Dichloroethene	ug/L	<0.10	1.0	0.10	12/21/22 11:01	
trans-1,3-Dichloropropene	ug/L	<0.18	1.0	0.18	12/21/22 11:01	
Trichloroethene	ug/L	<0.21	1.0	0.21	12/21/22 11:01	
Trichlorofluoromethane	ug/L	<0.16	1.0	0.16	12/21/22 11:01	
Vinyl chloride	ug/L	<0.17	1.0	0.17	12/21/22 11:01	
Xylene (Total)	ug/L	<0.28	3.0	0.28	12/21/22 11:01	
1,2-Dichlorobenzene-d4 (S)	%	98	80-120		12/21/22 11:01	
4-Bromofluorobenzene (S)	%	99	80-120		12/21/22 11:01	
Toluene-d8 (S)	%	100	80-120		12/21/22 11:01	

LABORATORY CONTROL SAMPLE: 3276316

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	19.9	99	80-120	
1,1,1-Trichloroethane	ug/L	20	20.3	102	75-125	
1,1,2,2-Tetrachloroethane	ug/L	20	19.7	99	80-120	
1,1,2-Trichloroethane	ug/L	20	18.3	92	80-120	
1,1-Dichloroethane	ug/L	20	19.4	97	75-120	
1,1-Dichloroethene	ug/L	20	18.7	94	75-120	
1,1-Dichloropropene	ug/L	20	19.8	99	75-125	
1,2,3-Trichlorobenzene	ug/L	20	19.6	98	60-135	
1,2,3-Trichloropropane	ug/L	20	18.0	90	75-120	
1,2,4-Trichlorobenzene	ug/L	20	20.5	102	65-130	
1,2,4-Trimethylbenzene	ug/L	20	20.2	101	80-120	
1,2-Dibromo-3-chloropropane	ug/L	20	16.8	84	65-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 31ST & PROSPECT

Pace Project No.: 60418378

LABORATORY CONTROL SAMPLE: 3276316

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dibromoethane (EDB)	ug/L	20	18.5	92	80-120	
1,2-Dichlorobenzene	ug/L	20	20.4	102	80-120	
1,2-Dichloroethane	ug/L	20	19.1	95	80-120	
1,2-Dichloroethene (Total)	ug/L	40	37.5	94	80-120	
1,2-Dichloropropane	ug/L	20	19.2	96	80-120	
1,3,5-Trimethylbenzene	ug/L	20	20.6	103	75-120	
1,3-Dichlorobenzene	ug/L	20	20.5	103	80-120	
1,3-Dichloropropane	ug/L	20	19.1	96	80-120	
1,4-Dichlorobenzene	ug/L	20	20.7	103	80-120	
2,2-Dichloropropane	ug/L	20	24.5	122	55-135	
2-Butanone (MEK)	ug/L	100	83.5	83	50-155	
2-Chlorotoluene	ug/L	20	19.9	99	80-120	
2-Hexanone	ug/L	100	88.1	88	55-145	
4-Chlorotoluene	ug/L	20	20.3	102	80-120	
4-Methyl-2-pentanone (MIBK)	ug/L	100	77.7	78	70-130	
Acetone	ug/L	100	86.9	87	35-160	
Benzene	ug/L	20	19.5	97	80-120	
Bromobenzene	ug/L	20	19.9	100	80-120	
Bromochloromethane	ug/L	20	19.0	95	80-120	
Bromodichloromethane	ug/L	20	20.0	100	80-120	
Bromoform	ug/L	20	18.4	92	60-130	
Bromomethane	ug/L	20	18.2	91	50-140	
Carbon disulfide	ug/L	20	18.8	94	75-125	
Carbon tetrachloride	ug/L	20	21.4	107	70-130	
Chlorobenzene	ug/L	20	20.2	101	80-120	
Chloroethane	ug/L	20	19.6	98	70-130	
Chloroform	ug/L	20	19.9	99	75-120	
Chloromethane	ug/L	20	21.4	107	45-145	
cis-1,2-Dichloroethene	ug/L	20	19.3	97	80-120	
cis-1,3-Dichloropropene	ug/L	20	20.2	101	75-125	
Dibromochloromethane	ug/L	20	18.7	94	75-125	
Dibromomethane	ug/L	20	19.3	96	80-120	
Dichlorodifluoromethane	ug/L	20	27.9	140	25-180	
Ethylbenzene	ug/L	20	20.3	101	80-120	
Hexachloro-1,3-butadiene	ug/L	20	22.9	115	65-125	
Isopropylbenzene (Cumene)	ug/L	20	20.9	105	80-125	
Methyl-tert-butyl ether	ug/L	20	17.0	85	75-125	
Methylene Chloride	ug/L	20	17.4	87	70-140	
n-Butylbenzene	ug/L	20	22.8	114	70-125	
n-Propylbenzene	ug/L	20	20.2	101	80-120	
Naphthalene	ug/L	20	17.4	87	60-140	
p-Isopropyltoluene	ug/L	20	21.1	106	80-120	
sec-Butylbenzene	ug/L	20	22.1	111	80-120	
Styrene	ug/L	20	23.6	118	80-120	
tert-Butylbenzene	ug/L	20	21.0	105	80-120	
Tetrachloroethene	ug/L	20	20.1	101	80-125	
Toluene	ug/L	20	19.7	98	80-120	

