



GILES

ENGINEERING ASSOCIATES, INC.

GEOTECHNICAL, ENVIRONMENTAL & CONSTRUCTION MATERIALS CONSULTANTS

- Dallas, TX
- Los Angeles, CA
- Manassas, VA
- Milwaukee, WI

June 3, 2024

Wisconsin Department of Natural Resources
Remediation and Redevelopment Department
101 S. Webster St.
P.O. Box 7921
Madison, WI 53707-7921

Attention: Mr. Andy Alles, Hydrogeologist
Remediation and Redevelopment Program

Subject: Petition for No Action Required
Former Dry Cleaners (Westfield Way)
690 Westfield Way
Pewaukee, Wisconsin 53072
WDNR BRRTS #: 02-68-594047; WDNR FID #: 268708440
Giles Project No. 1E-2308010

Dear Mr. Alles:

Giles Engineering Associates (Giles), on behalf of The Kenmore Group, LLC herein petitions the Wisconsin Department of Natural Resources (WDNR) for a “No Action Required” (NAR) determination for the former dry cleaners property (Site) located at 690 Westfield Way in the Village of Pewaukee, Wisconsin (Figure 1). It is The Kenmore Group, LLC’s intention to sell the property as soon as possible.

Background

Currently, the Site is occupied by a multi-tenant commercial building with surface parking (Figure 2). One tenant space was formerly occupied by a dry cleaner, Unit B. The dry-cleaning machine was removed in the Summer 2023, from the facility and the last know use was about the time COVID arrived within the United States in March 2020 in which the business dissolved.

Review of the GRS Group | Corteq (GRS) Phase II ESA, dated October 18, 2016 (Attachment 1), has shown that the Site was investigated for its historical use as a dry cleaner. The Limited Phase II ESA included the sampling of soil, groundwater, and analysis for volatile organic compounds (VOCs), and more specifically chlorinated VOCs (CVOCs).

Seven years had passed since the GRS investigation and the property was put up for sale which prompted the seller to retain Giles to resample the Site. The GRS investigation did not include sub-slab vapor sampling for VOCs. Giles completed the additional sampling for VOCs in soil, groundwater, and sub-slab vapor between August 2023 and November 2023.



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Area Geology/Hydrogeology

The bedrock beneath the general Site area consists of the Silurian-age Waukesha Formation and the depth to bedrock throughout much of the Pewaukee area is 50 feet (ft) to 100 ft.¹ Bedrock was not encountered in the borings completed by GRS (to 25 ft bgs), or the borings completed by Giles (up to 20 ft bgs). The unconsolidated deposits in the area primarily consist of sandy till ground moraine of the Holy Hill Formation.²

Groundwater was noted at a depth of approximately 15 ft bgs and is inferred to flow to the north, towards the Pewaukee River.

Limited Phase II Investigation(s)

Due to the environmental concern posed by the former operation of the property as a dry cleaner, GRS collected soil and groundwater samples and submitted them to a State-certified laboratory for VOC analysis in accordance with U.S. Environmental Protection Agency (EPA) methods. Giles was retained to collect soil, groundwater, and soil vapor samples for CVOCs prior to the property being sold.

GRS Group | Corteq (Attachment 1) and Giles Reports.

Summary of Investigation Results

GRS Group | Corteq (CVOCs); dated October 16, 2016

Soil

No soil CVOCs were detected exceeding the Wisconsin Administrative Code (WAC) Ch. Natural Resource (NR) 720 protection to groundwater or non-industrial/industrial direct contact exposure pathways.

Groundwater

No groundwater CVOCs were detected exceeding the WAC Ch. NR 140 groundwater standards.

Giles Engineering Associates, Inc. (VOCs); dated January 11, 2024

Soil

Tetrachloroethene (PCE) was detected in shallow interval samples (2 to 4 ft bgs) in 3 of the soil borings on site (B-2, B-4, and B-7). The detections were in exceedance of the WAC NR 720 Residual Contaminant Level (RCL) for soil to groundwater exposure pathway. No other CVOCs were detected.

1 Massie-Ferch, K.M.; Peters, R.M, 2004, Preliminary Bedrock Geology of Waukesha County, Wisconsin (15A), Wisconsin Geological and Natural History Survey Open-File Report 2004-15A.

2 Clayton, Lee, 2001, Pleistocene Geology of Waukesha County, Wisconsin (Plate 1), Wisconsin Geological and Natural History Survey Bulletin 99.



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Groundwater

Three groundwater samples were collected over 5 months from the monitoring well installed on Site (MW-1). PCE was detected in exceedance of its WAC Ch. NR 140 Preventative Action Limit (PAL) in all three samples and was not exceeding the Enforcement Standard (ES).

Sub-Slab Vapor

One sub-slab vapor sample was collected near the former dry-cleaning machine. There were no detections exceeding the WDNRs Vapor Risk Screening Level (VRSL) for residential, small commercial, and large commercial/industrial properties.

Request for No Action Required

The following conditions are known to be pertinent to this request:

1. At the initial time of the GRS study, there was no soil or groundwater CVOCs impacts on Site. GRS concluded that no WDNR reporting obligations were required due to the conditions.
2. The Giles Engineering Associates, Inc. study showed that PCE was detected at concentrations exceeding its WAC Ch. NR 720 soil to groundwater pathway in the shallow interval from 2 to 4 ft bgs. In addition, PCE was detected at concentrations exceeding the WAC Ch. NR 140 PAL in three groundwater samples collected over a 5-month period.
3. A remedial excavation took place in April 2024 in which 76 tons of CVOC soil was properly disposed of at Waste Management's Orchard Ridge facility. A Remedial Action Report is being submitted congruently with this No Action Required petition request. The excavation removed the PCE contaminated soil from the interval of 0 to 4 ft bgs outside the rear service door of the former dry cleaner. Two (C-2 and C-3) of the three soil confirmation samples were less than the laboratory's method detection limits; however, at one location (C-3) PCE was exceeding the soil to groundwater exposure pathway. A nearby soil boring (B-2A) demonstrated that soil cleaned up with depth as a 6 to 8 foot depth soil samples was less than the laboratory's method detection limits. The excavation was backfilled with clean stone and capped with asphalt. With this removal of soil, it is Giles' opinion that the source of PCE contamination has been removed from the Site to the extent practical.
4. There were no CVOCs detected exceeding VRSLs in the sub-slab vapor sample collected on Site. The dry-cleaning machine was removed in the Summer 2023, from the facility and the last known use was about the time COVID arrived within the United States in March 2020, in which the business dissolved. The sub-slab vapor sample results demonstrate that the risk for vapor intrusion is not a concern for the site and further sub-slab testing is not necessary.
5. The property is in the process of being transacted; therefore, Giles recommended the seller petition the WDNR for a No Action Required letter to gain concurrence with the WDNR, and to provide the buyer some assurance that the conditions that were identified in both studies do not impose existing liability.



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Pewaukee, Wisconsin
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Thank you for your assistance with this project. Please contact the undersigned should you have any comments or questions regarding this correspondence.

GILES ENGINEERING ASSOCIATES, INC.

Cody L. Reich
Staff Professional

Daniel K. Pelczar, C.P.G., P.G.
Senior Project Manager

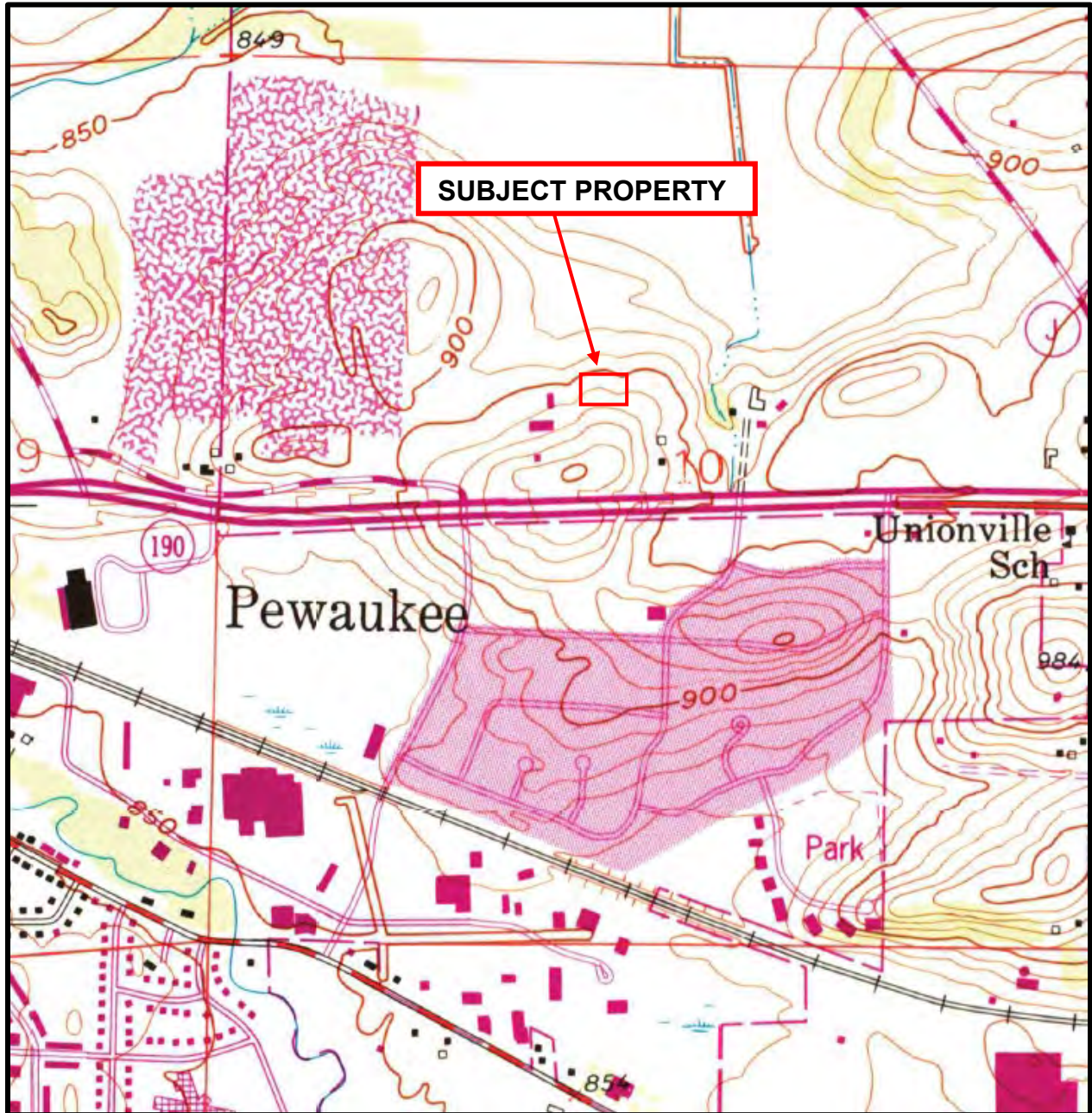
Distribution: The Kenmore Group, LLC
Attn: Mr. Saf Sarich (TKG) (PDF via email: saf@thekenmoregroup.com)

Wisconsin Dept. of Natural Resources Remediation & Redevelopment Dept.
Attn: Mr. Andy Alles

Figures: Figure 1 – Site Location Map
Figure 2 – Detailed Site Map

Attachments: Attachment 1 – GRS Group | Corteq Phase II ESA Report
690 Westfield Way, Pewaukee, Wisconsin

FIGURES



Source: USGS 7.5 Minute Series (topographic) *Waukesha, Wisconsin*
 Quadrangle Map (1959, photorevised 1994)

Scale: 1:24,000 (1"=2000')
 Contour Interval: 10 Feet

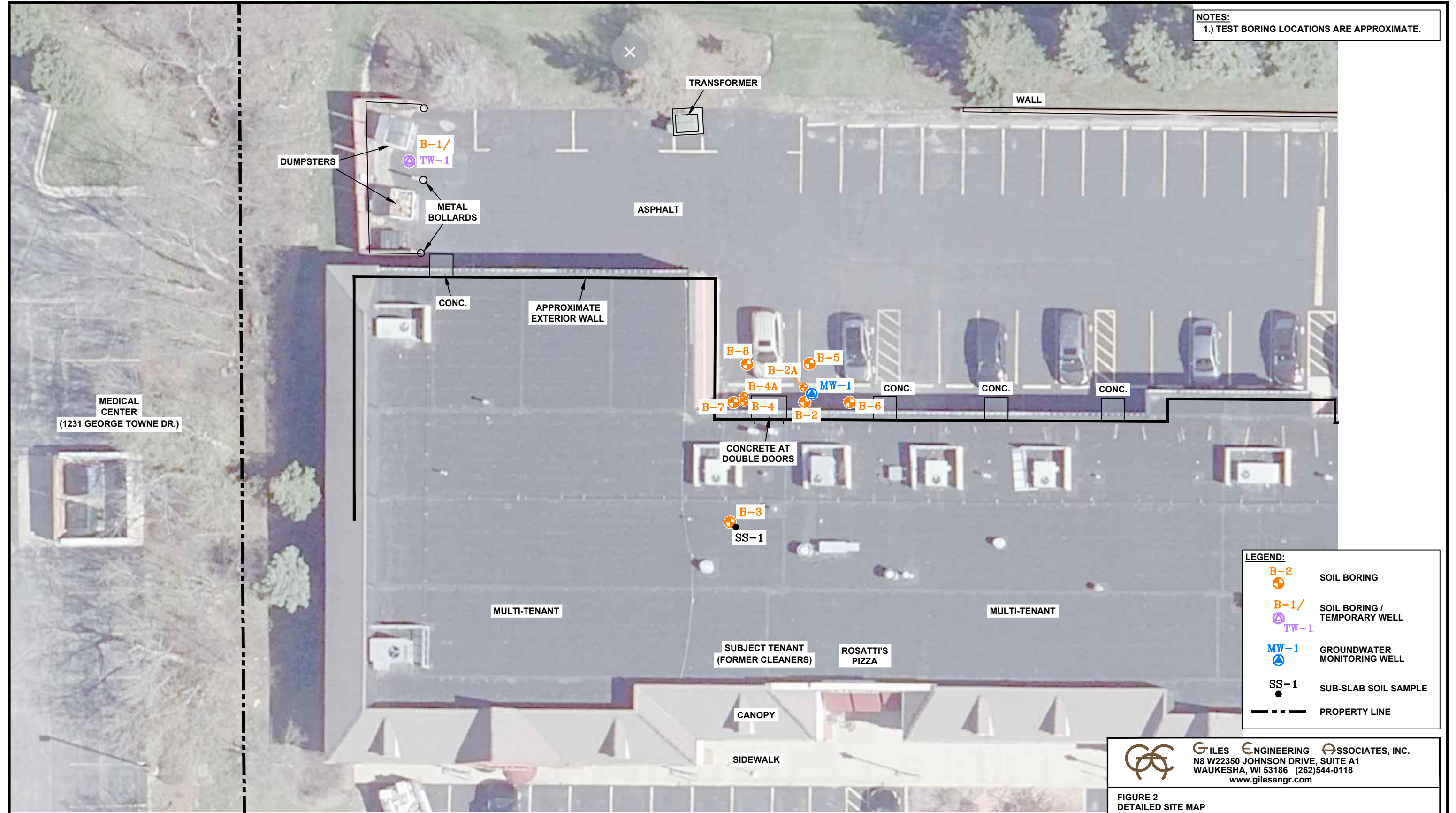


Figure 1
Subject Property Location

Former Dry Cleaner
690 Westfield Way
Pewaukee, Wisconsin
Project No. 1E-2308010

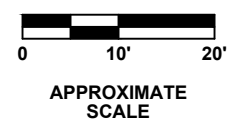


NOTES:
1.) TEST BORING LOCATIONS ARE APPROXIMATE.



