

**From:** Schroyer, Blaine R. <Blaine.Schroyer@terracon.com>  
**Sent:** Tuesday, February 25, 2020 10:23 AM  
**To:** Egan, Alice M - DNR  
**Cc:** Chabela, Lucas P  
**Subject:** RE: 601 Ryan Street, Pewaukee GLC/NAR request  
**Attachments:** 58197210 EX4 Vapor Sample Locations.pdf

Alice – Sorry for the delay. Mondays...both those locations were just inside an exterior footing walls. See attached.

**Blaine R. Schroyer, P.E.**  
**Senior Principal | Office Manager**

**Terracon**

9856 South 57th Street | Franklin, Wisconsin 53132  
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[Blaine.Schroyer@Terracon.com](mailto:Blaine.Schroyer@Terracon.com) | [www.Terracon.com](http://www.Terracon.com)

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**From:** Egan, Alice M - DNR <[Alice.Egan@wisconsin.gov](mailto:Alice.Egan@wisconsin.gov)>  
**Sent:** Monday, February 24, 2020 3:02 PM  
**To:** Schroyer, Blaine R. <[Blaine.Schroyer@terracon.com](mailto:Blaine.Schroyer@terracon.com)>  
**Subject:** 601 Ryan Street, Pewaukee GLC/NAR request

Hi Blaine,

Where are VP-2 and VP-3 in relation to the outside walls of the building? I am trying to understand where they are in relation to the footing walls.

**We are committed to service excellence.**

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

**Alice Egan**

Hydrogeologist

Wisconsin Department of Natural Resources  
Bureau for Remediation and Redevelopment  
Wisconsin Department of Natural Resources  
Phone: 414-263-8626

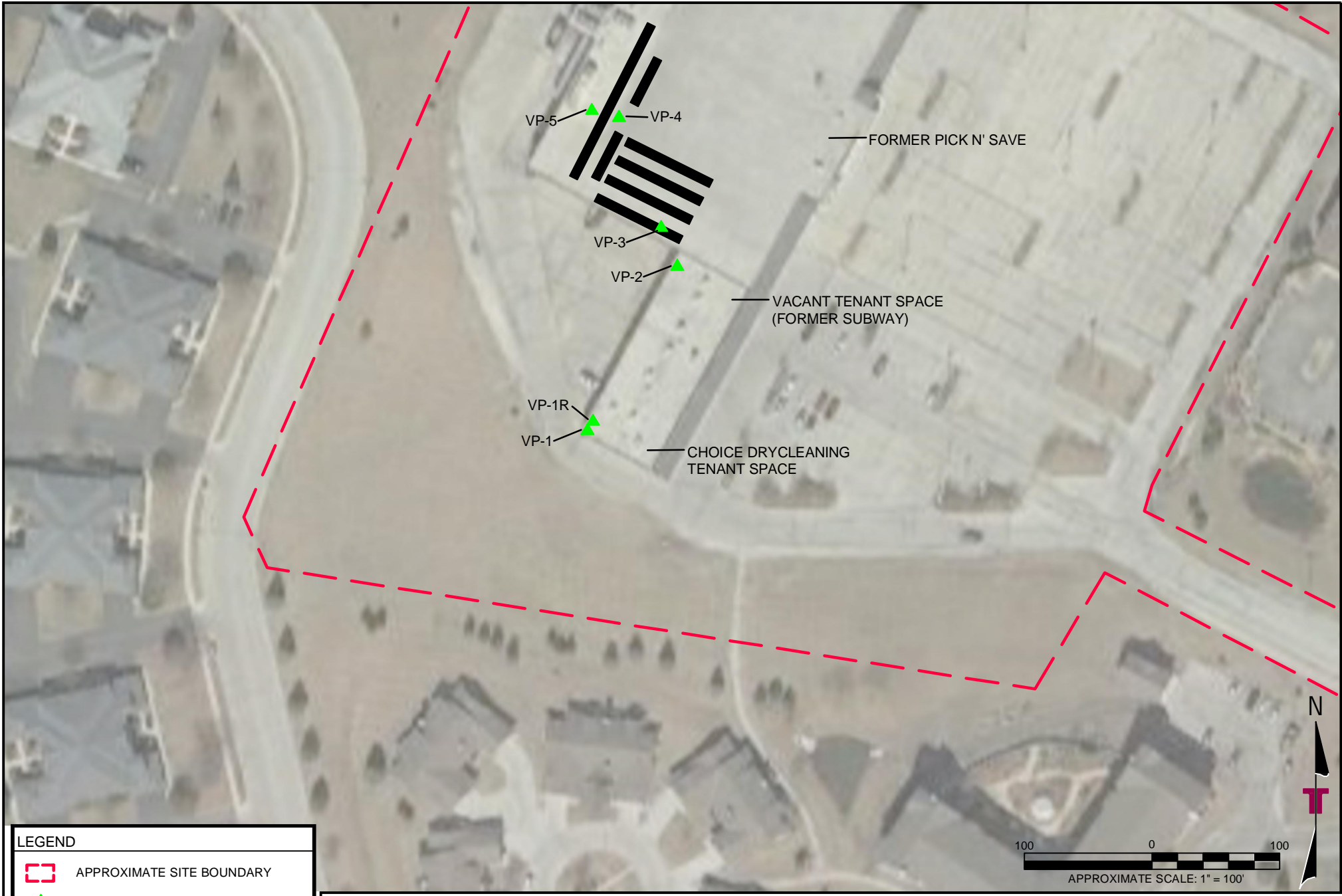
[alice.egan@wisconsin.gov](mailto:alice.egan@wisconsin.gov)