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QUALITY CONTROL DATA

Project: 31ST & PROSPECT

Pace Project No.: 60418378

LABORATORY CONTROL SAMPLE: 3276316

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,2-Dichloroethene	ug/L	20	18.2	91	80-120	
trans-1,3-Dichloropropene	ug/L	20	20.4	102	75-125	
Trichloroethene	ug/L	20	18.1	90	80-125	
Trichlorofluoromethane	ug/L	20	20.4	102	75-125	
Vinyl chloride	ug/L	20	20.8	104	65-140	
Xylene (Total)	ug/L	60	59.3	99	80-120	
1,2-Dichlorobenzene-d4 (S)	%			100	80-120	
4-Bromofluorobenzene (S)	%			102	80-120	
Toluene-d8 (S)	%			101	80-120	

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QUALIFIERS

Project: 31ST & PROSPECT

Pace Project No.: 60418378

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 31ST & PROSPECT

Pace Project No.: 60418378

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60418378001	MW-3	EPA 5030B/8260	824349		
60418378002	MW-3-DUP	EPA 5030B/8260	824349		
60418378003	MW-2	EPA 5030B/8260	824349		
60418378004	MW-1	EPA 5030B/8260	824349		
60418378005	TRIP BLANK	EPA 5030B/8260	824349		

REPORT OF LABORATORY ANALYSIS

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WO#: 60418378



DC#_Title: ENV-FRM-LENE-0009_Sam

Revision: 2

Effective Date: 01/12/2022

Issued By: Lenexa

Client Name: Tetra Tech EMICourier: 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: T296 Type of Ice: We Blue ☐ None ☐Cooler Temperature (°C): As-read 3.2 Corr. Factor -0.1 Corrected 3.1Date and initials of person examining contents: 12/20/22

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Sample labels match COC: Date / time / ID / analyses	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Samples contain multiple phases? Matrix: <u>WT</u>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT#:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Potassium iodide test strip turns blue/purple? (Preserve)	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Trip Blank present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Samples from USDA Regulated Area: State:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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: _____

Client: Tetra Tech EMI

Profile # 970

Site: 31st prospect

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	5																													
2																														
3																														
4																														
5		2	trip blank																											
6																														
7																														
8																														
9																														
10																														
11																														
12																														

Container Codes

Glass		Plastic		Misc.	
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NaOH plastic
DG9H	40mL HCl amber vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic
DG9S	40mL H2SO4 amber vial	AG0U	100mL unres amber glass	BP1Z	1L NaOH, Zn Acetate
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NaOH plastic
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate
				BP4U	125mL unpreserved plastic
				BP4N	125mL HNO3 plastic
				BP4S	125mL H2SO4 plastic
				WPDU	16oz unpreserved plastic

Work Order Number:

60418378

DATA VERIFICATION REPORT

Prepared by: Ellen McEntee
Date: January 11, 2023
Site Name/Task Order: 31st & Prospect Site / 103G65210190
Laboratory: Pace Analytical Services – Lenexa, Kansas

Data Package or SDG Number: 60418378

Sample Designations/Names:

MW-1 MW-2 MW-3 MW-3-DUP TRIP BLANK

Matrices: Groundwater
Analytical Parameters: Volatile Organic Compounds (VOCs) by EPA Method 5030B/8260

Data Package Element	Usable	Rejected	NA	Description of Affected Data (note specific samples and analytical parameters affected)
Chain-of-custody	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Data package completeness	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sample preservation, storage, and holding times	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Method and field blank contamination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Methylene chloride was detected in the Trip Blank at a concentration above the method detection limit (MDL), but below the reporting limit (RL). The associated results for methylene chloride are non-detect; therefore, results were not qualified.</p> <p>The method blank was non-detect for all analytes.</p>
Surrogate spikes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Matrix spikes/matrix spike duplicates (MS/MSD)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Matrix spikes were not performed with these samples.
Laboratory control samples/Laboratory control sample duplicates (LCS/LCSD)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other (field duplicates)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Data Package Element	Usable	Rejected	NA	Description of Affected Data (note specific samples and analytical parameters affected)
Summary Data is usable as reported by the laboratory. Results reported between the MDL and the RL were qualified as estimated (flagged J) by the laboratory.				