LEGEND:

	B-2	SOIL BORING
	B-1/ TW-1	SOIL BORING / TEMPORARY WELL
	MW-1	GROUNDWATER MONITORING WELL
	SS-1	SUB-SLAB SOIL SAMPLE
		PROPERTY LINE



GILES ENGINEERING ASSOCIATES, INC.
N8 W22350 JOHNSON DRIVE, SUITE A1
WAUKESHA, WI 53186 (262)544-0118
www.gilesengr.com

FIGURE 2
DETAILED SITE MAP
FORMER DRY CLEANERS
690 WESTFIELD WAY
PEWAUKEE, WISCONSIN

DESIGNED	DRAWN	SCALE	DATE	REVISED
CLR	<i>Jed</i>	approx. 1"=20'	08-31-23	02-20-24
PROJECT NO.: 1E-2308010			CAD No. 1E2308010A3	

ATTACHMENT 1
GRS Group | Corteq, Phase II ESA Report



LOCAL KNOWLEDGE | GLOBAL PERSPECTIVE

877 GRS CRE1

+1 213 908 2173

www.grs-global.com



Los Angeles

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Dallas

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Assessment

Title Insurance

Financial Advisory

Transaction Management

Phase II Environmental Assessment

PROPERTY REFERENCE:

Lake Country Market
690 Westfield Way
Pewaukee, WI 53072



Phase II Environmental Assessment Limited Subsurface Investigation

Prepared for:

The Kenmore Group, LLC
2835 N. Sheffield Avenue, Suite 403
Chicago, IL 60657

and

Innovative Capital Advisors, LLC
c/o The Philipsborn Company
205 West Randolph Street, Suite 1010
Chicago, IL 60606

Property Identification

Lake Country Market
690 Westfield Way
Pewaukee, WI 53072

Prepared by:

GRS | Corteq
8001 Irvine Center Drive, Suite 145, Irvine, California 92618
877 GRS CRE1 | +1 213 908 2173 | www.grs-global.com

October 18, 2016

GRS Project #: 16-28673.2

RESTRICTED USE AND RELIANCE – THIS REPORT WAS PREPARED FOR THE SOLE USE AND BENEFIT OF THE ADDRESSEES ABOVE AND MAY NOT BE USED OR RELIED UPON BY ANY THIRD-PARTY WITHOUT THE EXPRESS WRITTEN CONSENT OF GRS CORTEQ

INTRODUCTION

This report documents the results of work completed in accordance with the agreement governing the nature and extent of the assessment. Conditions may exist which could not be identified as a result of this investigation.

PURPOSE

This investigation was intended as a screening to evaluate subsurface conditions in identified areas of concern in order to determine the related likelihood of a significant, related release of chemicals of concern as identified below. The assessment is not intended to identify additional areas of concern or to evaluate the potential for release of other chemicals of concern, or to identify the full lateral and vertical extent of release, determine appropriate cleanup actions, or develop a detailed estimate of costs to correct concerns identified.

BACKGROUND INFORMATION

This assessment is based on the following prior investigations:

- Summary Report of Limited Subsurface Investigation–Moraine Environmental, Inc. - 4/25/08
- Phase I Environmental Site Assessment – GRS Corteq #16-28673.1 – 9/28/16

Information provided shows the Property to have been developed for commercial use in 1999. The Property consists of a rectangular-shaped parcel containing approximately 4.469 acres, located on the northwest corner of the intersection of Westfield Way and George Towne Drive in a commercial and residential area of the Village of Pewaukee, Waukesha County, Wisconsin. The Property is improved with a single-story building with 11 current tenant spaces.

The following environmentally sensitive activities have been conducted at the Property.

- Capitol Cleaners has operated at the Property since 1999 utilizing a dry-to-dry, closed loop dry cleaning machine. Such machines are designed to eliminate direct handling of the dry cleaning agent used at the Property known as tetrachloroethylene or perchloroethylene (PCE). A limited subsurface investigation was conducted at the Property in 2008 to determine whether the on-site operation of a dry cleaning facility during the preceding nine years had resulted in subsurface contamination at the Property.

Analytical results for PCE did not reveal any indication of subsurface contamination in any of the three subsurface soil samples that were then collected at the Property. However, at the time of the site visit, GRS | Corteq observed poor housekeeping practices, including unsecured storage of hazardous waste behind the space occupied by Capitol Cleaners and the absence of secondary containment for containers of hazardous (still bottoms) and potentially hazardous (pre-treated separator water) wastes generated at the Property. These conditions could have

caused subsurface contamination at the Property over the past eight years. The seventeen years of operation by Capitol Cleaners represents a REC.

The following additional actions were recommended:

- Phase II investigations to determine whether subsurface media has been impacted.

A Topographic Map of the Property and the surrounding area is attached. According to the Geographical Map of Wisconsin, the Property is located in the Eastern Ridges and Lowlands Physiographic Province. Bedrock beneath the Property is mapped as Silurian age dolomite covered by approximately 0 to 50 feet of glacial deposits. The elevation of the property is 906 feet above sea level. Based on the topographic map, groundwater is presumed to flow to the north.

SCOPE OF WORK

Health and Safety Plan

GRS developed a Health and Safety Plan that was specific to the Property. The development of this plan is required by the Occupational Safety and Health Administration (OSHA) under Hazardous Waste Operations & Emergency Response 29 CFR 1910.120. The Health and Safety Plan was designed to reduce the risk of physical or chemical exposures that may affect on-site workers in the proposed work area. The Health and Safety Plan includes information about chemicals expected on the property, health and safety procedures, and emergency response procedures. The Health and Safety Plan is on file at our office.

Utility Locating

A utility inspection was performed at the Property at least 72 hours prior to the initiation of the subsurface investigation, as required by Wisconsin State law. This inspection consisted of the marking the underground utility locations by authorized utility locating personnel. The ticket number, 20164011374, is dated September 30, 2016.

Subsurface Investigation

Borings

Borings were installed on October 4, 2016 using a GeoProbe™ drill rig and impact hammer drill. Boring locations are illustrated on the attached site plan and detailed below.

One exterior boring (B-1) was completed to a total depth of 24 feet below ground level (BGL) in the paved area behind the Capitol Cleaners. Two interior borings, (B-2 and B-3) were completed to a depth of 5.0 feet BGL near the dry cleaning equipment at the rear of the tenant space.

Methodology

Continuous soil samples were collected from boring B-1 with a four-foot long, stainless-steel macro core lined with disposable acetate sleeves to a terminal depth of 24 feet BGL. Continuous soil samples were collected from the interior borings B-2 and B-3 with a two-foot long, stainless-steel macro core lined with disposable acetate sleeves to a terminal depth of 5.0 feet BGL. The soil samples collected from each boring were field screened with a photo-ionization detector (PID) to screen for the presence of volatile organic vapors.

The following chemicals of concern would normally be expected to be associated with the identified areas of concern:

AREA OF CONCERN	CHEMICALS OF CONCERN	TEST METHODS
Dry Cleaning Facility	Chlorinated Hydrocarbons	Volatile Organic Compounds by EPA Method 8260B

Soil Sampling

Soil encountered at the Property consisted mainly of brown silty and clayey sand with some gravel from the ground surface to at least 24 feet BGL. Groundwater was encountered at approximately 15 feet BGL in Boring B-1. The soil boring logs are attached.

Photoionization Detector (PID)

Elevated PID readings in boring B-1 ranged from 1.5 parts per million (ppm) at 16-20 feet BGL to 6.2 ppm at 6.0-8.0 feet BGL. In boring B-2, the PID readings ranged from 4.4 ppm at 5.0 feet BGL to 10.2 ppm at 2.0-4.0 feet BGL. In boring B-3, the PID readings ranged from 5.6 ppm at 5.0 feet BGL to 10.2 ppm at 2.0-4.0 feet BGL.

Sample Selection

Soil samples were collected for chemical analysis as identified below.

AREA OF CONCERN	BORING	TERMINAL DEPTH	SAMPLE DEPTH	SUPPORTING RATIONALE
Dry Cleaners Facility	B-1	24'	6-8'	Highest PID Reading
	B-2	5'	2-4'	Highest PID Reading
	B-3	5'	2-4'	Highest PID Reading

Groundwater Sampling

In order to evaluate groundwater quality, soil boring B-1 was converted into temporary monitoring well, TMW-1, consisting of 10 feet of 1.0-inch diameter PVC well screen and riser pipe. A groundwater sample was collected from TMW-1 using disposable polyethylene tubing attached to a peristaltic pump and placed directly into laboratory-supplied glassware. Following completion of the sampling activities,

the well material was removed and the three bore holes were abandoned in accordance with Wisconsin regulations.

Laboratory Analytical Results

The soil and groundwater samples were transported under chain of custody to ESC lab sciences in Mount Juliet, Tennessee, a Wisconsin certified laboratory. One soil sample from each boring was analyzed for volatile organic compounds (VOCs) via EPA Method 8260. The groundwater sample collected from TMW-1 was also analyzed for volatile organic compounds (VOCs) via EPA Method 8260.

SOIL ANALYTICAL DATA	B-1 6-8'	B-2 2-4'	B-3 2-4'	GW PROTECTION STANDARD (PCL)
Ethylbenzene	ND	0.00153	ND	1.57
2-Butanone (MEK)	ND	0.0173	0.0184	1.67
n-propylbenzene	ND	0.00160	ND	NE
1,2,4-Trimethylbenzene	ND	0.00418	0.00170	1.38
1,3,5-Trimethylbenzene	ND	0.00117	ND	1.38
Other VOCs	ND	ND	ND	---

- Results and criteria reported in milligrams per kilogram (mg/kg)
- ND – Not detected above the laboratory method detection limits
- NE – No clean up criteria established for this compound

According to the laboratory report, five VOCs were detected in one or more interior soil samples (B-2 and B-3); however, none were detected at concentrations that exceeded Wisconsin Groundwater Protection Standards. No VOCs were detected in the exterior soil sample from boring B-1.

No VOCs were detected in groundwater sample collected from TMW-1 above the laboratory method detection limits.

CONCLUSIONS

No evidence of a significant release was identified as a result of our investigation. GRS Group did not identify conditions which should be reported to regulatory agencies.

Based on the analytical results and current commercial use of the Property, GRS recommends no further investigation.

CERTIFICATION AND RELIANCE

RESTRICTED USE AND RELIANCE - AT THE REQUEST OF OUR CLIENT, THIS REPORT IS ADDRESSED TO THE KENMORE GROUP, LLC AND INNOVATIVE CAPITAL ADVISORS, LLC, WHO SHALL BE ENTITLED TO RELY ON ITS FINDINGS AS IF THEY WERE PARTY TO THE AGREEMENT UNDER WHICH THE WORK WAS PERFORMED. SUCH RELIANCE SHALL BE UNREBUTTABLE EVIDENCE OF FULL ACCEPTANCE OF THAT AGREEMENT. NO OTHER RIGHTS, BENEFITS OR OBLIGATIONS ARE INTENDED OR CONVEYED. THIS

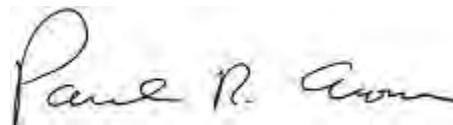
REPORT MAY NOT BE USED OR RELIED UPON BY ANY ADDITIONAL PARTY WITHOUT THE EXPRESS WRITTEN CONSENT OF GRS|CORTEQ.

The conclusions represent professional judgments founded upon the findings of the investigations identified in the report and the interpretation of such data based on our experience and expertise according to the existing standard of care. No other warranty or limitation exists, either expressed or implied.