Terracon provides environmental, facilities, geotechnical, and materials consulting engineering services delivered with responsiveness, resourcefulness, and reliability.

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LEGEND	
	APPROXIMATE SITE BOUNDARY
	SUB-SLAB VAPOR SAMPLE POINT
	APPROXIMATE COOLER / FREEZER LOCATIONS

IMAGE SOURCE: GOOGLE EARTH PRO  
 DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr:	LPC	Project No.	58197210
Drawn By:	PJS	Scale:	AS SHOWN
Checked By:	EMN	File No.	58187210C1
Approved By:	BRS	Date:	12/2019

**Terracon**  
 Consulting Engineers and Scientists

9856 SOUTH 57th STREET FRANKLIN, WI 53132  
 PH. (414) 423-0255 FAX. (414) 423-0566

VAPOR SAMPLE LOCATIONS (11-20-2019)
LAKE COUNTRY SQUARE 601 RYAN STREET PEWAUKEE, WISCONSIN

EXHIBIT
4

February 10, 2020



Wisconsin Department of Natural Resources  
Southeast Region Office  
2300 North Martin Luther King Drive  
Milwaukee, Wisconsin 53212

Attention: Jennifer Dorman

Re: **No Action Required Request**  
Choice Cleaners – Lake Country Square Mall  
601 Ryan Street  
Pewaukee, Wisconsin  
Terracon Project No. 58197210

Dear Ms. Dorman:

Terracon Consultants, Inc. (Terracon) is submitting the attached Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request Form 4400-237 and the \$700 fee on behalf of Lake Country Square, LLC. We request the Wisconsin Department of Natural Resources (WDNR) consider issue a written response that a “No Action Required” (NAR) determination is appropriate.

Terracon was retained by Lake Country Square, LLC to complete a Limited Site Investigation (LSI) at the referenced site. The LSI was performed following the completion of a Phase I Environmental Site Assessment (ESA) by Terracon, which identified an on-going dry-cleaning operation as a recognized environmental condition (REC). The dry-cleaners was also identified as a controlled REC (CREC) due to residual contamination that was present when investigation was completed and the associated environmental repair program (ERP) case (BRRTS #02-68-226376) was closed in 2002. The LSI was conducted to evaluate soil, groundwater, and sub-slab soil vapor conditions, specifically in the vicinity of the active dry-cleaning operation. Following receipt of the initial vapor results, additional sub-slab soil vapor sampling was performed to confirm the original findings and evaluate soil vapor under other areas of the building.

VOCs were not detected in the soil samples submitted for laboratory analysis. Low concentrations of select VOCs were detected in the groundwater sample collected outside the building, down-gradient from and near the dry-cleaning machine. Comparing these results to the prior data, it does not appear that the continued operation of the dry-cleaners, since investigation was completed in 2002, has further impacted the site.

Several VOCs were detected at concentrations exceeding their respective limits of detection (LOD) in the sub-slab soil vapor samples. However, only dichlorodifluoromethane (a.k.a. Freon-12) was detected at concentrations exceeding its residential vapor risk screening level (VRSL) in the sub-slab soil vapor sample collected beneath the dry-cleaners.



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## No Action Required Request

Choice Cleaning – Lake Country Square Mall ■ Pewaukee, Wisconsin

February 10, 2020 ■ Terracon Project No. 58197210

Dichlorodifluoromethane was not detected in soil or groundwater samples at the site. The concentration of dichlorodifluoromethane decreased during the confirmation sampling, but still exceeded its residential VRSL.