APPENDIX D
HISTORICAL ANALYTICAL RESULTS

QUARTER 1, JANUARY 2022

DETECTED VOC RESULTS FROM SOIL SAMPLES
31st & PROSPECT DEVELOPMENT SITE

Sample Location	Acetone	Benzene	2-Butanone (Methyl Ethyl Ketone)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Chloroform	cis-1,2-DCE	1,2-Dichloropropane	Ethylbenzene	Hexachloro-1,3- Butadiene
	MRBCA LDTL (All Soil Types, All Pathways, GWP and INH*)										
	4,200	561	7,300	41,600	35,200	34,1000	76.6*	521	42	39,900	NE
	MRBCA RBTL (Tier 1, Residential Land Use, Surface Soil, Outdoor Inhalation, Clayey)										
	487,000,000	3,500,000	772,000,000	21,600,000	21,600,000	21,600,000	783,000	5,410,000	618,000	157,000,000	NE
SB-1-(7-8)	<17.6	1.3 J	<3.7	<0.71	<0.79	<0.96	<0.54	<0.47	<1.1	<5.0	<0.92
SB-1-(7-8)-FD	<18.2	2.1 J	<3.8	<0.73	<0.82	<0.99	<0.55	<0.48	<1.1	<0.52	<0.96
SB-1-(21-22)	<18.5	0.57 J	<3.9	<0.74	<0.84	<1.0	<0.56	<0.49	<1.1	<0.53	<0.97
SB-2-(19-20)	<16.8	<0.51	<3.5	<0.67	<0.76	<0.91	<0.51	0.55 J	<1.0	<0.48	<0.88
SB-2-(24-25)	<15.7	0.86 J	<3.3	<0.63	<0.71	<0.85	<0.48	<0.42	<0.95	<0.45	<0.82
SB-3-(4-5)	<17.6	<0.54	<3.7	<0.71	<0.79	<0.96	<0.54	<0.47	<1.1	<0.50	<0.93
SB-3-(21-22)	<17.2	2.0 J	<3.6	18.4	12.6	1.2 J	5.4	1.3 J	<1.0	0.50 J	<0.90
SB-4-(11.5-12.5)	<16.2	<0.49	<3.4	<0.65	<0.73	<0.89	<0.49	113	<0.98	<0.46	<0.85
SB-4-(23-24)	<15.4	<0.47	<3.2	<0.62	<0.70	<0.84	<0.47	0.59 J	<0.93 J-	<0.44	<0.81
SB-5-(4-5)	56.5	0.59 J	7.1 J	<0.70	<0.79	<0.95	<0.53	<0.47	<1.1	<0.50	<0.92
SB-5-(19-20)	<21.6	<0.66	<4.6	<0.87	<0.98	<1.2	<0.66	<0.58	<1.3	<0.62	<1.1
SB-6-(19-20)	<16.2	<0.49	<3.4	<0.65	<0.73	<0.88	<0.49	<0.43	<0.98	<0.46	<0.85
SB-6-(22.5-23.5)	<15.8	<0.48	<3.3	<0.64	<0.72	<0.86	<0.48	<0.42	<0.96	<0.45	<0.83
SB-7-(13.5-14.5)	<17.0	0.55 J	<3.6	<0.77	<0.93	<0.67	<0.52	14.2	<1.0	<0.48	<0.89
SB-7-(19-20)	318 J	<23.2	<126	<50.4	47.3 J	<35.1	<22.2	62.0 J	<20.6	<28.8	85.7 J
SB-8-(19-20)	<1,400	66,300	<737	5,820	1,730	<205	383 J	<151	1,430 J	14,400	<411
SB-8-(23-24)	<251	17,300	521 J	<52.6	<43.9	<36.7	<23.2	<26.9	<21.5	144 J	<73.4
Sample Location	2-Hexanone	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Naphthalene	n-Propylbenzene	PCE	Toluene	TCE	1,2,4-TMB	1,3,5-TMB	Xylene
	MRBCA LDTL (All Soil Types, All Pathways, GWP and INH*)										
	NE	10,500*	NE	325	10,300	141	29,100	141	3,930	882	24,700*
	MRBCA RBTL (Tier 1, Residential Land Use, Surface Soil, Outdoor Inhalation, Clayey)										
	NE	61,800,000	NE	465,000	21,600,000	3,000,000	757,000,000	9,010,000	927,000	223,000,000,000	15,700,000
SB-1-(7-8)	<2.7	<6.2	<7.5	8.3 J	<0.87	<0.45	<0.38	<0.79	<0.73	<0.68	<1.2
SB-1-(7-8)-FD	<2.8	<0.64	<0.77	<0.92	<0.90	<0.46	<0.40	<0.81	<0.75	<0.70	<1.3
SB-1-(21-22)	<2.8	<0.65	<0.79	<0.94	<0.92	0.95 J	0.64 J	<0.83	<0.77	<0.72	<1.3
SB-2-(19-20)	<2.6	<0.59	<0.71	<0.85	<0.83	626	<0.36	4.6 J	<0.83	<0.65	<1.2
SB-2-(24-25)	<2.4	<0.55	<0.67	<0.79	<0.78	1,140	0.59 J	2.5 J	<0.65	<0.61	<1.1
SB-3-(4-5)	<2.7	<0.62	<0.75	<0389	<0.87	<0.45	<0.38	<0.79	<0.73	<0.68	<1.2
SB-3-(21-22)	84.7	32	<0.73	5.7 J	14.4	1.3 J	0.59 J	<0.77	<0.71	1.0 J	<1.2
SB-4-(11.5-12.5)	<2.5	<0.57	<0.69	<0.82	<0.81	10,100	<0.35	3,640	<0.67	<0.63	<1.1
SB-4-(23-24)	<2.4	<0.54	<0.66	<0.78	<0.76	3.7 J	0.61 J	2.8 J	<0.76	<0.60	<1.1
SB-5-(4-5)	<2.7	<0.62	<0.74	<0.89	<0.87	7.3	0.74 J	<0.78	<0.72	<0.68	<1.2
SB-5-(19-20)	<3.3	<0.76	<0.92	<1.1	<1.1	8.4	<0.47	<0.97	<0.89	<0.84	<1.5
SB-6-(19-20)	<2.5	<0.57	<0.69	<0.82	<0.80	<0.41	<0.35	<0.72	<0.67	<0.63	<1.1
SB-6-(22.5-23.5)	<2.4	<0.56	<0.67	<0.80	<0.79	<0.40	<0.34	<0.71	<0.66	<0.61	<1.1
SB-7-(13.5-14.5)	<2.6	<0.60	<0.72	<0.86	<0.84	2,470	<0.37	961	<0.70	<0.66	<1.2
SB-7-(19-20)	<107	39.0 J	<41.5	299 J	<40.3	371 J+	<25.4	149 J	40.3 J	<39.4	<90.7