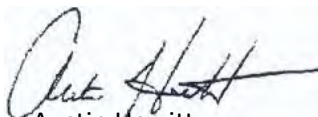
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Randall Glass
Field Geologist



Paul Aronson
Associate Director



Austin Hewitt
Field Professional

Attachments:

- Location and site maps
- Boring logs
- Laboratory Report
- Photos

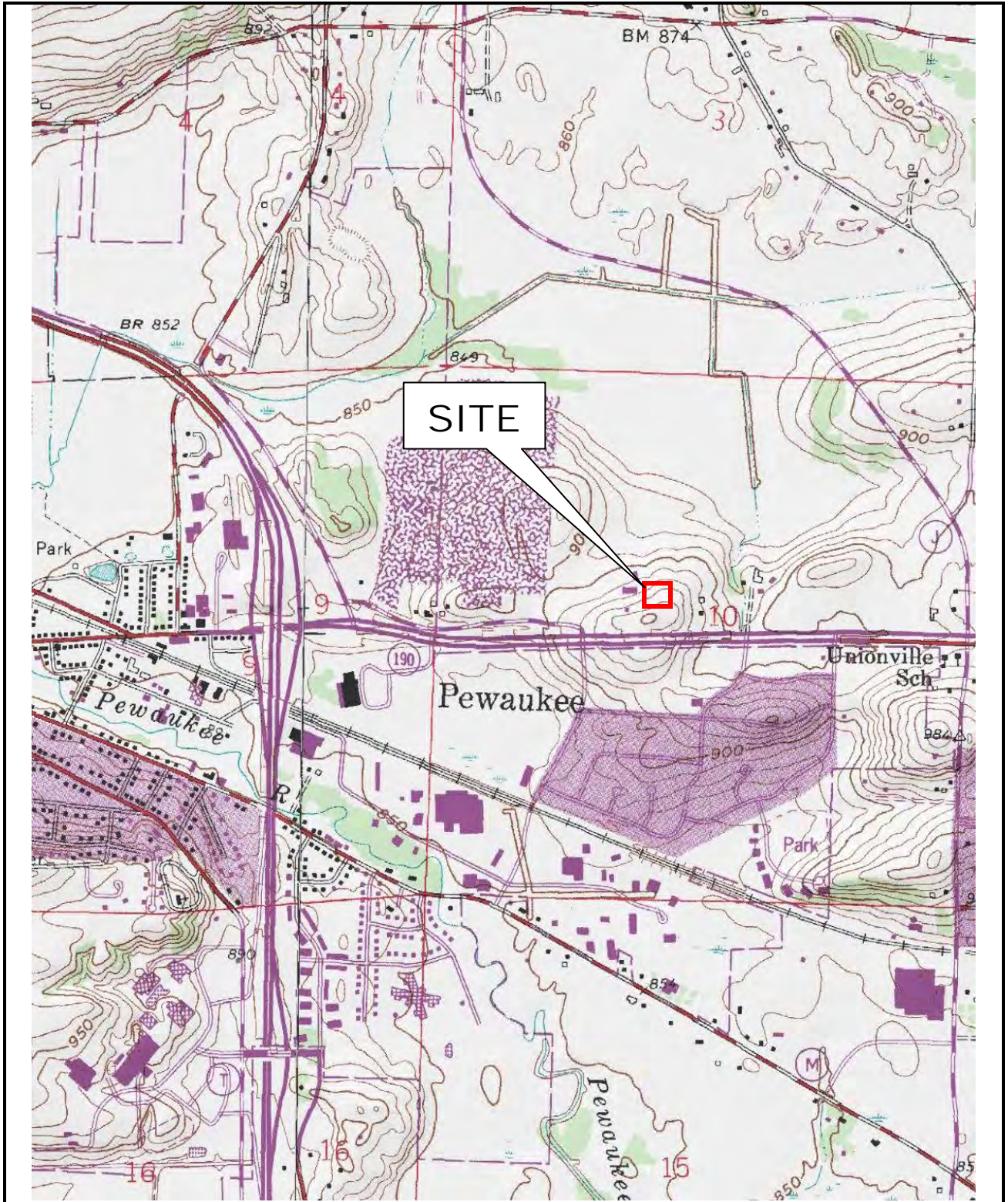
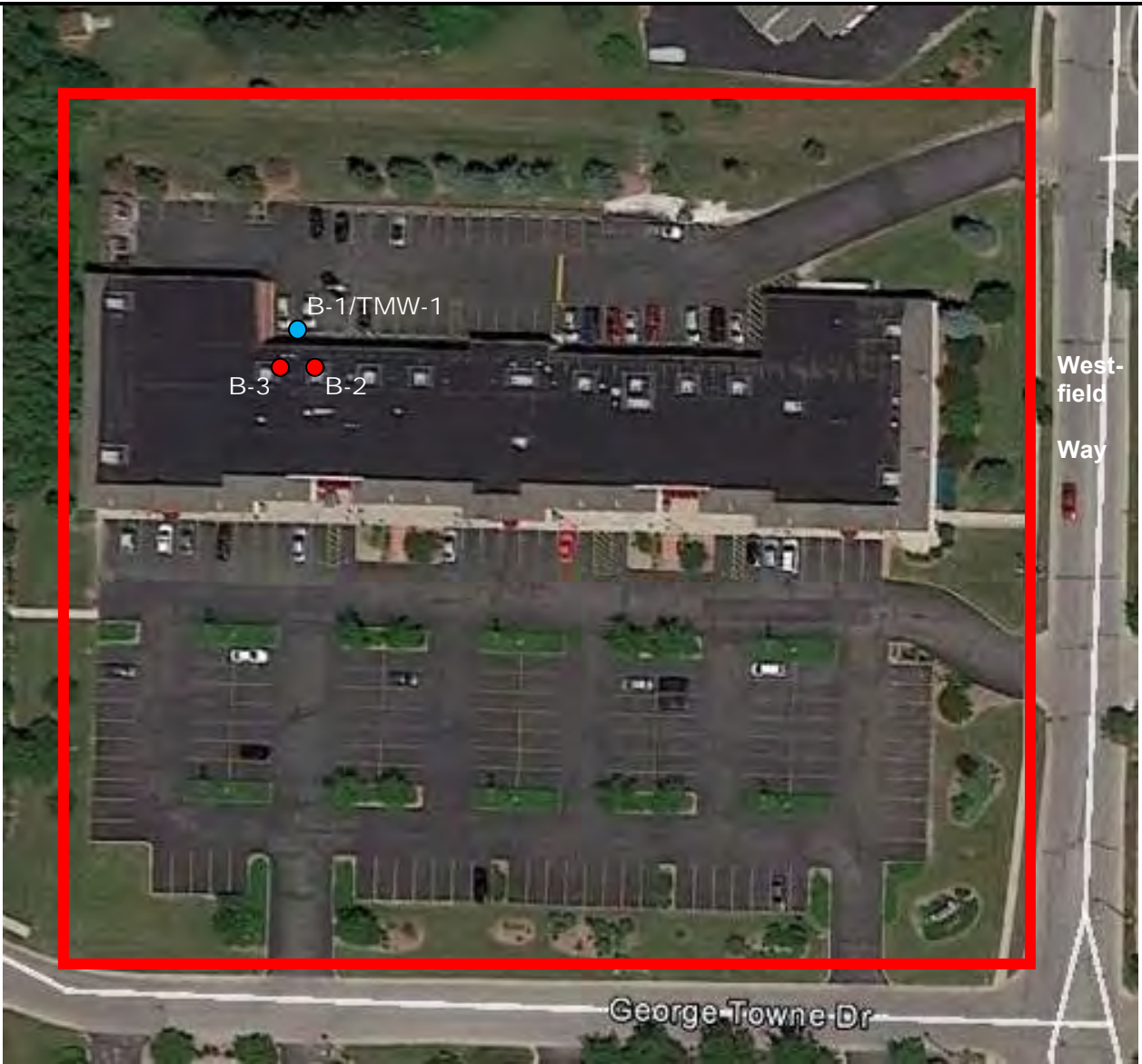





FIGURE 1 - TOPOGRAPHIC MAP

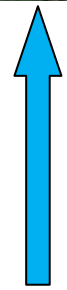


**Lake Country Market
690 Westfield Way
Pewaukee, Wisconsin
16-28673.2**



LEGEND

-  Property Line
-  Soil Boring
-  Temporary Monitoring Well



GROUNDWATER
FLOW

FIGURE 2 - BORING LOCATIONMAP

SCALE 1" =80'

↑ N



**Lake Country Market
690 Westfield Way
Pewaukee, Wisconsin
16-28673.2**

BORING B-1/TMW-1

Project No. 16-28673.2	Sample Date: 10/4/16
Project Name: Lake Country Market	Field Professional: Randy Glass
Site Location: 690 Westfield Way, Pewaukee, WI	Drilled by: Horizon Exploration
Client: The Kenmore Group, LLC	Drill Method: Direct Push

Total Depth: 24 feet

Observed Depth to GW: 15 feet

Depth of Refusal: N/A

Sample Interval	Core Recovery	Sample Depth	Soil Description	USGS	PID (ppm)
0-4'	3'	-	0-2' – Asphalt with limestone aggregate base 2-3' – Brown, Silty SAND, Some Gravel, Moist 3-4' – Gray, Clayey, Silty SAND, Slightly Moist	SM	3.2
4-8'	4'	6-8'	4-6' - Brown Silty CLAY, Firm, Slightly Moist 6-8' – Brown Silty SAND, Some Gravel, Slightly Moist	CL/SM	6.2
8-12'	4'	-	8-10' – Same as Above 10-12' – Brown Clayey Silty SAND, Some Gravel, Slightly Moist	SM	3.0
12-16'	4'	-	12-15' – Same as Above 15-16' - Brown Silty Clayey, SAND, Moist	SM	2.0
16-20'	4'	-	16-18' - Same as Above 18-20' – Brown, Silty, Clayey, SAND and GRAVEL, Moist	SM	1.5
20-24'	4'	-	Same as Above	SM	2.0

NOTES:

- Soil sample B-1 collected from 6-8 feet BGL
- Set temporary monitoring well at 24 feet BGL with a 10 ft. screen

BORING B-2

Project No. 16-28673.2	Sample Date: 10/4/16
Project Name: Lake Country Market	Field Professional: Randy Glass
Site Location: 690 Westfield Way, Pewaukee, WI	Drilled by: Horizon Exploration
Client: The Kenmore Group, LLC	Drill Method: Direct Push

Total Depth: 5 feet

Observed Depth to GW: N/A

Depth of Refusal: N/A

Sample Interval	Core Recovery	Sample Depth	Soil Description	USGS	PID (ppm)
0-2'	1.75'	-	0-1' – Concrete with limestone aggregate base 1-2' – Brown, Silty CLAY, Firm, Slightly Moist	CL	7.1
2-4'	2'	2-4'	Brown, Silty SAND, Dry	SM	10.2
4-5'	1'	-	Same as Above	SM	4.4

NOTES:

- *Soil sample B-2 collected from 2-4 feet BGL*

BORING B-3

Project No. 16-28673.2	Sample Date: 10/4/16
Project Name: Lake Country Market	Field Professional: Randy Glass
Site Location: 690 Westfield Way, Pewaukee, WI	Drilled by: Horizon Exploration
Client: The Kenmore Group, LLC	Drill Method: Direct Push

Total Depth: 5 feet

Observed Depth to GW: N/A

Depth of Refusal: N/A

Sample Interval	Core Recovery	Sample Depth	Soil Description	USGS	PID (ppm)
0-2'	1.75'	-	0-1' – Concrete with limestone aggregate base 1-2' – Brown, Silty, Sandy CLAY, Firm, Slightly Moist	CL	8.2
2-4'	2'	2-4'	Dark Brown, Sandy CLAY, Firm, Slightly Moist	CL	10.2
4-5'	1'	-	Brown, Silty SAND, Dry	SM	5.6

NOTES:

- *Soil sample B-3 collected from 2-4 feet BGL*

A & W Professional Services, PLLC

Sample Delivery Group: L864000
Samples Received: 10/05/2016
Project Number:
Description: Pewaukee, WI
Site: PEWAUKEE, WI
Report To: Mr. Austin Hewitt
7900-D Stevens Mill Road, # 120
Matthews, NC 28104

Entire Report Reviewed By:



Jimmy Hunt

Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.



¹Cp: Cover Page	1	¹Cp
²Tc: Table of Contents	2	²Tc
³Ss: Sample Summary	3	³Ss
⁴Cn: Case Narrative	4	⁴Cn
⁵Sr: Sample Results	5	⁵Sr
B-1 6-8FT L864000-01	5	
B-2 2-4FT L864000-02	7	
B-3 2-4FT L864000-03	9	
TMW-1 L864000-04	11	
⁶Qc: Quality Control Summary	13	⁶Qc
Total Solids by Method 2540 G-2011	13	⁷Gl
Volatile Organic Compounds (GC/MS) by Method 8260B	14	⁸Al
⁷Gl: Glossary of Terms	26	⁹Sc
⁸Al: Accreditations & Locations	27	
⁹Sc: Chain of Custody	28	

SAMPLE SUMMARY



B-1 6-8FT L864000-01 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG914721	1	10/06/16 15:39	10/06/16 15:51	KDW
Volatile Organic Compounds (GC/MS) by Method 8260B	WG915406	1	10/10/16 10:34	10/12/16 02:16	HJF

Collected by Randy Glass
 Collected date/time 10/04/16 11:00
 Received date/time 10/05/16 09:00

1 Cp

2 Tc

3 Ss

4 Cn

B-2 2-4FT L864000-02 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG914721	1	10/06/16 15:39	10/06/16 15:51	KDW
Volatile Organic Compounds (GC/MS) by Method 8260B	WG915406	1	10/10/16 10:34	10/10/16 17:10	BMB

Collected by Randy Glass
 Collected date/time 10/04/16 12:40
 Received date/time 10/05/16 09:00

5 Sr

6 Qc

7 Gl

B-3 2-4FT L864000-03 Solid

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG914721	1	10/06/16 15:39	10/06/16 15:51	KDW
Volatile Organic Compounds (GC/MS) by Method 8260B	WG915406	1	10/10/16 10:34	10/10/16 17:31	BMB

Collected by Randy Glass
 Collected date/time 10/04/16 13:00
 Received date/time 10/05/16 09:00

8 Al

9 Sc

TMW-1 L864000-04 GW

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG916478	1	10/14/16 01:41	10/14/16 01:41	LRL

Collected by Randy Glass
 Collected date/time 10/04/16 11:30
 Received date/time 10/05/16 09:00



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jimmy Hunt
Technical Service Representative

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.0		1	10/06/2016 15:51	WG914721