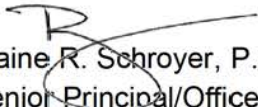
Per our discussion with WDNR, dichlorodifluoromethane may be present due to use of foam insulating material installed below grade. Terracon verified that we did not observe any indications of foam when we drilled through the slab to collect the sub-slab soil vapor samples. However, the drill bit we use is only 5/8-inch in diameter, so it is possible there is foam beneath the slab that was not observed in the drill cuttings. We also reached out to the former building owners. One of the owners, Mr. Art Kraemer, contacted Mr. Steve Boysa, who was involved with Redmond Construction when they constructed the building. According to Mr. Boysa, it was common practice to use foam at least along the footing walls. Given the time that has passed, he could not recall the specifics for this building. Mr. Boysa also verified they don't have photographs that might show the foam. Based on his comments, there is a reasonable chance that there was foam used as part of the building components and is the source of the dichlorodifluoromethane in the soil vapor.

On behalf of Lake Country Square, LLC, Terracon recommended reporting these findings to the WDNR. A cover letter, a completed Notification for Hazardous Substance Discharge (Non-Emergency) Form 4400-225, and the LSI Report dated December 9, 2019 were provided to WDNR on December 13, 2019. The letter requested that the WDNR classify the findings as a NAR case. We understand that WDNR has completed their review and upon receipt of this submittal and fee will issue a written response that a NAR determination is appropriate.

We appreciate the opportunity to provide this information to you and we look forward to receiving your letter of concurrence. Please contact us if you have questions regarding the information provided in the report.

Sincerely,

**Terracon**

  
Blaine R. Schroyer, P.E.  
Senior Principal/Office Manager

Attachments: WDNR Form 4400-237  
\$700 Check/WDNR Fee

BRS:brs/N:\Projects\2019\58197210\PROJECT DOCUMENTS (Reports-Letters-Drafts to Clients)\NAR Request.docx



**From:** Schroyer, Blaine R. <Blaine.Schroyer@terracon.com>  
**Sent:** Monday, February 03, 2020 8:30 AM  
**To:** Egan, Alice M - DNR  
**Subject:** RE: BRRTS Activity 02-68-226376

Thanks.

**Blaine R. Schroyer, P.E.**  
**Senior Principal | Office Manager**

**Terracon**

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**From:** Egan, Alice M - DNR <[Alice.Egan@wisconsin.gov](mailto:Alice.Egan@wisconsin.gov)>  
**Sent:** Monday, February 3, 2020 8:30 AM  
**To:** Schroyer, Blaine R. <[Blaine.Schroyer@terracon.com](mailto:Blaine.Schroyer@terracon.com)>  
**Subject:** RE: BRRTS Activity 02-68-226376

Hi Blaine,  
I will let you know this week.

---

**From:** Schroyer, Blaine R. <[Blaine.Schroyer@terracon.com](mailto:Blaine.Schroyer@terracon.com)>  
**Sent:** Saturday, February 01, 2020 12:42 PM  
**To:** Egan, Alice M - DNR <[Alice.Egan@wisconsin.gov](mailto:Alice.Egan@wisconsin.gov)>  
**Subject:** RE: BRRTS Activity 02-68-226376

Any decision, Alice?

**Blaine R. Schroyer, P.E.**  
**Senior Principal | Office Manager**

**Terracon**

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**From:** Schroyer, Blaine R.  
**Sent:** Monday, January 27, 2020 2:42 PM  
**To:** Egan, Alice M - DNR <[Alice.Egan@wisconsin.gov](mailto:Alice.Egan@wisconsin.gov)>  
**Subject:** BRRTS Activity 02-68-226376

Alice – In response to your question regarding whether foam insulation was present beneath the floor slab, Terracon verified that we did not observe any indications of foam when we drilled through the slab to collect the sub-slab soil vapor samples. However, the drill bit we use is only 5/8-inch in diameter, so it is possible there is foam beneath the slab that was not observed in the drill cuttings. We also reached out to the former building owners. One of the owners, Art Kraemer, contacted Steve Boysa, who was involved with Redmond Construction when they constructed the building. According to Steve, it was common practice to use foam at least along the footing walls. Given the time that has passed, he could

not recall the specifics for this building. Steve also verified they don't have any photographs that might show the foam. Based on his comments, there is a reasonable chance that there was foam used as part of the building components. Please let us know if you need any additional information. Thanks for your help with this one.