QUARTER 1, JANUARY 2022

DETECTED VOC RESULTS FROM SOIL SAMPLES
31ST & PROSPECT DEVELOPMENT SITE

Sample Location	Acetone	Benzene	2-Butanone (Methyl Ethyl Ketone)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Chloroform	cis-1,2-DCE	1,2-Dichloropropane	Ethylbenzene	Hexachloro-1,3- Butadiene
	MRBCA LDTL (All Soil Types, All Pathways, GWP and INH*)										
	4,200	561	7,300	41,600	35,200	34,1000	76.6*	521	42	39,900	NE
	MRBCA RBTL (Tier 1, Residential Land Use, Surface Soil, Outdoor Inhalation, Clayey)										
	487,000,000	3,500,000	772,000,000	21,600,000	21,600,000	21,600,000	783,000	5,410,000	618,000	157,000,000	NE
SB-8-(19-20)	<628	4,030	4,210	14,000	6,200	<145	50,400	214 J	42,600	13,700	103,000
SB-8-(23-24)	<112	<40.3	<43.4	387 J	<42.1	<25.0	211 J	<25.3	277 J	94.1 J	800

Notes:

All values are in micrograms per kilogram (µg/kg).

Bold font indicates the concentration exceeds the reporting limit.

Italic font indicates the concentration exceeds the LDTL.

*The LDTL is based on the indoor inhalation pathway.

DCE	Dichloroethene
GWP	Protection of domestic groundwater use pathway
INH	Indoor inhalation pathway
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
J+	Estimated concentration with a possible high bias
J-	Estimated concentration with a possible low bias
LDTL	Lowest Default Target Level
MRBCA	Missouri Risk-based Corrective Action
NE	Not established
PCE	Tetrachloroethene
RBTL	Risk-based Target Level
SB	Soil boring
TCE	Trichloroethene
TMB	Trimethylbenzene
VOC	Volatile organic compound