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0538	1	10/12/2016 02:16	WG915406
Acrylonitrile	ND		0.0108	1	10/12/2016 02:16	WG915406
Benzene	ND		0.00108	1	10/12/2016 02:16	WG915406
Bromobenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
Bromodichloromethane	ND		0.00108	1	10/12/2016 02:16	WG915406
Bromoform	ND		0.00108	1	10/12/2016 02:16	WG915406
Bromomethane	ND		0.00538	1	10/12/2016 02:16	WG915406
n-Butylbenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
sec-Butylbenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
tert-Butylbenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
Carbon tetrachloride	ND		0.00108	1	10/12/2016 02:16	WG915406
Chlorobenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
Chlorodibromomethane	ND		0.00108	1	10/12/2016 02:16	WG915406
Chloroethane	ND		0.00538	1	10/12/2016 02:16	WG915406
2-Chloroethyl vinyl ether	ND	J3	0.0538	1	10/12/2016 02:16	WG915406
Chloroform	ND		0.00538	1	10/12/2016 02:16	WG915406
Chloromethane	ND		0.00269	1	10/12/2016 02:16	WG915406
2-Chlorotoluene	ND		0.00108	1	10/12/2016 02:16	WG915406
4-Chlorotoluene	ND		0.00108	1	10/12/2016 02:16	WG915406
1,2-Dibromo-3-Chloropropane	ND		0.00538	1	10/12/2016 02:16	WG915406
1,2-Dibromoethane	ND		0.00108	1	10/12/2016 02:16	WG915406
Dibromomethane	ND		0.00108	1	10/12/2016 02:16	WG915406
1,2-Dichlorobenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
1,3-Dichlorobenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
1,4-Dichlorobenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
Dichlorodifluoromethane	ND		0.00538	1	10/12/2016 02:16	WG915406
1,1-Dichloroethane	ND		0.00108	1	10/12/2016 02:16	WG915406
1,2-Dichloroethane	ND		0.00108	1	10/12/2016 02:16	WG915406
1,1-Dichloroethene	ND		0.00108	1	10/12/2016 02:16	WG915406
cis-1,2-Dichloroethene	ND		0.00108	1	10/12/2016 02:16	WG915406
trans-1,2-Dichloroethene	ND		0.00108	1	10/12/2016 02:16	WG915406
1,2-Dichloropropane	ND		0.00108	1	10/12/2016 02:16	WG915406
1,1-Dichloropropene	ND		0.00108	1	10/12/2016 02:16	WG915406
1,3-Dichloropropane	ND		0.00108	1	10/12/2016 02:16	WG915406
cis-1,3-Dichloropropene	ND		0.00108	1	10/12/2016 02:16	WG915406
trans-1,3-Dichloropropene	ND		0.00108	1	10/12/2016 02:16	WG915406
2,2-Dichloropropane	ND		0.00108	1	10/12/2016 02:16	WG915406
Di-isopropyl ether	ND		0.00108	1	10/12/2016 02:16	WG915406
Ethylbenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
Hexachloro-1,3-butadiene	ND		0.00108	1	10/12/2016 02:16	WG915406
Isopropylbenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
p-Isopropyltoluene	ND		0.00108	1	10/12/2016 02:16	WG915406
2-Butanone (MEK)	ND		0.0108	1	10/12/2016 02:16	WG915406
Methylene Chloride	ND		0.00538	1	10/12/2016 02:16	WG915406
4-Methyl-2-pentanone (MIBK)	ND		0.0108	1	10/12/2016 02:16	WG915406
Methyl tert-butyl ether	ND		0.00108	1	10/12/2016 02:16	WG915406
Naphthalene	ND		0.00538	1	10/12/2016 02:16	WG915406
n-Propylbenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
Styrene	ND		0.00108	1	10/12/2016 02:16	WG915406
1,1,1,2-Tetrachloroethane	ND		0.00108	1	10/12/2016 02:16	WG915406

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 10/04/16 11:00

L864000

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	ND		0.00108	1	10/12/2016 02:16	WG915406
1,1,2-Trichlorotrifluoroethane	ND		0.00108	1	10/12/2016 02:16	WG915406
Tetrachloroethene	ND		0.00108	1	10/12/2016 02:16	WG915406
Toluene	ND		0.00538	1	10/12/2016 02:16	WG915406
1,2,3-Trichlorobenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
1,2,4-Trichlorobenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
1,1,1-Trichloroethane	ND		0.00108	1	10/12/2016 02:16	WG915406
1,1,2-Trichloroethane	ND		0.00108	1	10/12/2016 02:16	WG915406
Trichloroethene	ND		0.00108	1	10/12/2016 02:16	WG915406
Trichlorofluoromethane	ND		0.00538	1	10/12/2016 02:16	WG915406
1,2,3-Trichloropropane	ND		0.00269	1	10/12/2016 02:16	WG915406
1,2,4-Trimethylbenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
1,2,3-Trimethylbenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
Vinyl chloride	ND		0.00108	1	10/12/2016 02:16	WG915406
1,3,5-Trimethylbenzene	ND		0.00108	1	10/12/2016 02:16	WG915406
Xylenes, Total	ND		0.00323	1	10/12/2016 02:16	WG915406
(S) Toluene-d8	103		88.7-115		10/12/2016 02:16	WG915406
(S) Dibromofluoromethane	95.2		76.3-123		10/12/2016 02:16	WG915406
(S) 4-Bromofluorobenzene	92.3		69.7-129		10/12/2016 02:16	WG915406

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.1		1	10/06/2016 15:51	WG914721

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0581	1	10/10/2016 17:10	WG915406
Acrylonitrile	ND		0.0116	1	10/10/2016 17:10	WG915406
Benzene	ND		0.00116	1	10/10/2016 17:10	WG915406
Bromobenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
Bromodichloromethane	ND		0.00116	1	10/10/2016 17:10	WG915406
Bromoform	ND		0.00116	1	10/10/2016 17:10	WG915406
Bromomethane	ND		0.00581	1	10/10/2016 17:10	WG915406
n-Butylbenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
sec-Butylbenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
tert-Butylbenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
Carbon tetrachloride	ND		0.00116	1	10/10/2016 17:10	WG915406
Chlorobenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
Chlorodibromomethane	ND		0.00116	1	10/10/2016 17:10	WG915406
Chloroethane	ND		0.00581	1	10/10/2016 17:10	WG915406
2-Chloroethyl vinyl ether	ND	J3	0.0581	1	10/10/2016 17:10	WG915406
Chloroform	ND		0.00581	1	10/10/2016 17:10	WG915406
Chloromethane	ND		0.00290	1	10/10/2016 17:10	WG915406
2-Chlorotoluene	ND		0.00116	1	10/10/2016 17:10	WG915406
4-Chlorotoluene	ND		0.00116	1	10/10/2016 17:10	WG915406
1,2-Dibromo-3-Chloropropane	ND		0.00581	1	10/10/2016 17:10	WG915406
1,2-Dibromoethane	ND		0.00116	1	10/10/2016 17:10	WG915406
Dibromomethane	ND		0.00116	1	10/10/2016 17:10	WG915406
1,2-Dichlorobenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
1,3-Dichlorobenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
1,4-Dichlorobenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
Dichlorodifluoromethane	ND		0.00581	1	10/10/2016 17:10	WG915406
1,1-Dichloroethane	ND		0.00116	1	10/10/2016 17:10	WG915406
1,2-Dichloroethane	ND		0.00116	1	10/10/2016 17:10	WG915406
1,1-Dichloroethene	ND		0.00116	1	10/10/2016 17:10	WG915406
cis-1,2-Dichloroethene	ND		0.00116	1	10/10/2016 17:10	WG915406
trans-1,2-Dichloroethene	ND		0.00116	1	10/10/2016 17:10	WG915406
1,2-Dichloropropane	ND		0.00116	1	10/10/2016 17:10	WG915406
1,1-Dichloropropene	ND		0.00116	1	10/10/2016 17:10	WG915406
1,3-Dichloropropane	ND		0.00116	1	10/10/2016 17:10	WG915406
cis-1,3-Dichloropropene	ND		0.00116	1	10/10/2016 17:10	WG915406
trans-1,3-Dichloropropene	ND		0.00116	1	10/10/2016 17:10	WG915406
2,2-Dichloropropane	ND		0.00116	1	10/10/2016 17:10	WG915406
Di-isopropyl ether	ND		0.00116	1	10/10/2016 17:10	WG915406
Ethylbenzene	0.00153		0.00116	1	10/10/2016 17:10	WG915406
Hexachloro-1,3-butadiene	ND		0.00116	1	10/10/2016 17:10	WG915406
Isopropylbenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
p-Isopropyltoluene	ND		0.00116	1	10/10/2016 17:10	WG915406
2-Butanone (MEK)	0.0173		0.0116	1	10/10/2016 17:10	WG915406
Methylene Chloride	ND		0.00581	1	10/10/2016 17:10	WG915406
4-Methyl-2-pentanone (MIBK)	ND		0.0116	1	10/10/2016 17:10	WG915406
Methyl tert-butyl ether	ND		0.00116	1	10/10/2016 17:10	WG915406
Naphthalene	ND		0.00581	1	10/10/2016 17:10	WG915406
n-Propylbenzene	0.00160		0.00116	1	10/10/2016 17:10	WG915406
Styrene	ND		0.00116	1	10/10/2016 17:10	WG915406
1,1,1,2-Tetrachloroethane	ND		0.00116	1	10/10/2016 17:10	WG915406

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 10/04/16 12:40

L864000

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	ND		0.00116	1	10/10/2016 17:10	WG915406
1,1,2-Trichlorotrifluoroethane	ND		0.00116	1	10/10/2016 17:10	WG915406
Tetrachloroethene	ND		0.00116	1	10/10/2016 17:10	WG915406
Toluene	ND		0.00581	1	10/10/2016 17:10	WG915406
1,2,3-Trichlorobenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
1,2,4-Trichlorobenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
1,1,1-Trichloroethane	ND		0.00116	1	10/10/2016 17:10	WG915406
1,1,2-Trichloroethane	ND		0.00116	1	10/10/2016 17:10	WG915406
Trichloroethene	ND		0.00116	1	10/10/2016 17:10	WG915406
Trichlorofluoromethane	ND		0.00581	1	10/10/2016 17:10	WG915406
1,2,3-Trichloropropane	ND		0.00290	1	10/10/2016 17:10	WG915406
1,2,4-Trimethylbenzene	0.00418		0.00116	1	10/10/2016 17:10	WG915406
1,2,3-Trimethylbenzene	0.00117		0.00116	1	10/10/2016 17:10	WG915406
Vinyl chloride	ND		0.00116	1	10/10/2016 17:10	WG915406
1,3,5-Trimethylbenzene	ND		0.00116	1	10/10/2016 17:10	WG915406
Xylenes, Total	ND		0.00348	1	10/10/2016 17:10	WG915406
(S) Toluene-d8	101		88.7-115		10/10/2016 17:10	WG915406
(S) Dibromofluoromethane	102		76.3-123		10/10/2016 17:10	WG915406
(S) 4-Bromofluorobenzene	92.8		69.7-129		10/10/2016 17:10	WG915406

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.3		1	10/06/2016 15:51	WG914721

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Acetone	ND		0.0542	1	10/10/2016 17:31	WG915406
Acrylonitrile	ND		0.0108	1	10/10/2016 17:31	WG915406
Benzene	ND		0.00108	1	10/10/2016 17:31	WG915406
Bromobenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
Bromodichloromethane	ND		0.00108	1	10/10/2016 17:31	WG915406
Bromoform	ND		0.00108	1	10/10/2016 17:31	WG915406
Bromomethane	ND		0.00542	1	10/10/2016 17:31	WG915406
n-Butylbenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
sec-Butylbenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
tert-Butylbenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
Carbon tetrachloride	ND		0.00108	1	10/10/2016 17:31	WG915406
Chlorobenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
Chlorodibromomethane	ND		0.00108	1	10/10/2016 17:31	WG915406
Chloroethane	ND		0.00542	1	10/10/2016 17:31	WG915406
2-Chloroethyl vinyl ether	ND	<u>J3</u>	0.0542	1	10/10/2016 17:31	WG915406
Chloroform	ND		0.00542	1	10/10/2016 17:31	WG915406
Chloromethane	ND		0.00271	1	10/10/2016 17:31	WG915406
2-Chlorotoluene	ND		0.00108	1	10/10/2016 17:31	WG915406
4-Chlorotoluene	ND		0.00108	1	10/10/2016 17:31	WG915406
1,2-Dibromo-3-Chloropropane	ND		0.00542	1	10/10/2016 17:31	WG915406
1,2-Dibromoethane	ND		0.00108	1	10/10/2016 17:31	WG915406
Dibromomethane	ND		0.00108	1	10/10/2016 17:31	WG915406
1,2-Dichlorobenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
1,3-Dichlorobenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
1,4-Dichlorobenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
Dichlorodifluoromethane	ND		0.00542	1	10/10/2016 17:31	WG915406
1,1-Dichloroethane	ND		0.00108	1	10/10/2016 17:31	WG915406
1,2-Dichloroethane	ND		0.00108	1	10/10/2016 17:31	WG915406
1,1-Dichloroethene	ND		0.00108	1	10/10/2016 17:31	WG915406
cis-1,2-Dichloroethene	ND		0.00108	1	10/10/2016 17:31	WG915406
trans-1,2-Dichloroethene	ND		0.00108	1	10/10/2016 17:31	WG915406
1,2-Dichloropropane	ND		0.00108	1	10/10/2016 17:31	WG915406
1,1-Dichloropropene	ND		0.00108	1	10/10/2016 17:31	WG915406
1,3-Dichloropropane	ND		0.00108	1	10/10/2016 17:31	WG915406
cis-1,3-Dichloropropene	ND		0.00108	1	10/10/2016 17:31	WG915406
trans-1,3-Dichloropropene	ND		0.00108	1	10/10/2016 17:31	WG915406
2,2-Dichloropropane	ND		0.00108	1	10/10/2016 17:31	WG915406
Di-isopropyl ether	ND		0.00108	1	10/10/2016 17:31	WG915406
Ethylbenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
Hexachloro-1,3-butadiene	ND		0.00108	1	10/10/2016 17:31	WG915406
Isopropylbenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
p-Isopropyltoluene	ND		0.00108	1	10/10/2016 17:31	WG915406
2-Butanone (MEK)	0.0184		0.0108	1	10/10/2016 17:31	WG915406
Methylene Chloride	ND		0.00542	1	10/10/2016 17:31	WG915406
4-Methyl-2-pentanone (MIBK)	ND		0.0108	1	10/10/2016 17:31	WG915406
Methyl tert-butyl ether	ND		0.00108	1	10/10/2016 17:31	WG915406
Naphthalene	ND		0.00542	1	10/10/2016 17:31	WG915406
n-Propylbenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
Styrene	ND		0.00108	1	10/10/2016 17:31	WG915406
1,1,1,2-Tetrachloroethane	ND		0.00108	1	10/10/2016 17:31	WG915406

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Collected date/time: 10/04/16 13:00