**Blaine R. Schroyer, P.E.**  
**Senior Principal | Office Manager**

**Terracon**

9856 South 57th Street | Franklin, Wisconsin 53132

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December 13, 2019



Wisconsin Department of Natural Resources  
Southeast Region Office  
2300 North Martin Luther King Drive  
Milwaukee, Wisconsin 53212

Attention: Jennifer Dorman

Re: **Notification For Hazardous Substance Discharge**  
Choice Cleaners – Lake Country Square Mall  
601 Ryan Street  
Pewaukee, Wisconsin  
Terracon Project No. 58197210

Dear Ms. Dorman:

Terracon Consultants, Inc. (Terracon) was retained by Lake Country Square, LLC to complete a Limited Site Investigation (LSI) at the referenced site. The LSI was performed following the completion of a Phase I Environmental Site Assessment (ESA) by Terracon, which identified an on-going dry-cleaning operation as a recognized environmental condition (REC). The dry-cleaners was also identified as a controlled REC (CREC) due to residual contamination that was present when investigation was completed and the associated environmental repair program (ERP) case (BRRTS #02-68-226376) was closed in 2002. The LSI was conducted to evaluate soil, groundwater, and sub-slab vapor conditions, specifically in the vicinity of the active dry-cleaning operation. Following receipt of the initial vapor results, additional sub-slab vapor sampling was performed to confirm the original findings and evaluate sub-slab soil vapor concentrations under other areas of the building.

VOCs were not detected in the soil samples submitted for laboratory analysis.

Cis-1,2-dichloroethene (DCE) and toluene were detected in the groundwater sample collected outside the building, down-gradient from and near the dry-cleaning machine. However, the toluene concentration was below its NR 140, Wisconsin Administrative Code (WAC), preventive action limit (PAL). The cis-1,2-DCE concentration exceeded its NR 140, WAC, PAL, but cis-1,2-DCE was known to be present in the soil beneath the building when the dry-cleaners was investigated, and the case was closed on July 30, 2002. The cis-1,2-DCE was likely present in the groundwater at that time. Comparing these results to the prior data, it does not appear that the continued operation of the dry-cleaners since investigation was completed in 2002 has further impacted the site.

Several VOCs were detected at concentrations exceeding their respective limits of detection (LOD) in the sub-slab vapor samples. However, only dichlorodifluoromethane (a.k.a. Freon-12) was detected at concentrations exceeding its vapor risk screening levels (VRSL).



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**Notification for Hazardous Substance Discharge**

Choice Cleaning – Lake Country Square Mall ■ Pewaukee, Wisconsin

December 13, 2019 ■ Terracon Project No. 58197210

Dichlorodifluoromethane is chemically similar to trichlorotrifluoroethane (a.k.a. Freon-113), which is associated with dry-cleaning operations. Dichlorodifluoromethane was not detected in soil or groundwater samples collected at the site, both during this LSI and during the closed ERP case investigation. When additional sub-slab soil vapor sampling was performed, including resampling beneath the dry-cleaner tenant space, the concentration of dichlorodifluoromethane decreased to a concentration below its small commercial VRSL. The site has and will continue to be used for commercial purposes, so the small commercial VRSLs are applicable. Fortunately, the dichlorodifluoromethane concentrations did not exceed any VRSLs in the sub-slab vapor samples collected elsewhere beneath the building.


Terracon recommended reporting these findings to the WDNR. The cis-1,2-DCE was likely present in the groundwater in 2002 when the ERP case was closed. The additional sub-slab soil vapor sampling shows that the concentrations are highly associated with the dry-cleaner operations and dichlorodifluoromethane is chemically similar to trichlorotrifluoroethane, which is associated with dry-cleaning operations. Because the extent of the dichlorodifluoromethane is limited, and it appears the on-going dry-cleaning operations have not further impacted the site, Terracon recommends no further investigation at this time.

We appreciate the opportunity to provide this information to you. Please contact us if you have questions regarding the information we have provided.

Sincerely,



Anthony J. LaBrasca  
Assistant Scientist



Blaine R. Schroyer, P.E.  
Principal/Office Manager

Attachments: Notification for Hazardous Substance Discharge (Non-Emergency) Form 4400-225

LSI Report dated December 9, 2019

AJL/BRS:ajl/N:\Projects\2019\58197210\PROJECT DOCUMENTS (Reports-Letters-Drafts to Clients)\Lake Country Square WDNR Release Notification.docx



**Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003**

**Notice: Hazardous substance discharges must be reported immediately** according to s. 292.11 Wis. Stats. Non-emergency hazardous substance discharges may be reported by telefaxing or e-mailing a completed report to the Department, or calling or visiting a Department office in person. If you choose to notify the Department by telefax or by email, you should use this form to be sure that all necessary information is included. However, use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than \$10 nor more than \$5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 – 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release Notification.