QUARTER 1, JANUARY 2022

DETECTED VOC RESULTS FROM SOIL-GAS SAMPLES
31st & PROSPECT DEVELOPMENT SITE

Sample Location	1,1-DCE	1,2,4-TMB	1,2-DCA	1,3,5-TMB	1,3-Butadiene	2-Butanone (Methyl Ethyl Ketone)	2-Propanol	4-Ethyltoluene	4-Methyl-2-pentanone	Acetone
	MRBCA RBTL (Tier 1, Residential Land Use, Soil Vapor, Indoor Inhalation, Clayey)									
	14,500,000	521,000	NE	521,000	NE	352,000,000	NE	NE	NE	14,300,000
SG-1-(7-7.5)	<1.98	6.69	<0.809	<2.46	0.819	4.07	<2.46	<2.46	4.87	34
SG-2-(4.5-5)	<79.3	<98.3	<32.4	<98.3	<17.7	<118	<98.3	<98.3	<164	<95
SG-3-(4.5-5)	<1.98	4.72	<0.809	<2.46	1.59	13.8	<2.46	<2.46	<2.46	98.6
SG-4-(7.5-8)	<79.3	<98.3	<32.4	<98.3	<17.7	<118	<98.3	<98.3	<164	<95
SG-4-(22.5-23)	<79.3	<98.3	<32.4	<98.3	<17.7	<118	<98.3	<98.3	<164	132
SG-5-(4.5-5)	<1.98	<2.46	<0.809	<2.46	1.13	<2.95	<2.46	<2.46	<2.46	32.8
SG-5-(16.5-17)	<1.98	<2.46	<0.809	<2.46	11.4	24.6	<2.46	<2.46	<4.10	102
SG-6-(4.5-5)	<1.98	<2.46	<0.809	<2.46	0.553	28.3	2.53	<2.46	<4.10	76
SG-7-(4.5-5)	<1.98	5.01	<0.809	<2.46	1.77	5.31	<2.46	<2.46	<4.10	56.6
SG-7-(16.5-17)	80.9	<98.3	<32.4	<98.3	<17.7	<118	<98.3	<98.3	<164	<95
SG-8-(4.5-5)	<1.98	6.64	15.8	2.61	1.04	6.02	12.8	2.65	<4.10	51.5
Sample Location	Benzene	Benzyl Chloride	Carbon Disulfide	Chloromethane	cis-1,2-DCE	Isopropylbenzene (Cumene)	Cyclohexane	Ethylbenzene	Heptane	Hexane
	MRBCA RBTL (Tier 1, Residential Land Use, Soil Vapor, Indoor Inhalation, Clayey)									
	1,430	NE	21,400	722	7,010	34,800,000	NE	646,000	NE	NE
SG-1-(7-7.5)	4.4	<5.18	2.83	<1.03	<1.98	<2.46	3.30	9.25	8.93	5.32
SG-2-(4.5-5)	<63.9	<207	<62.3	<41.3	<79.3	<98.3	<68.8	<86.8	<82	<70.5
SG-3-(4.5-5)	3.10	<5.18	20.9	<1.03	<1.98	<2.46	42.5	5.56	39.6	65.6
SG-4-(7.5-8)	<63.9	<207	<62.3	<41.3	1,210	<98.3	<68.8	<86.8	<82	<70.5
SG-4-(22.5-23)	<63.9	<207	<62.3	<41.3	2,740	<98.3	<68.8	<86.8	<82	<70.5
SG-5-(4.5-5)	2.91	<5.18	<1.56	<1.03	<1.98	<2.46	<1.72	<2.17	3.65	1.90
SG-5-(16.5-17)	12.7	<5.18	7.32	2.73	5.79	<2.46	3.41	3.39	11.4	12.3
SG-6-(4.5-5)	3.96	<5.18	<1.56	<1.03	<1.98	<2.46	<1.72	3.60	5.82	2.57
SG-7-(4.5-5)	4.82	<5.18	4.05	<1.03	3.81	<2.46	19.7	7.47	21.4	18.5
SG-7-(16.5-17)	731	358	<62.3	<41.3	3,790	108	72,100	109	86,300	226,000
SG-8-(4.5-5)	2,610	<5.18	3.64	<1.03	7.45	<2.46	30.3	15.5	333	202
Sample Location	m,p-Xylene	o-Xylene	Propene	Styrene	PCE	Tetrahydrofuran	Toluene	TCE	Vinyl Chloride	
	MRBCA RBTL (Tier 1, Residential Land Use, Soil Vapor, Indoor Inhalation, Clayey)									
	9,450,000	9,450,000	NE	91,700,000	648,000	1,430,000	367,000,000	1,770,000	300,000	
SG-1-(7-7.5)	26.6	9.99	11.2	3.54	8	<1.47	439	<1.07	<1.28	
SG-2-(4.5-5)	<86.8	<86.8	<34.4	<85.2	86,800	<59	<75.4	843	<51.1	
SG-3-(4.5-5)	19.3	6.51	29.7	<2.13	10.4	<1.47	410	1.77	<1.28	
SG-4-(7.5-8)	<86.8	<86.8	<34.4	<85.2	84,600	<59	297	31,300	<51.1	
SG-4-(22.5-23)	<86.8	<86.8	<34.4	<85.2	61,200	<59	1,040	50,400	<51.1	
SG-5-(4.5-5)	6.51	<2.17	18.8	<2.13	17.5	<1.47	180	<1.07	<1.28	
SG-5-(16.5-17)	10.7	3.13	291	<2.13	37.7	4.01	441	7.36	<1.28	
SG-6-(4.5-5)	11.5	3.52	26.1	<2.13	17.8	2.57	395	1.40	<1.28	
SG-7-(4.5-5)	24.3	8.12	15.9	<2.13	96.9	<1.47	550	52.3	<1.28	
SG-7-(16.5-17)	<86.8	<86.8	467	<85.2	13,600	166	983	19,900	317	
SG-8-(4.5-5)	52.5	15	13.4	<2.13	10.2	<1.47	708	11.6	<1.28	

QUARTER 1, JANUARY 2022

DETECTED VOC RESULTS FROM SOIL-GAS SAMPLES
31st & PROSPECT DEVELOPMENT SITE

Notes:

All values are in micrograms per cubic meter (µg/m³).

Bold font indicates the concentration exceeds the reporting limit.
Italic font indicates the concentration exceeds the RBTL.

DCE	Dichloroethene
DCA	Dichloroethane
MRBCA	Missouri Risk-based Corrective Action
NE	Not established
PCE	Tetrachloroethene
RBTL	Risk-based Target Level
SG	Soil-gas
TCE	Trichloroethene
TMB	Trimethylbenzene
VOC	Volatile organic compound