L864000

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2,2-Tetrachloroethane	ND		0.00108	1	10/10/2016 17:31	WG915406
1,1,2-Trichlorotrifluoroethane	ND		0.00108	1	10/10/2016 17:31	WG915406
Tetrachloroethene	ND		0.00108	1	10/10/2016 17:31	WG915406
Toluene	ND		0.00542	1	10/10/2016 17:31	WG915406
1,2,3-Trichlorobenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
1,2,4-Trichlorobenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
1,1,1-Trichloroethane	ND		0.00108	1	10/10/2016 17:31	WG915406
1,1,2-Trichloroethane	ND		0.00108	1	10/10/2016 17:31	WG915406
Trichloroethene	ND		0.00108	1	10/10/2016 17:31	WG915406
Trichlorofluoromethane	ND		0.00542	1	10/10/2016 17:31	WG915406
1,2,3-Trichloropropane	ND		0.00271	1	10/10/2016 17:31	WG915406
1,2,4-Trimethylbenzene	0.00170		0.00108	1	10/10/2016 17:31	WG915406
1,2,3-Trimethylbenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
Vinyl chloride	ND		0.00108	1	10/10/2016 17:31	WG915406
1,3,5-Trimethylbenzene	ND		0.00108	1	10/10/2016 17:31	WG915406
Xylenes, Total	ND		0.00325	1	10/10/2016 17:31	WG915406
(S) Toluene-d8	107		88.7-115		10/10/2016 17:31	WG915406
(S) Dibromofluoromethane	95.8		76.3-123		10/10/2016 17:31	WG915406
(S) 4-Bromofluorobenzene	94.5		69.7-129		10/10/2016 17:31	WG915406

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND	J4	0.0500	1	10/14/2016 01:41	WG916478
Acrolein	ND		0.0500	1	10/14/2016 01:41	WG916478
Acrylonitrile	ND		0.0100	1	10/14/2016 01:41	WG916478
Benzene	ND		0.00100	1	10/14/2016 01:41	WG916478
Bromobenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
Bromodichloromethane	ND		0.00100	1	10/14/2016 01:41	WG916478
Bromoform	ND		0.00100	1	10/14/2016 01:41	WG916478
Bromomethane	ND		0.00500	1	10/14/2016 01:41	WG916478
n-Butylbenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
sec-Butylbenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
tert-Butylbenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
Carbon tetrachloride	ND		0.00100	1	10/14/2016 01:41	WG916478
Chlorobenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
Chlorodibromomethane	ND		0.00100	1	10/14/2016 01:41	WG916478
Chloroethane	ND		0.00500	1	10/14/2016 01:41	WG916478
2-Chloroethyl vinyl ether	ND		0.0500	1	10/14/2016 01:41	WG916478
Chloroform	ND		0.00500	1	10/14/2016 01:41	WG916478
Chloromethane	ND		0.00250	1	10/14/2016 01:41	WG916478
2-Chlorotoluene	ND		0.00100	1	10/14/2016 01:41	WG916478
4-Chlorotoluene	ND		0.00100	1	10/14/2016 01:41	WG916478
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	10/14/2016 01:41	WG916478
1,2-Dibromoethane	ND		0.00100	1	10/14/2016 01:41	WG916478
Dibromomethane	ND		0.00100	1	10/14/2016 01:41	WG916478
1,2-Dichlorobenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
1,3-Dichlorobenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
1,4-Dichlorobenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
Dichlorodifluoromethane	ND		0.00500	1	10/14/2016 01:41	WG916478
1,1-Dichloroethane	ND		0.00100	1	10/14/2016 01:41	WG916478
1,2-Dichloroethane	ND		0.00100	1	10/14/2016 01:41	WG916478
1,1-Dichloroethene	ND		0.00100	1	10/14/2016 01:41	WG916478
cis-1,2-Dichloroethene	ND		0.00100	1	10/14/2016 01:41	WG916478
trans-1,2-Dichloroethene	ND		0.00100	1	10/14/2016 01:41	WG916478
1,2-Dichloropropane	ND		0.00100	1	10/14/2016 01:41	WG916478
1,1-Dichloropropene	ND		0.00100	1	10/14/2016 01:41	WG916478
1,3-Dichloropropane	ND		0.00100	1	10/14/2016 01:41	WG916478
cis-1,3-Dichloropropene	ND		0.00100	1	10/14/2016 01:41	WG916478
trans-1,3-Dichloropropene	ND		0.00100	1	10/14/2016 01:41	WG916478
2,2-Dichloropropane	ND		0.00100	1	10/14/2016 01:41	WG916478
Di-isopropyl ether	ND		0.00100	1	10/14/2016 01:41	WG916478
Ethylbenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
Hexachloro-1,3-butadiene	ND		0.00100	1	10/14/2016 01:41	WG916478
Isopropylbenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
p-Isopropyltoluene	ND		0.00100	1	10/14/2016 01:41	WG916478
2-Butanone (MEK)	ND		0.0100	1	10/14/2016 01:41	WG916478
Methylene Chloride	ND		0.00500	1	10/14/2016 01:41	WG916478
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	10/14/2016 01:41	WG916478
Methyl tert-butyl ether	ND		0.00100	1	10/14/2016 01:41	WG916478
Naphthalene	ND		0.00500	1	10/14/2016 01:41	WG916478
n-Propylbenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
Styrene	ND		0.00100	1	10/14/2016 01:41	WG916478
1,1,1,2-Tetrachloroethane	ND		0.00100	1	10/14/2016 01:41	WG916478
1,1,2,2-Tetrachloroethane	ND		0.00100	1	10/14/2016 01:41	WG916478
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	10/14/2016 01:41	WG916478
Tetrachloroethene	ND		0.00100	1	10/14/2016 01:41	WG916478
Toluene	ND		0.00500	1	10/14/2016 01:41	WG916478
1,2,3-Trichlorobenzene	ND		0.00100	1	10/14/2016 01:41	WG916478

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 10/04/16 11:30

L864000

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
1,1,1-Trichloroethane	ND		0.00100	1	10/14/2016 01:41	WG916478
1,1,2-Trichloroethane	ND		0.00100	1	10/14/2016 01:41	WG916478
Trichloroethene	ND		0.00100	1	10/14/2016 01:41	WG916478
Trichlorofluoromethane	ND		0.00500	1	10/14/2016 01:41	WG916478
1,2,3-Trichloropropane	ND		0.00250	1	10/14/2016 01:41	WG916478
1,2,4-Trimethylbenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
1,2,3-Trimethylbenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
1,3,5-Trimethylbenzene	ND		0.00100	1	10/14/2016 01:41	WG916478
Vinyl chloride	ND		0.00100	1	10/14/2016 01:41	WG916478
Xylenes, Total	ND		0.00300	1	10/14/2016 01:41	WG916478
(S) Toluene-d8	103		90.0-115		10/14/2016 01:41	WG916478
(S) Dibromofluoromethane	101		79.0-121		10/14/2016 01:41	WG916478
(S) 4-Bromofluorobenzene	100		80.1-120		10/14/2016 01:41	WG916478

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3168875-1 10/06/16 15:51

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	%		%	%
Total Solids	0.00100			

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

L863845-05 Original Sample (OS) • Duplicate (DUP)

(OS) L863845-05 10/06/16 15:51 • (DUP) R3168875-3 10/06/16 15:51

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	85.0	84.7	1	0.391		5

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3168875-2 10/06/16 15:51

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	



Method Blank (MB)

(MB) R3169285-3 10/09/16 08:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
2-Chloroethyl vinyl ether	U		0.00234	0.0500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3169285-3 10/09/16 08:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	110			88.7-115
(S) Dibromofluoromethane	106			76.3-123
(S) 4-Bromofluorobenzene	107			69.7-129

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3169285-1 10/09/16 06:58 • (LCSD) R3169285-4 10/09/16 10:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.135	0.150	108	120	25.3-178			10.7	22.9
Acrylonitrile	0.125	0.152	0.149	122	119	57.8-143			2.23	20
Benzene	0.0250	0.0275	0.0270	110	108	72.6-120			1.86	20
Bromobenzene	0.0250	0.0263	0.0279	105	112	80.3-115			5.98	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3169285-1 10/09/16 06:58 • (LCSD) R3169285-4 10/09/16 10:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	0.0250	0.0272	0.0283	109	113	75.3-119			4.00	20
Bromoform	0.0250	0.0261	0.0273	105	109	69.1-135			4.20	20
Bromomethane	0.0250	0.0181	0.0173	72.4	69.0	23.0-191			4.81	20
n-Butylbenzene	0.0250	0.0253	0.0293	101	117	74.2-134			14.7	20
sec-Butylbenzene	0.0250	0.0256	0.0285	103	114	77.8-129			10.7	20
tert-Butylbenzene	0.0250	0.0260	0.0288	104	115	77.2-129			10.2	20
Carbon tetrachloride	0.0250	0.0259	0.0271	103	109	69.4-129			4.73	20
Chlorobenzene	0.0250	0.0254	0.0275	102	110	78.9-122			7.68	20
Chlorodibromomethane	0.0250	0.0268	0.0288	107	115	76.4-126			7.25	20
Chloroethane	0.0250	0.0203	0.0194	81.3	77.7	47.2-147			4.49	20
2-Chloroethyl vinyl ether	0.125	0.0288	0.0441	23.0	35.3	16.7-162		J3	42.0	23.7
Chloroform	0.0250	0.0273	0.0286	109	114	73.3-122			4.43	20
Chloromethane	0.0250	0.0217	0.0183	86.8	73.0	53.1-135			17.3	20
2-Chlorotoluene	0.0250	0.0254	0.0282	101	113	74.6-127			10.5	20
4-Chlorotoluene	0.0250	0.0256	0.0291	102	116	79.5-123			12.8	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0259	0.0252	104	101	64.9-131			2.73	20
1,2-Dibromoethane	0.0250	0.0272	0.0278	109	111	78.7-123			2.04	20
Dibromomethane	0.0250	0.0281	0.0276	112	110	78.5-117			1.56	20
1,2-Dichlorobenzene	0.0250	0.0261	0.0280	104	112	83.6-119			7.26	20
1,3-Dichlorobenzene	0.0250	0.0245	0.0275	98.2	110	75.9-129			11.4	20
1,4-Dichlorobenzene	0.0250	0.0242	0.0267	96.8	107	81.0-115			9.92	20
Dichlorodifluoromethane	0.0250	0.0248	0.0248	99.2	99.1	50.9-139			0.110	20
1,1-Dichloroethane	0.0250	0.0275	0.0282	110	113	71.7-125			2.43	20
1,2-Dichloroethane	0.0250	0.0287	0.0282	115	113	67.2-121			1.74	20
1,1-Dichloroethene	0.0250	0.0213	0.0206	85.3	82.5	60.6-133			3.37	20
cis-1,2-Dichloroethene	0.0250	0.0281	0.0289	112	115	76.1-121			2.78	20
trans-1,2-Dichloroethene	0.0250	0.0265	0.0254	106	102	70.7-124			4.33	20
1,2-Dichloropropane	0.0250	0.0276	0.0277	110	111	76.9-123			0.490	20
1,1-Dichloropropene	0.0250	0.0266	0.0264	106	106	71.2-126			0.720	20
1,3-Dichloropropane	0.0250	0.0273	0.0282	109	113	80.3-114			3.03	20
cis-1,3-Dichloropropene	0.0250	0.0280	0.0296	112	118	77.3-123			5.48	20
trans-1,3-Dichloropropene	0.0250	0.0289	0.0302	116	121	73.0-127			4.29	20
2,2-Dichloropropane	0.0250	0.0261	0.0288	104	115	61.9-132			9.96	20
Di-isopropyl ether	0.0250	0.0304	0.0295	122	118	67.2-131			3.26	20
Ethylbenzene	0.0250	0.0245	0.0260	98.2	104	78.6-124			5.76	20
Hexachloro-1,3-butadiene	0.0250	0.0234	0.0265	93.7	106	69.2-136			12.4	20
Isopropylbenzene	0.0250	0.0259	0.0283	104	113	79.4-126			8.73	20
p-Isopropyltoluene	0.0250	0.0253	0.0296	101	119	75.4-132			15.7	20
2-Butanone (MEK)	0.125	0.146	0.159	117	127	44.5-154			8.82	21.3
Methylene Chloride	0.0250	0.0250	0.0241	100	96.3	68.2-119			3.80	20

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3169285-1 10/09/16 06:58 • (LCSD) R3169285-4 10/09/16 10:15

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	0.125	0.142	0.144	114	115	61.1-138			1.41	20
Methyl tert-butyl ether	0.0250	0.0289	0.0280	116	112	70.2-122			3.32	20
Naphthalene	0.0250	0.0271	0.0273	108	109	69.9-132			0.520	20
n-Propylbenzene	0.0250	0.0249	0.0282	99.6	113	80.2-124			12.4	20
Styrene	0.0250	0.0265	0.0297	106	119	79.4-124			11.4	20
1,1,1,2-Tetrachloroethane	0.0250	0.0269	0.0288	108	115	76.7-127			7.06	20
1,1,2,2-Tetrachloroethane	0.0250	0.0271	0.0272	109	109	78.8-124			0.260	20
Tetrachloroethene	0.0250	0.0223	0.0235	89.4	94.1	71.1-133			5.13	20
Toluene	0.0250	0.0254	0.0257	102	103	76.7-116			1.09	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0215	0.0229	85.8	91.8	62.6-138			6.67	20
1,2,3-Trichlorobenzene	0.0250	0.0257	0.0281	103	113	72.5-137			9.12	20
1,2,4-Trichlorobenzene	0.0250	0.0252	0.0296	101	118	74.0-137			15.9	20
1,1,1-Trichloroethane	0.0250	0.0270	0.0280	108	112	69.9-127			3.42	20
1,1,2-Trichloroethane	0.0250	0.0268	0.0281	107	112	81.9-119			4.42	20
Trichloroethene	0.0250	0.0248	0.0256	99.3	102	77.2-122			3.16	20
Trichlorofluoromethane	0.0250	0.0216	0.0225	86.5	89.9	51.5-151			3.87	20
1,2,3-Trichloropropane	0.0250	0.0260	0.0277	104	111	74.0-124			6.20	20
1,2,3-Trimethylbenzene	0.0250	0.0260	0.0272	104	109	79.4-118			4.67	20
1,2,4-Trimethylbenzene	0.0250	0.0254	0.0282	102	113	77.1-124			10.1	20
1,3,5-Trimethylbenzene	0.0250	0.0250	0.0276	99.9	110	79.0-125			10.0	20
Vinyl chloride	0.0250	0.0203	0.0186	81.2	74.5	58.4-134			8.64	20
Xylenes, Total	0.0750	0.0738	0.0795	98.4	106	78.1-123			7.39	20
(S) Toluene-d8				110	109	88.7-115				
(S) Dibromofluoromethane				108	108	76.3-123				
(S) 4-Bromofluorobenzene				104	107	69.7-129				

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

L864504-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L864504-10 10/09/16 16:57 • (MS) R3169285-5 10/09/16 12:44 • (MSD) R3169285-6 10/09/16 13:05

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	ND	0.0284	0.0318	5.67	8.37	1	10.0-130	J6	J6	11.2	31.5
Acrylonitrile	0.125	ND	0.0333	0.0418	26.7	33.4	1	39.3-152	J6	J6	22.5	27.2
Benzene	0.0250	0.00184	0.0146	0.0150	51.2	52.7	1	47.8-131			2.47	22.8
Bromobenzene	0.0250	ND	0.00637	0.00676	25.5	27.0	1	40.0-130	J6	J6	6.02	27.4
Bromodichloromethane	0.0250	ND	0.00972	0.0104	38.9	41.5	1	50.6-128	J6	J6	6.49	22.8
Bromoform	0.0250	ND	0.00539	0.00651	21.6	26.0	1	43.3-139	J6	J6	18.7	25.9
Bromomethane	0.0250	ND	0.00823	0.00808	32.9	32.3	1	5.00-189			1.86	26.7
n-Butylbenzene	0.0250	ND	0.00663	0.00815	26.5	32.6	1	23.6-146			20.6	39.2



L864504-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L864504-10 10/09/16 16:57 • (MS) R3169285-5 10/09/16 12:44 • (MSD) R3169285-6 10/09/16 13:05

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
sec-Butylbenzene	0.0250	ND	0.00874	0.0104	35.0	41.7	1	31.0-142			17.5	34.7
tert-Butylbenzene	0.0250	ND	0.00940	0.0112	37.6	44.7	1	36.9-142			17.4	31.7
Carbon tetrachloride	0.0250	ND	0.0198	0.0194	79.0	77.6	1	46.0-140			1.85	27.2
Chlorobenzene	0.0250	ND	0.00836	0.00845	33.4	33.8	1	44.1-134	J6	J6	1.02	25.7
Chlorodibromomethane	0.0250	ND	0.00706	0.00783	28.2	31.3	1	49.7-134	J6	J6	10.4	24
Chloroethane	0.0250	ND	0.0132	0.0134	52.8	53.4	1	5.00-164			1.22	28.4
2-Chloroethyl vinyl ether	0.125	ND	ND	ND	0.000	0.000	1	5.00-159	J6	J6	0.000	40
Chloroform	0.0250	ND	0.0141	0.0147	56.4	58.6	1	51.2-133			3.91	22.8
Chloromethane	0.0250	ND	0.0113	0.0110	45.1	44.2	1	31.4-141			2.02	24.6
2-Chlorotoluene	0.0250	ND	0.00711	0.00761	28.4	30.4	1	36.1-137	J6	J6	6.82	28.9
4-Chlorotoluene	0.0250	ND	0.00624	0.00673	25.0	26.9	1	35.4-137	J6	J6	7.53	29.8
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.00439	0.00609	17.6	24.4	1	40.4-138	J6	J3 J6	32.4	30.8
1,2-Dibromoethane	0.0250	ND	0.00635	0.00723	25.4	28.9	1	50.2-133	J6	J6	13.0	23.6
Dibromomethane	0.0250	ND	0.00755	0.00839	30.2	33.6	1	52.4-128	J6	J6	10.6	23
1,2-Dichlorobenzene	0.0250	ND	0.00414	0.00496	16.6	19.8	1	34.6-139	J6	J6	18.1	29.9
1,3-Dichlorobenzene	0.0250	ND	0.00460	0.00516	18.4	20.6	1	28.4-142	J6	J6	11.4	31.2
1,4-Dichlorobenzene	0.0250	ND	0.00427	0.00500	17.1	20.0	1	35.0-133	J6	J6	15.8	31.1
Dichlorodifluoromethane	0.0250	ND	0.0185	0.0167	74.1	66.8	1	31.2-144			10.2	30.2
1,1-Dichloroethane	0.0250	ND	0.0156	0.0165	62.3	65.8	1	49.1-136			5.51	22.9
1,2-Dichloroethane	0.0250	ND	0.00839	0.00959	33.6	38.3	1	47.1-129	J6	J6	13.3	22.7
1,1-Dichloroethene	0.0250	ND	0.0154	0.0147	61.4	58.9	1	36.1-142			4.20	25.6
cis-1,2-Dichloroethene	0.0250	ND	0.0133	0.0135	53.2	54.0	1	50.6-133			1.46	23
trans-1,2-Dichloroethene	0.0250	ND	0.0162	0.0154	64.9	61.6	1	43.8-135			5.26	24.8
1,2-Dichloropropane	0.0250	ND	0.0108	0.0116	43.2	46.4	1	50.3-134	J6	J6	7.07	22.7
1,1-Dichloropropene	0.0250	ND	0.0186	0.0177	74.6	70.7	1	43.0-137			5.36	26.4
1,3-Dichloropropane	0.0250	ND	0.00695	0.00790	27.8	31.6	1	51.4-127	J6	J6	12.7	23.1
cis-1,3-Dichloropropene	0.0250	ND	0.00877	0.00940	35.1	37.6	1	48.4-134	J6	J6	7.03	23.6
trans-1,3-Dichloropropene	0.0250	ND	0.00728	0.00810	29.1	32.4	1	46.6-135	J6	J6	10.6	25.3
2,2-Dichloropropane	0.0250	ND	0.0202	0.0208	80.8	83.0	1	45.2-141			2.76	26.6
Di-isopropyl ether	0.0250	ND	0.0114	0.0130	45.8	52.1	1	46.7-140	J6		12.9	23.5
Ethylbenzene	0.0250	0.00161	0.0118	0.0120	40.6	41.6	1	44.8-135	J6	J6	2.17	26.9
Hexachloro-1,3-butadiene	0.0250	ND	0.00419	0.00568	16.8	22.7	1	10.0-149			30.3	40
Isopropylbenzene	0.0250	ND	0.0110	0.0120	44.2	48.0	1	41.9-139			8.34	29.3
p-Isopropyltoluene	0.0250	ND	0.00798	0.00943	31.9	37.7	1	27.3-146			16.7	35.1
2-Butanone (MEK)	0.125	ND	0.0249	0.0313	15.1	20.2	1	23.9-170	J6	J6	22.8	28.3
Methylene Chloride	0.0250	ND	0.00948	0.0101	37.9	40.2	1	46.7-125	J6	J6	5.95	22.2
4-Methyl-2-pentanone (MIBK)	0.125	ND	0.0336	0.0423	26.9	33.8	1	42.4-146	J6	J6	22.7	26.7
Methyl tert-butyl ether	0.0250	ND	0.00797	0.00931	31.9	37.3	1	50.4-131	J6	J6	15.5	24.8
Naphthalene	0.0250	ND	0.00251	0.00324	10.0	13.0	1	18.4-145	J6	J6	25.5	34
n-Propylbenzene	0.0250	ND	0.00940	0.0103	36.7	40.1	1	35.2-139			8.71	31.9

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L864504-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L864504-10 10/09/16 16:57 • (MS) R3169285-5 10/09/16 12:44 • (MSD) R3169285-6 10/09/16 13:05

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Styrene	0.0250	ND	0.00279	0.00517	11.2	20.7	1	39.7-137	J6	J3 J6	59.8	28.2
1,1,1,2-Tetrachloroethane	0.0250	ND	0.00885	0.00947	35.4	37.9	1	48.8-136	J6	J6	6.75	25.5
1,1,2,2-Tetrachloroethane	0.0250	ND	0.00603	0.00699	24.1	28.0	1	45.7-140	J6	J6	14.7	26.4
Tetrachloroethene	0.0250	ND	0.0123	0.0118	49.2	47.2	1	37.7-140			4.17	29.2
Toluene	0.0250	ND	0.0148	0.0145	43.6	42.3	1	47.8-127	J6	J6	2.25	24.3
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.0193	0.0178	77.1	71.1	1	35.7-146			8.10	28.8
1,2,3-Trichlorobenzene	0.0250	ND	0.00224	0.00300	8.97	12.0	1	10.0-150	J6		29.0	38.5
1,2,4-Trichlorobenzene	0.0250	ND	0.00253	0.00348	10.1	13.9	1	10.0-153			31.4	39.3
1,1,1-Trichloroethane	0.0250	ND	0.0206	0.0204	82.3	81.7	1	49.0-138			0.710	25.3
1,1,2-Trichloroethane	0.0250	ND	0.00717	0.00800	28.7	32.0	1	52.3-132	J6	J6	10.9	23.4
Trichloroethene	0.0250	ND	0.0148	0.0139	59.2	55.6	1	48.0-132			6.28	24.8
Trichlorofluoromethane	0.0250	ND	0.0176	0.0163	70.2	65.1	1	12.8-169			7.58	29.7
1,2,3-Trichloropropane	0.0250	ND	0.00605	0.00701	24.2	28.1	1	44.4-138	J6	J6	14.7	26.3
1,2,3-Trimethylbenzene	0.0250	ND	0.00565	0.00669	22.6	26.7	1	41.0-133	J6	J6	16.8	27.6
1,2,4-Trimethylbenzene	0.0250	ND	0.00677	0.00779	24.0	28.1	1	32.9-139	J6	J6	14.0	30.6
1,3,5-Trimethylbenzene	0.0250	ND	0.00747	0.00853	28.5	32.8	1	37.1-138	J6	J6	13.2	30.6
Vinyl chloride	0.0250	ND	0.0140	0.0131	56.1	52.5	1	32.0-146			6.65	26.3
Xylenes, Total	0.0750	ND	0.0299	0.0302	36.4	36.7	1	42.7-135	J6	J6	0.930	26.6
(S) Toluene-d8					110	109		88.7-115				
(S) Dibromofluoromethane					113	114		76.3-123				
(S) 4-Bromofluorobenzene					104	105		69.7-129				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3170725-3 10/14/16 00:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	0.0500
Acrolein	U		0.00887	0.0500
Acrylonitrile	U		0.00187	0.0100
Benzene	U		0.000331	0.00100
Bromobenzene	U		0.000352	0.00100
Bromodichloromethane	U		0.000380	0.00100
Bromoform	U		0.000469	0.00100
Bromomethane	U		0.000866	0.00500
n-Butylbenzene	U		0.000361	0.00100
sec-Butylbenzene	U		0.000365	0.00100
tert-Butylbenzene	U		0.000399	0.00100
Carbon tetrachloride	U		0.000379	0.00100
Chlorobenzene	U		0.000348	0.00100
Chlorodibromomethane	U		0.000327	0.00100
Chloroethane	U		0.000453	0.00500
2-Chloroethyl vinyl ether	U		0.00301	0.0500
Chloroform	U		0.000324	0.00500
Chloromethane	U		0.000276	0.00250
2-Chlorotoluene	U		0.000375	0.00100
4-Chlorotoluene	U		0.000351	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500
1,2-Dibromoethane	U		0.000381	0.00100
Dibromomethane	U		0.000346	0.00100
1,2-Dichlorobenzene	U		0.000349	0.00100
1,3-Dichlorobenzene	U		0.000220	0.00100
1,4-Dichlorobenzene	U		0.000274	0.00100
Dichlorodifluoromethane	U		0.000551	0.00500
1,1-Dichloroethane	U		0.000259	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
1,1-Dichloroethene	U		0.000398	0.00100
cis-1,2-Dichloroethene	U		0.000260	0.00100
trans-1,2-Dichloroethene	U		0.000396	0.00100
1,2-Dichloropropane	U		0.000306	0.00100
1,1-Dichloropropene	U		0.000352	0.00100
1,3-Dichloropropane	U		0.000366	0.00100
cis-1,3-Dichloropropene	U		0.000418	0.00100
trans-1,3-Dichloropropene	U		0.000419	0.00100
2,2-Dichloropropane	U		0.000321	0.00100
Di-isopropyl ether	U		0.000320	0.00100
Ethylbenzene	U		0.000384	0.00100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Method Blank (MB)

(MB) R3170725-3 10/14/16 00:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Hexachloro-1,3-butadiene	U		0.000256	0.00100
Isopropylbenzene	U		0.000326	0.00100
p-Isopropyltoluene	U		0.000350	0.00100
2-Butanone (MEK)	U		0.00393	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000349	0.00100
Styrene	U		0.000307	0.00100
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
Tetrachloroethene	U		0.000372	0.00100
Toluene	U		0.000780	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Vinyl chloride	U		0.000259	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	103			90.0-115
(S) Dibromofluoromethane	102			79.0-121
(S) 4-Bromofluorobenzene	100			80.1-120