QUARTER 1, JANUARY 2022

DETECTED VOC RESULTS FROM GROUNDWATER SAMPLES
31st & PROSPECT DEVELOPMENT SITE

Sample Location	Acetone	Benzene	2-Butanone (Methyl Ethyl Ketone)	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Chloroform	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE
	EPA MCL									
	NE	5	NE	NE	NE	NE	NE	7	70	100
	MRBCA LDTL (All Soil Types, All Pathways, DWG)									
	2,970	5	3,640	98.9	106	103	80	07	70	100
	MRBCA RBTL (Tier 1, Residential Land Use, Groundwater, Indoor Inhalation of Vapor Encroachment, Clayey)									
	101,000,000	2,880	153,000,000	24,300	17,100	26,200	814	14,700	19,400	17,800
MW-1	<2.5	<0.14	<0.98	<0.15	<0.11	<0.12	<0.22	<0.22	4.5	0.28 J
MW-1-FD	<2.5	<0.14	<0.98	<0.15	<0.11	<0.12	<0.22	<0.22	4.4	<0.18
MW-2	<2.5	0.38 J	<0.98	<0.15	<0.11	<0.12	0.36 J	0.37 J	19.8	0.83 J
MW-3	19.1 J+	2.4	<0.98	1.3	1.5	0.25 J	0.76 J	<0.22	20.6	0.49 J
Sample Location	1,2-Dichloropropane	Isopropylbenzene (Cumene)	n-Propylbenzene	PCE	Toluene	1,1,2-TCA	TCE	1,3,5-TMB	Vinyl Chloride	Xylene
	EPA MCL									
	5	NE	NE	5	1000	NE	5	NE	2	10,000
	MRBCA LDTL (All Soil Types, All Pathways, DWG)									
	5	330	115	5	1,000	5	5	7.05	2	10,000
	MRBCA RBTL (Tier 1, Residential Land Use, Groundwater, Indoor Inhalation of Vapor Encroachment, Clayey)									
	3,040	10,600	30,300	928	1,440,000	6,150	4,490	1,550	2.06	33,500
MW-1	<0.14	<0.097	<0.12	143	<0.25	<0.14	57	<0.090	<0.17	<0.28
MW-1-FD	<0.14	<0.097	<0.12	159	<0.25	<0.14	55.6	<0.090	<0.17	<0.28
MW-2	0.55 J	<0.097	<0.12	3,290	1.2	0.50 J	106	<0.090	0.41 J	0.38 J
MW-3	<0.14	5.7	1.8	166	0.87 J	0.45 J	47.9	0.12 J	0.85 J	0.43 J

Notes:

All values are in micrograms per liter (µg/L).
Bold font indicates the concentration exceeds the reporting limit.
Italic font indicates the concentration exceeds the MCL and LDTL.
Red text indicates the concentration exceeds the RBTL.

EPA	U.S. Environmental Protection Agency
DCE	Dichloroethene
DWG	Protection for domestic groundwater use pathway
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
J+	Estimated concentration with a possible high bias
LDTL	Lowest Default Target Level
MCL	Maximum Contaminant Level
MRBCA	Missouri Risk-based Corrective Action
MW	Monitoring well
NE	Not established
PCE	Tetrachloroethene
RBTL	Risk-based Target Level
TCE	Trichloroethene
TCA	Trichloroethane
TMB	Trimethylbenzene
VOC	Volatile organic compound

QUARTER 2, APRIL 2022

DETECTED VOC RESULTS FROM GROUNDWATER SAMPLES, QUARTER 2
31st & PROSPECT DEVELOPMENT SITE

Sample Location	Acetone	Benzene	Chloroform	<i>cis</i> -1,2-DCE	<i>trans</i> -1,2-DCE	1,2-Dichloropropane	Isopropylbenzene (Cumene)
	EPA MCL						
	NE	5	NE	70	100	5	NE
	MRBCA LDTL (All Soil Types, All Pathways, DWG)						
	2,970	5	80	70	100	5	330
	MRBCA RBTL (Tier 1, Residential Land Use, Groundwater, Indoor Inhalation of Vapor Encroachment, Clayey)						
	101,000,000	2,880	814	19,400	17,800	3,040	10,600
MW-1	<12.7	<0.68	<1.1	2.4 J	<5.1	<0.70	<0.48
MW-2	148 J	<6.8	<11.0	34.0 J	<5.1	<7.0	<4.8
MW-3	<12.7	2.5 J	<1.1	63.8	0.69 J	<0.70	<0.48
MW-3-FD	<2.5	2.5	0.34 J	66.5	0.91 J	0.38 J	0.31 J
Sample Location	Methylene Chloride	4-Methyl-2-Pentanone (MIBK)	PCE	1,1,2-TCA	TCE	1,3,5-TMB	
	EPA MCL						
	NE	NE	5	NE	5	NE	
	MRBCA LDTL (All Soil Types, All Pathways, DWG)						
	0.005	NE	5	5	5	7.05	
	MRBCA RBTL (Tier 1, Residential Land Use, Groundwater, Indoor Inhalation of Vapor Encroachment, Clayey)						
	68.3	NE	928	19,400	928	19,400	
MW-1	10	4.2 J+	83.5	<0.71	22	<0.45	
MW-2	96.7	<36.8	7,760	1,060	349	<4.5	
MW-3	10.3 J	<3.7	539	18.1 J	138	<0.45	
MW-3-FD	>0.39 J	<0.74	505	0.17 J	151	0.42 J	

Notes:

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

Bold font indicates the concentration exceeds the reporting limit.
Italic font indicates the concentration exceeds the MCL and/or LDTL.
Red text indicates the concentration exceeds the RBTL.