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3170725-1 10/13/16 22:41 • (LCSD) R3170725-2 10/13/16 23:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.227	0.212	182	170	28.7-175	<u>J4</u>		6.91	20.9
Acrolein	0.125	0.0753	0.0801	60.2	64.1	40.4-172			6.23	20
Acrylonitrile	0.125	0.121	0.125	97.0	99.8	58.2-145			2.93	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3170725-1 10/13/16 22:41 • (LCSD) R3170725-2 10/13/16 23:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0237	0.0244	94.9	97.7	73.0-122			2.93	20
Bromobenzene	0.0250	0.0222	0.0223	88.8	89.3	81.5-115			0.620	20
Bromodichloromethane	0.0250	0.0234	0.0236	93.7	94.6	75.5-121			0.900	20
Bromoform	0.0250	0.0221	0.0221	88.3	88.2	71.5-131			0.130	20
Bromomethane	0.0250	0.0248	0.0239	99.2	95.7	22.4-187			3.60	20
n-Butylbenzene	0.0250	0.0218	0.0226	87.2	90.3	75.9-134			3.46	20
sec-Butylbenzene	0.0250	0.0223	0.0228	89.1	91.1	80.6-126			2.31	20
tert-Butylbenzene	0.0250	0.0223	0.0228	89.2	91.1	79.3-127			2.16	20
Carbon tetrachloride	0.0250	0.0227	0.0232	90.9	92.8	70.9-129			1.98	20
Chlorobenzene	0.0250	0.0225	0.0230	89.9	91.9	79.7-122			2.19	20
Chlorodibromomethane	0.0250	0.0232	0.0235	92.8	93.8	78.2-124			1.10	20
Chloroethane	0.0250	0.0243	0.0237	97.0	94.9	41.2-153			2.26	20
2-Chloroethyl vinyl ether	0.125	0.117	0.120	93.5	95.8	23.4-162			2.40	23.5
Chloroform	0.0250	0.0239	0.0247	95.6	99.0	73.2-125			3.45	20
Chloromethane	0.0250	0.0243	0.0247	97.1	98.8	55.8-134			1.77	20
2-Chlorotoluene	0.0250	0.0229	0.0234	91.5	93.6	76.4-125			2.19	20
4-Chlorotoluene	0.0250	0.0228	0.0233	91.1	93.1	81.5-121			2.20	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0216	0.0222	86.4	88.7	64.8-131			2.69	20
1,2-Dibromoethane	0.0250	0.0222	0.0229	88.7	91.6	79.8-122			3.23	20
Dibromomethane	0.0250	0.0239	0.0246	95.6	98.5	79.5-118			3.03	20
1,2-Dichlorobenzene	0.0250	0.0223	0.0231	89.3	92.4	84.7-118			3.45	20
1,3-Dichlorobenzene	0.0250	0.0223	0.0230	89.1	91.8	77.6-127			3.05	20
1,4-Dichlorobenzene	0.0250	0.0211	0.0221	84.2	88.2	82.2-114			4.65	20
Dichlorodifluoromethane	0.0250	0.0271	0.0262	108	105	56.0-134			3.27	20
1,1-Dichloroethane	0.0250	0.0241	0.0247	96.2	98.7	71.7-127			2.55	20
1,2-Dichloroethane	0.0250	0.0238	0.0247	95.1	98.8	65.3-126			3.80	20
1,1-Dichloroethene	0.0250	0.0239	0.0246	95.7	98.3	59.9-137			2.71	20
cis-1,2-Dichloroethene	0.0250	0.0243	0.0252	97.4	101	77.3-122			3.62	20
trans-1,2-Dichloroethene	0.0250	0.0241	0.0248	96.4	99.4	72.6-125			2.99	20
1,2-Dichloropropane	0.0250	0.0236	0.0242	94.5	96.8	77.4-125			2.41	20
1,1-Dichloropropene	0.0250	0.0243	0.0253	97.3	101	72.5-127			3.78	20
1,3-Dichloropropane	0.0250	0.0228	0.0234	91.3	93.5	80.6-115			2.40	20
cis-1,3-Dichloropropene	0.0250	0.0238	0.0246	95.1	98.5	77.7-124			3.50	20
trans-1,3-Dichloropropene	0.0250	0.0233	0.0238	93.3	95.3	73.5-127			2.18	20
2,2-Dichloropropane	0.0250	0.0205	0.0217	82.1	86.7	61.3-134			5.48	20
Di-isopropyl ether	0.0250	0.0222	0.0227	88.6	91.0	65.1-135			2.64	20
Ethylbenzene	0.0250	0.0222	0.0229	88.6	91.6	80.9-121			3.34	20
Hexachloro-1,3-butadiene	0.0250	0.0233	0.0241	93.0	96.4	73.7-133			3.63	20
Isopropylbenzene	0.0250	0.0220	0.0225	88.1	89.8	81.6-124			1.95	20
p-Isopropyltoluene	0.0250	0.0231	0.0235	92.5	94.0	77.6-129			1.55	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3170725-1 10/13/16 22:41 • (LCSD) R3170725-2 10/13/16 23:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
2-Butanone (MEK)	0.125	0.128	0.128	103	103	46.4-155			0.210	20
Methylene Chloride	0.0250	0.0235	0.0242	93.9	96.9	69.5-120			3.18	20
4-Methyl-2-pentanone (MIBK)	0.125	0.110	0.113	88.4	90.6	63.3-138			2.46	20
Methyl tert-butyl ether	0.0250	0.0228	0.0237	91.4	94.9	70.1-125			3.78	20
Naphthalene	0.0250	0.0227	0.0232	90.9	92.8	69.7-134			2.08	20
n-Propylbenzene	0.0250	0.0230	0.0234	92.2	93.6	81.9-122			1.54	20
Styrene	0.0250	0.0231	0.0236	92.4	94.3	79.9-124			1.99	20
1,1,1,2-Tetrachloroethane	0.0250	0.0220	0.0226	88.1	90.4	78.5-125			2.61	20
1,1,2,2-Tetrachloroethane	0.0250	0.0204	0.0211	81.8	84.5	79.3-123			3.26	20
Tetrachloroethene	0.0250	0.0217	0.0222	86.8	88.6	73.5-130			2.10	20
Toluene	0.0250	0.0235	0.0241	94.0	96.2	77.9-116			2.37	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0251	0.0249	101	99.7	62.0-141			0.810	20
1,2,3-Trichlorobenzene	0.0250	0.0246	0.0248	98.6	99.1	75.7-134			0.540	20
1,2,4-Trichlorobenzene	0.0250	0.0241	0.0248	96.4	99.2	76.1-136			2.85	20
1,1,1-Trichloroethane	0.0250	0.0235	0.0242	94.1	96.9	71.1-129			2.97	20
1,1,2-Trichloroethane	0.0250	0.0226	0.0230	90.4	91.8	81.6-120			1.61	20
Trichloroethene	0.0250	0.0245	0.0251	98.1	101	79.5-121			2.42	20
Trichlorofluoromethane	0.0250	0.0275	0.0274	110	110	49.1-157			0.300	20
1,2,3-Trichloropropane	0.0250	0.0208	0.0216	83.4	86.2	74.9-124			3.36	20
1,2,3-Trimethylbenzene	0.0250	0.0211	0.0218	84.4	87.2	79.9-118			3.29	20
1,2,4-Trimethylbenzene	0.0250	0.0223	0.0226	89.3	90.5	79.0-122			1.41	20
1,3,5-Trimethylbenzene	0.0250	0.0221	0.0226	88.3	90.3	81.0-123			2.27	20
Vinyl chloride	0.0250	0.0256	0.0262	103	105	61.5-134			2.11	20
Xylenes, Total	0.0750	0.0666	0.0684	88.8	91.1	79.2-122			2.64	20
(S) Toluene-d8				105	104	90.0-115				
(S) Dibromofluoromethane				102	102	79.0-121				
(S) 4-Bromofluorobenzene				100	99.2	80.1-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

L863749-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L863749-17 10/14/16 02:27 • (MS) R3170725-4 10/14/16 02:51 • (MSD) R3170725-5 10/14/16 03:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	U	2.01	2.10	160	168	10	25.0-156	J5	J5	4.41	21.5
Acrolein	0.125	U	3.44	3.50	275	280	10	34.0-194	J5	J5	1.89	21.5
Acrylonitrile	0.125	U	1.39	1.38	111	110	10	55.9-161			0.410	20
Benzene	0.0250	0.0375	0.262	0.268	89.8	92.0	10	58.6-133			2.12	20
Bromobenzene	0.0250	U	0.229	0.242	91.6	96.8	10	70.6-125			5.56	20
Bromodichloromethane	0.0250	U	0.245	0.251	98.0	101	10	69.2-127			2.59	20



L863749-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L863749-17 10/14/16 02:27 • (MS) R3170725-4 10/14/16 02:51 • (MSD) R3170725-5 10/14/16 03:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromoform	0.0250	U	0.243	0.251	97.3	100	10	66.3-140			3.18	20
Bromomethane	0.0250	U	0.179	0.182	71.6	72.7	10	16.6-183			1.56	20.5
n-Butylbenzene	0.0250	U	0.241	0.251	96.4	100	10	64.8-145			3.96	20
sec-Butylbenzene	0.0250	U	0.243	0.259	97.1	104	10	66.8-139			6.70	20
tert-Butylbenzene	0.0250	0.00408	0.247	0.262	97.0	103	10	67.1-138			6.09	20
Carbon tetrachloride	0.0250	U	0.226	0.235	90.2	94.1	10	60.6-139			4.26	20
Chlorobenzene	0.0250	U	0.229	0.240	91.4	96.1	10	70.1-130			4.96	20
Chlorodibromomethane	0.0250	U	0.251	0.260	100	104	10	71.6-132			3.82	20
Chloroethane	0.0250	U	0.190	0.192	76.0	76.7	10	33.3-155			0.830	20
2-Chloroethyl vinyl ether	0.125	U	0.0861	0.0786	6.89	6.29	10	5.00-149			9.02	40
Chloroform	0.0250	U	0.268	0.272	107	109	10	66.1-133			1.37	20
Chloromethane	0.0250	U	0.168	0.169	67.1	67.7	10	40.7-139			0.900	20
2-Chlorotoluene	0.0250	U	0.246	0.259	98.4	104	10	66.9-134			5.19	20
4-Chlorotoluene	0.0250	U	0.237	0.248	94.6	99.1	10	66.8-134			4.67	20
1,2-Dibromo-3-Chloropropane	0.0250	U	0.244	0.250	97.4	99.9	10	63.9-142			2.49	20.2
1,2-Dibromoethane	0.0250	U	0.224	0.232	89.5	92.7	10	73.8-131			3.54	20
Dibromomethane	0.0250	U	0.231	0.236	92.4	94.6	10	72.8-127			2.25	20
1,2-Dichlorobenzene	0.0250	U	0.246	0.250	98.3	100	10	77.4-127			1.75	20
1,3-Dichlorobenzene	0.0250	U	0.236	0.249	94.4	99.8	10	67.9-136			5.55	20
1,4-Dichlorobenzene	0.0250	U	0.231	0.237	92.5	94.7	10	74.4-123			2.37	20
Dichlorodifluoromethane	0.0250	U	0.258	0.251	103	100	10	42.2-146			3.06	20
1,1-Dichloroethane	0.0250	U	0.247	0.254	98.9	101	10	64.0-134			2.56	20
1,2-Dichloroethane	0.0250	U	0.240	0.245	96.0	98.0	10	60.7-132			2.07	20
1,1-Dichloroethene	0.0250	U	0.214	0.218	85.6	87.4	10	48.8-144			1.99	20
cis-1,2-Dichloroethene	0.0250	U	0.238	0.241	95.4	96.5	10	60.6-136			1.15	20
trans-1,2-Dichloroethene	0.0250	U	0.197	0.203	78.7	81.2	10	61.0-132			3.08	20
1,2-Dichloropropane	0.0250	U	0.239	0.248	95.6	99.1	10	69.7-130			3.65	20
1,1-Dichloropropene	0.0250	U	0.215	0.221	86.0	88.3	10	61.5-136			2.63	20
1,3-Dichloropropane	0.0250	U	0.237	0.242	94.9	96.8	10	74.3-123			2.06	20
cis-1,3-Dichloropropene	0.0250	U	0.240	0.247	95.9	98.9	10	71.1-129			3.03	20
trans-1,3-Dichloropropene	0.0250	U	0.238	0.246	95.2	98.3	10	66.3-136			3.22	20
2,2-Dichloropropane	0.0250	U	0.234	0.232	93.6	93.0	10	54.9-142			0.730	20
Di-isopropyl ether	0.0250	U	0.233	0.239	93.2	95.7	10	59.9-140			2.67	20
Ethylbenzene	0.0250	0.102	0.334	0.349	92.8	98.7	10	62.7-136			4.34	20
Hexachloro-1,3-butadiene	0.0250	U	0.251	0.280	100	112	10	61.1-144			11.1	20.1
Isopropylbenzene	0.0250	0.503	0.769	0.803	106	120	10	67.4-136			4.34	20
p-Isopropyltoluene	0.0250	U	0.248	0.265	99.0	106	10	62.8-143			6.90	20
2-Butanone (MEK)	0.125	U	1.08	1.10	86.2	87.6	10	45.0-156			1.68	20.8
Methylene Chloride	0.0250	U	0.216	0.222	86.4	88.9	10	61.5-125			2.90	20
4-Methyl-2-pentanone (MIBK)	0.125	U	1.21	1.23	96.5	98.3	10	60.7-150			1.86	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



L863749-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L863749-17 10/14/16 02:27 • (MS) R3170725-4 10/14/16 02:51 • (MSD) R3170725-5 10/14/16 03:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.0250	U	0.243	0.251	97.3	101	10	61.4-136			3.23	20
Naphthalene	0.0250	U	0.247	0.263	98.6	105	10	61.8-143			6.54	20
n-Propylbenzene	0.0250	0.0119	0.251	0.266	95.7	102	10	63.2-139			5.66	20
Styrene	0.0250	U	0.240	0.253	96.1	101	10	68.2-133			5.27	20
1,1,1,2-Tetrachloroethane	0.0250	U	0.242	0.251	96.7	101	10	70.5-132			3.97	20
1,1,2,2-Tetrachloroethane	0.0250	U	0.241	0.251	96.6	100	10	64.9-145			3.89	20
Tetrachloroethene	0.0250	U	0.194	0.201	77.4	80.5	10	57.4-141			3.84	20
Toluene	0.0250	0.0268	0.247	0.256	88.1	91.7	10	67.8-124			3.58	20
1,1,2-Trichlorotrifluoroethane	0.0250	U	0.265	0.275	106	110	10	53.7-150			3.70	20
1,2,3-Trichlorobenzene	0.0250	U	0.259	0.287	104	115	10	65.7-143			10.2	20
1,2,4-Trichlorobenzene	0.0250	U	0.258	0.281	103	112	10	67.0-146			8.32	20
1,1,1-Trichloroethane	0.0250	U	0.244	0.250	97.4	99.9	10	58.7-134			2.54	20
1,1,2-Trichloroethane	0.0250	U	0.241	0.250	96.6	100	10	74.1-130			3.51	20
Trichloroethene	0.0250	U	0.214	0.218	85.5	87.3	10	48.9-148			2.08	20
Trichlorofluoromethane	0.0250	U	0.246	0.250	98.3	100	10	39.9-165			1.81	20
1,2,3-Trichloropropane	0.0250	U	0.231	0.239	92.6	95.8	10	71.5-134			3.37	20
1,2,3-Trimethylbenzene	0.0250	0.0309	0.263	0.272	93.0	96.3	10	62.7-133			3.13	20
1,2,4-Trimethylbenzene	0.0250	0.142	0.392	0.416	100	110	10	60.5-137			5.82	20
1,3,5-Trimethylbenzene	0.0250	0.0374	0.272	0.288	94.0	100	10	67.9-134			5.70	20
Vinyl chloride	0.0250	U	0.200	0.196	80.0	78.4	10	44.3-143			2.03	20
Xylenes, Total	0.0750	0.629	1.36	1.41	96.8	104	10	65.6-133			3.74	20
(S) Toluene-d8					104	103		90.0-115				
(S) Dibromofluoromethane					103	103		79.0-121				
(S) 4-Bromofluorobenzene					99.3	99.6		80.1-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

- ¹ Cp
- ² Tc
- ³ Ss
- ⁴ Cn
- ⁵ Sr
- ⁶ Qc
- ⁷ Gl
- ⁸ Al
- ⁹ Sc



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.
 * Not all certifications held by the laboratory are applicable to the results reported in the attached report.