EPA	U.S. Environmental Protection Agency
DCE	Dichloroethene
DWG	Protection for domestic groundwater use pathway
FD	Field duplicate
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
J+	Estimated, possibly biased high
LDTL	Lowest Default Target Level
MCL	Maximum Contaminant Level
MRBCA	Missouri Risk-based Corrective Action
MW	Monitoring well
NE	Not established
PCE	Tetrachloroethene
RBTL	Risk-based Target Level
TCE	Trichloroethene
TCA	Trichloroethane
TMB	Trimethylbenzene
VOC	Volatile organic compound

QUARTER 3, JULY 2022

DETECTED VOC RESULTS FROM GROUNDWATER SAMPLES, QUARTER 3
31st & PROSPECT DEVELOPMENT SITE

Sample Location	Benzene	<i>cis</i> -1,2-DCE	<i>trans</i> -1,2-DCE	Cumene	PCE	TCE
	EPA MCL					
	5	70	100	NE	5	5
	MRBCA LDTL (All Soil Types, All Pathways, DWG)					
	5	70	100	330	5	5
	MRBCA RBTL (Tier 1, Residential Land Use, Groundwater, Indoor Inhalation of Vapor Encroachment, Clayey)					
	2,880	19,400	17,800	10,600	928	4,490
MW-1	<0.14	1.9	0.12 J	<0.097	61.9	17.7
MW-2	<13.6	45.9 J	<10.2	<9.7	7,670	123
MW-2-FD	<13.6	<12.9	<10.2	<9.7	8,290	86.8 J
MW-3	3.2 J	107	1.4 J	1.3 J	528	198

Notes:

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

Bold font indicates the concentration exceeds the reporting limit.
Italic font indicates the concentration exceeds the MCL and/or LDTL.
Red text indicates the concentration exceeds the RBTL.

- EPA
- U.S. Environmental Protection Agency
- DCE
- Dichloroethene
- DWG
- Protection for domestic groundwater use pathway
- FD
- Field duplicate
- J
- Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- LDTL
- Lowest Default Target Level
- MCL
- Maximum Contaminant Level
- MRBCA
- Missouri Risk-based Corrective Action
- MW
- Monitoring well
- NE
- Not established
- PCE
- Tetrachloroethene
- RBTL
- Risk-based Target Level
- TCE
- Trichloroethene
- VOC
- Volatile organic compound

QUARTER 3, JULY 2022

DETECTED VOC RESULTS FROM SOIL-GAS SAMPLES, QUARTER 3
31st & PROSPECT DEVELOPMENT SITE

Sample Location	1,1-DCE	1,2,4-TMB	1,3,5-TMB	2-Butanone (Methyl Ethyl Ketone)	2-Propanol	4-Ethyltoluene	4-Methyl-2-pentanone	Acetone	Benzene
	MRBCA RBTL (Tier 1, Residential Land Use, Soil Vapor, Indoor Inhalation, Clayey)								
	14,500,000	521,000	521,000	352,000,000	NE	NE	NE	159,000,000	618,000
SG-1-(4.5-5)	<0.28	26.9	7.4	44.2	16.4	8.5	7.2	576	5.6
SG-1-(15.5-16)	0.37 J	14.7	4.7	51.0	7.4	5.3	4.3 J	334	21.6
SG-2-(4.5-5)	<0.21	4.6	2.6	43.3	8.7	2.3 J	1.8 J	157	11.2 J+
SG-2-(23.5-24)	11.9	7.1	2.8	90.8	3.9 J	4.3	5.2 J	162	41.7
SG-3-(4.5-5)	<0.21	9.3	4.4	34.2	13.4	3.8	1.9 J	456	12.9
SG-3-(21.5-22)	19.6	15.9	5.4	149	6.7	6.0	5.4 J	416	30.5
SG-4-(7.5-8)	<7.4	24.0 J	<13.0	<20.8	<22.8	<21.1	<14.3	385	<5.1
SG-4-(11.5-12)	5.1	11.6	3.7	9.2	6.4	6.5	2.2 J	234	5.8
SG-5-(4.5-5)	<0.20	25.1	7.0	60.5	11.6	7.3	1.9 J	5.0	3.2
SG-5-(16.5-17)	0.63 J	15.8	5.2	64.0	5.6	5.8	3.2 J	302	18.0
SG-6-(4.5-5)	<0.41	51.2	14.4	27.6	24.7	12.6	2.6 J	645	4.1
SG-6-(22.5-23)	<0.27	16.4	6.6	99.9	5.4	6.3	<0.52	339	15.2
SG-7-(2-2.5)	<0.19	15.6	5.0	40.9	45.2	4.8	<0.45	723	57.9
SG-7-(16-16.5)	<6.4	<16.5	<13.5	<21.6	<23.7	<21.9	<14.9	227 J	98.4
SG-8-(4.5-5)	<6.0	29.1 J	<12.5	<20.1	<22.0	<20.4	<13.9	592	41.4
SG-8-(19.5-20)	17.3	41.1	17.3	<0.78	13.0	16.3	<0.54	381	12,800
Sample Location	Carbon Disulfide	Carbon Tetrachloride	Chloromethane	Cis-1,2-DCE	Trans-1,2-DCE	Cyclohexane	Ethylbenzene	n-Heptane	n-Hexane
	MRBCA RBTL (Tier 1, Residential Land Use, Soil Vapor, Indoor Inhalation, Clayey)								
	43,900,000	239,000	14,100,000	3,100,000	6,450,000	NE	88,200,000	22,800,000	22,800,000
SG-1-(4.5-5)	3.9	<0.47	2.3	<0.33	1.8	4.8	12.9	<0.30	13.6
SG-1-(15.5-16)	36.5	<0.47	3.8	<0.33	0.39 J	9.0	12.7	24.4	34.2
SG-2-(4.5-5)	11.3	<0.43	0.60 J	49.7 J+	2.2	37.3 J+	3.0	94.1	47.6 J+
SG-2-(23.5-24)	29.6	<0.47	2.7	33.2 J+	2.5	23.0	8.8	<0.30	53.6
SG-3-(4.5-5)	48.3	<0.42	0.83	71.6	10.6	56.9	4.7	66.3	53.6
SG-3-(21.5-22)	64.5	<0.49	2.4	1,110	36.1	<0.39	11.5	<0.32	90.3
SG-4-(7.5-8)	<5.8	<12.5	<3.8	48.5	<7.5	<9.9	<13.8	<8.1	<8.5
SG-4-(11.5-12)	3.2	<0.43	0.95	526	2.2	1.8 J	7.4	<0.28	4.5
SG-5-(4.5-5)	1.6	<0.41	0.31 J	0.42 J	<0.25	4.5	9.4	6.9	4.8
SG-5-(16.5-17)	11.7	<0.43	1.1	7.6	<0.26	20.4	10.5	<0.28	27.6
SG-6-(4.5-5)	1.2 J	<0.83	1.1 J	<0.58	<0.50	2.3 J	19.2	4.3	3.5
SG-6-(22.5-23)	10.7	<0.45	1.8	424	3.8	443	10.1	235	97.1
SG-7-(2-2.5)	16.7	0.51 J	1.2	8.5	0.65 J	52.5	5.4	26.6	39.7
SG-7-(16-16.5)	20.5 J	<13.0	<4.0	590	<7.8	64.5 J	<14.4	55.6	76.1
SG-8-(4.5-5)	<5.6	<12.1	40.0	<8.4	<7.3	<9.5	14.4 J	20.4 J	24.6 J
SG-8-(19.5-20)	9.8	<0.47	4.6	2,300	17.6	426 J	105	458 J	816 J
Sample Location	m,p-Xylene	o-Xylene	Propylene	Styrene	PCE	Tetrahydrofuran	Toluene	TCE	Vinyl Chloride
	MRBCA RBTL (Tier 1, Residential Land Use, Soil Vapor, Indoor Inhalation, Clayey)								
	9,450,000	9,450,000	NE	91,700,000	648,000	1,430,000	367,000,000	1,770,000	300,000
SG-1-(4.5-5)	34.3	13.4	26.1	3.3	253	3.5	74.1	0.61 J	<0.15
SG-1-(15.5-16)	27.6	11.2	567 J	3.8	2.8	2.5	132	0.73 J	0.45
SG-2-(4.5-5)	8.5	3.8	67.9	4.3	127,000	<0.28	16.2	4,220	<0.13

QUARTER 3, JULY 2022

DETECTED VOC RESULTS FROM SOIL-GAS SAMPLES, QUARTER 3
31st & PROSPECT DEVELOPMENT SITE

Sample Location	1,1-DCE	1,2,4-TMB	1,3,5-TMB	2-Butanone (Methyl Ethyl Ketone)	2-Propanol	4-Ethyltoluene	4-Methyl-2-pentanone	Acetone	Benzene
	MRBCA RBTL (Tier 1, Residential Land Use, Soil Vapor, Indoor Inhalation, Clayey)								
	14,500,000	521,000	521,000	352,000,000	NE	NE	NE	159,000,000	618,000
SG-2-(23.5-24)	18.7	7.7	419 J	4.4	97,800	<0.30	87.5	913	1.8
SG-3-(4.5-5)	13.0	6.1	71.8	1.6	3,060	<0.27	22.0	186	<0.13
SG-3-(21.5-22)	26.8	10.7	628	3.4	11,500	<0.32	83.4	6,600	19.2
SG-4-(7.5-8)	46.3 J	16.7 J	30.1 J	<17.2	1,260	<8.0	136	1,070	<3.9
SG-4-(11.5-12)	19.8	7.7	25.0	3.3	15,100	<0.28	80.0	12,200	2.5
SG-5-(4.5-5)	26.3	10.9	38.2	2.3	2,900	2.5	36.9	6.7	<0.13
SG-5-(16.5-17)	28.0	11.5	215	4.0	1,700	<0.28	96.6	103	0.22 J
SG-6-(4.5-5)	70.1	27.3	40.6	4.5	287	4.5	123	3.4	<0.26
SG-6-(22.5-23)	24.2	9.8	313	3.7	3,010	<0.29	59.8	831	2.7
SG-7-(2-2.5)	15.8	5.8	66.1	5.1	1,280	3.8	25.2	99.0	<0.12
SG-7-(16-16.5)	<29.9	<12.6	104	<17.9	32,800	21.0 J	94.2	4,540	<4.0
SG-8-(4.5-5)	48.1 J	19.6 J	110	<16.6	1,560	<7.8	118	85.8	<3.7
SG-8-(19.5-20)	90.1	9.1	133 J	2.9	19,400	<0.30	95.1	16,700	6.2

Notes:

All values are in micrograms per cubic meter (µg/m³).

Bold font indicates concentration exceeds the reporting limit.

- DCEDichloroethene
- JEstimated concentration above the method detection limit and below the reporting limit
- MRBCAMissouri Risk-based Corrective Action
- NENot established
- PCETetrachloroethene
- RBTLRisk-based Target Level
- SGSoil-gas
- TCETrichloroethene
- TMBTrimethylbenzene
- VOCVolatile organic compound