State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ¹⁴	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

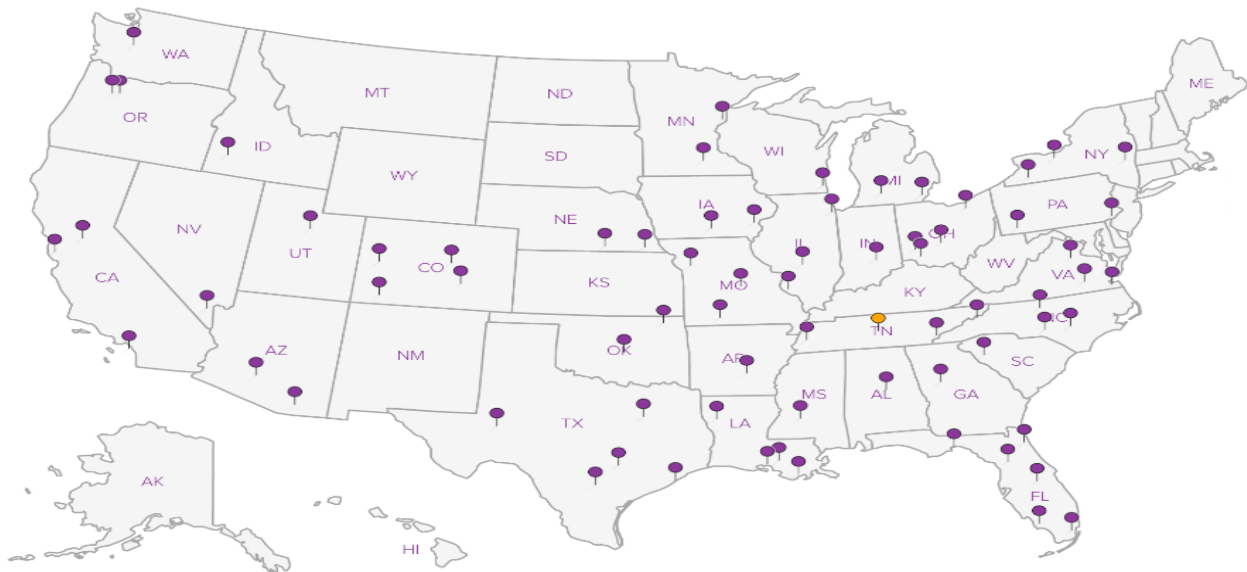
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{n/a} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



A & W Professional Services, PLLC
 7900-D Stevens Mill Road, # 120
 Matthews, NC 28104

Billing Information:
Mr. Austin Hewitt
 7900-D Stevens Mill Road, # 120
 Matthews, NC 28104

Report to:
Mr. Austin Hewitt

Email To: austin@awprofessionalservices.com

Project **LAKE COUNTRY MARKET**
 Description: **Pewaukee, WI**

City/State Collected: **Pewaukee, WI**

Phone: **704-877-3541**
 Fax:

Client Project #

Lab Project #
AWPROMNC-PEWAUKEE, WI

Collected by (print):
Randy Glass

Site/Facility ID #
PEWAUKEE, WI

P.O. #

Collected by (signature):
Randy Glass
 Immediately Packed on Ice N Y

Rush? (Lab MUST Be Notified)
 Same Day200%
 Next Day100%
 Two Day50%
 Three Day25%

Date Results Needed
 Email? No Yes
 FAX? No Yes

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Screen for V8260 2ozClr-NoPres	TS 2ozClr-NoPres	V8260 (MeOH) 40ml/NaHSO4/Syr/MeOH	V8260 40ml/NaHSO4/Syr/MeOH	V8260 40mlAmb-HCl
B-1, 6-8'	G	SS	6-8'	10/4/16	1100	5	X	X	X	X	
B-2, 2-4'	G	SS	2-4'	↓	1240	5	X	X	X	X	
B-3, 2-4'	G	SS	2-4'		1300	5	X	X	X	X	
TMW-1	G	GW			1130	2					X

Analysis / Container / Preservative

Screen for V8260 2ozClr-NoPres	TS 2ozClr-NoPres	V8260 (MeOH) 40ml/NaHSO4/Syr/MeOH	V8260 40ml/NaHSO4/Syr/MeOH	V8260 40mlAmb-HCl
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Chain of Custody Page ___ of ___



L.A.B S.C.I.E.N.C.E.S

YOUR LAB OF CHOICE

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



L# *86400*

T# **D209**

Acctnum: **AWPROMNC**
 Template: **T116440**
 Prelogin: **P570470**
 TSR: **350 - Jimmy Hunt**
 PB: *9/29/16*

Shipped Via: **FedEX Ground**

Rem./Contaminant	Sample # (lab only)
	<i>01</i>
	<i>02</i>
	<i>03</i>
	<i>04</i>

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

Remarks: pH _____ Temp _____
 Flow _____ Other _____

Relinquished by: (Signature) <i>Randy Glass</i>	Date:	Time:	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: _____ °C Bottles Received: 3-1 17+1TB
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>[Signature]</i>	Date: 10-5-16 Time: 0900

Hold #

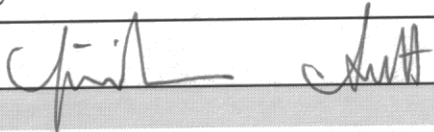
Condition: (lab use only)
1839

COC Seal Intact: Y N NA

pH Checked: NCF:



Cooler Receipt Form

Client:	AWPROMNC	SDG#	763486400		
Cooler Received/Opened On: 10/5/16	Temperature Upon Receipt:		3.1 °c		
Received By: Timiesha Scott					
Signature: 					
Receipt Check List			Yes	No	N/A
Were custody seals on outside of cooler and intact?					/
Were custody papers properly filled out?			/		
Did all bottles arrive in good condition?			/		
Were correct bottles used for the analyses requested?			/		
Was sufficient amount of sample sent in each bottle?			/		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)					/
If applicable, was an observable VOA headspace present?				/	
Non Conformance Generated. (If yes see attached NCF)					



1. A view of the dry cleaners looking north.



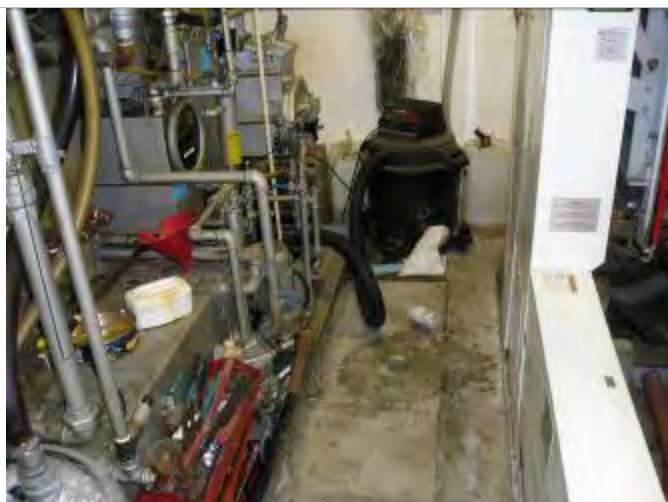
2. A view of the rear entrance to dry cleaners looking south.



3. A view of boring B-1 on north side of building.



4. A view of boring B-2 east of the dry cleaning machine.



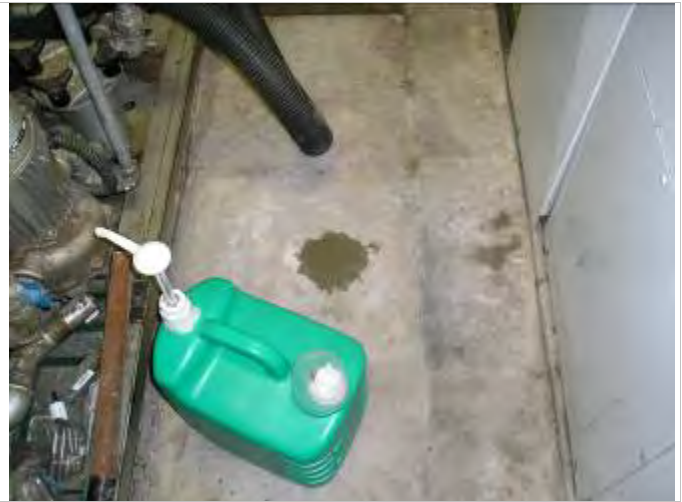
5. A view of boring B-3 north of the dry cleaning machine.



6. A view of boring B-1 patched with asphalt.



7. A view of boring B-2 patched with concrete.



8. A view of boring B-3 patched with concrete.

Randall J. Glass

Field Professional

YEARS OF EXPERIENCE: 20

EDUCATION

Master of Science, Geology,
Bowling Green State University,
1991

Bachelor of Science, Geology, Lake
Superior State University, 1986

REGISTRATIONS

Registered Professional Geologist,
AIPG #: CPG10861

LICENSES AND

CERTIFICATIONS

OSHA 40-Hour Hazardous Waste
Worker

Certified Underground Storage
Tank Professional #994

AFFILIATIONS

Michigan Association of
Environmental Professionals

SUMMARY OF SKILLS AND QUALIFICATIONS

- **Over 20 years experience** - performing Phase I, Phase II, property condition assessments, and other environmental /structural site reconnaissance services.
- **Over 15 years experience** – as a direct project manager overseeing environmental assessment of industrial, commercial, institutional and residential properties.
- **3 years of direct experience** – providing asbestos management for a single institution.

SUMMARY OF COMPLETED PROJECTS

- Personally written over **50** ASTM compliant Phase I and Phase II reports within the last **5** years
- Personally managed over **75** assessment and remediation projects in the Midwest.
- Completed **10** commercial/industrial AAI compliant Phase I's within the last **5** year

RECENT PROJECTS

- Phase I: Sandstone Quarry – Rockwood, MI
- Phase I: Sand Quarry-Muskegon, MI
- Phase II: Dodge Dealership-Eastpointe, MI
- Phase II: Fuel Testing Lab-Ferndale, MI
- Phase I: U-Storage-Westland, MI
- Phase II/BEA: Assembly & Test Worldwide-Livonia, MI

Austin Hewitt, PE, LEED AP

Field Professional

YEARS OF EXPERIENCE: 9

EDUCATION

Bachelor of Science, Civil & Environmental Engineering,
Tennessee Tech University, 2002

REGISTRATIONS

Registered Professional Engineer,
North Carolina, #034411

LICENSES AND CERTIFICATIONS

OSHA 40-Hour Hazardous Waste Worker
LEED Accredited Professional,
#103467456

SUMMARY OF SKILLS AND QUALIFICATIONS

- **Over 9 years experience** - performing Phase I, Phase II, property condition assessments, construction draws, and other environmental /structural site reconnaissance services.
- **Over 3 years experience** – as a project manager overseeing nationwide projects for one of the largest lender-related due diligence firms in the nation.

SUMMARY OF COMPLETED PROJECTS

- Managed over **300** ASTM compliant phase II projects in the past **5** years
- Personally written over **200** ASTM compliant phase I, phase II, and/or PCA reports within the last **3** years
- Personally performed the site reconnaissance and total report preparation for projects in **24** states; including **6** projects in Mexico
- Completed **7** construction draw inspections for lending institutions over the last year

RECENT PROJECTS

- Phase II, Soil-Gas, & Indoor Air Sampling: Rochdale Village – Queens, NY
- Phase II Portfolio: 9 Penn-Med rush projects - Pennsylvania
- Phase II: 850 The Alameda – San Jose, CA
- Phase II: Subaru Dealership – Kalispell, MT
- Construction Draw: Yorktowne Apartments – Durham, NC
- Phase II: Westinghouse Research Park – Churchill, PA

Paul Aronson

Associate Director

YEARS OF EXPERIENCE:

28

EDUCATION:

BS Geology

LICENSES AND CERTIFICATIONS:

Licensed Professional Geologist in Illinois

Asbestos Building Inspector

SUMMARY OF SKILLS AND TECHNICAL QUALIFICATIONS

Mr. Aronson is an Environmental Professional with 28 years of experience in environmental issues ranging from property environmental assessments to regulatory reporting, remediation and compliance. For a national environmental consulting firm Mr. Aronson served as Project Manager, where he performed and managed over 2000 environmental site assessments on various industrial, commercial, institutional and residential properties. Assessments included limited and comprehensive surveys for asbestos, lead-based paint, lead-in-drinking-water and radon gas emissions.

In addition, Mr. Aronson has managed Underground Storage Tank removals; subsurface investigations to determine the type and extent of contamination in soil and groundwater; completed Corrective Action Plans; managed groundwater monitoring programs; managed over-site of drilling programs and sample recovery for Phase II and III Environmental Assessments; provided groundwater monitoring analysis for landfills and managed landfill closure and expansion permit applications. Mr. Aronson was also successful in obtaining NFA letters for leaking underground storage tank clients. Mr. Aronson designed and managed on-site remediation projects including pump and treat/vapor extraction.

Mr. Aronson's diverse experience across public and private environments is a major contribution to Global Realty Services Group team.

PROFESSIONAL EXPERIENCE & CAREER HIGHLIGHTS

Mr. Aronson has performed and managed thousands of Phase I environmental assessments on industrial/commercial/retail/multi-family properties for private investors and major lending institutions.

Mr. Aronson has completed thousands of technical QA/QC environmental reviews on all types of commercial property nationwide to ensure technical accuracy and compliance with current regulations and client-specific scopes of work.

Mr. Aronson performed Underground Storage Tank removals; subsurface investigations to determine the type and extent of contamination in soil and groundwater; completed Corrective Action Plans; designed and completed groundwater monitoring programs; managed drilling programs and sample recovery for Phase II and III Environmental Assessments.