Complete this form. **TYPE or PRINT LEGIBLY.** NOTIFY appropriate DNR region (see next page) **IMMEDIATELY** upon discovery of a potential release from (**check one**):

- Underground Petroleum Storage Tank System (additional information may be required for Item 6 below)
- Aboveground Petroleum Storage Tank System
- Dry Cleaner Facility
- Other - Describe: \_\_\_\_\_

ATTN DNR: **R & R Program Associate**

Date DNR Notified: **12/13/2019**

**1. Discharge Reported By**

Name <b>Anthony J LaBrasca</b>	Firm <b>Terracon Consultants, Inc.</b>	Phone Number (include area code) <b>(414) 423-0255</b>
-----------------------------------	---	---

Mailing Address <b>9856 South 57th Street Franklin, WI 53132</b>	Email <b>Anthony.LaBrasca@Terracon.com</b>
---	---

**2. Site Information**

Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property.  
**Choice Cleaners - Lake Country Square Mall**

Location: Include street address, not PO Box. If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60.  
**601 Ryan Street**

Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city.  
**Village of Pewaukee**

County <b>Waukesha</b>	Legal Description: <b>NE ¼ of SW ¼ Section 05, Town 07N, Range 19</b> <input checked="" type="radio"/> E <input type="radio"/> W	WTM: <b>X 660197 Y 292763</b>
---------------------------	---	----------------------------------

**3. Responsible Party (RP) and/or RP Representative**

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

**Lake Country Square, LLC**

A local governmental unit claiming an exemption from state Spill Law and Solid Waste Management responsibilities for the discharge being reported, per Wis. Stat. §§ 292.11(9)(e) and 292.23, should: 1) check this box; 2) review [DNR publication RR-055](#); and 3) provide documentation to DNR that demonstrates compliance with the statutory requirements of the liability exemptions. Local governmental units may also request a fee-based liability clarification letter from DNR by using [DNR Form 4400-237](#).

Contact Person Name (if different) <b>Stan Hack</b>	Phone Number <b>(414) 803-6264</b>	Email <b>stan6364@gmail.com</b>
--	---------------------------------------	------------------------------------

Mailing Address <b>200 East Ravine Drive</b>	City <b>Mequon</b>	State <b>WI</b>	ZIP Code <b>53092</b>
---	-----------------------	--------------------	--------------------------

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

Contact Person Name (if different)	Phone Number	Email
------------------------------------	--------------	-------

Mailing Address	City	State	ZIP Code
-----------------	------	-------	----------

(continued)



# Notification For Hazardous Substance Discharge (Non-Emergency Only)

Form 4400-225 (R 06/17)

Page 2 of 3

## 4. Hazardous Substance Information

Identify hazardous substance discharged (check all that apply):

- |   |  |   |
|---|--|---|
| <input checked="" type="checkbox"/> VOCs<br><input type="checkbox"/> PCE<br><input type="checkbox"/> TCE<br><input checked="" type="checkbox"/> Other Chlorinated<br><input type="checkbox"/> Diesel<br><input type="checkbox"/> Fuel Oil<br><input type="checkbox"/> Gasoline<br><input type="checkbox"/> Hydraulic Oil<br><input type="checkbox"/> Jet Fuel | <i>(VOCs continued)</i><br><input type="checkbox"/> Mineral Oil<br><input type="checkbox"/> Waste Oil<br><input type="checkbox"/> Petroleum-Unknown Type<br><input type="checkbox"/> PAHs<br><input type="checkbox"/> PCBs<br><input type="checkbox"/> Cyanide<br><input type="checkbox"/> Leachate<br><input type="checkbox"/> Manure | <input type="checkbox"/> Metals<br><input type="checkbox"/> Arsenic<br><input type="checkbox"/> Chromium<br><input type="checkbox"/> Lead<br><input type="checkbox"/> Other: _____<br><input type="checkbox"/> Pesticides: _____<br><input type="checkbox"/> Fertilizer: _____<br><input type="checkbox"/> RCRA Hazardous Waste: _____<br><input type="checkbox"/> Other: _____<br><input type="checkbox"/> Unknown |
|---|--|---|

## 5. Impacts to the Environment Information

Enter "K" for known/confirmed or "P" for potential for all that apply.

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Air Contamination                       | <input type="checkbox"/> Fire Explosion Threat                | <input type="checkbox"/> Soil Contamination                      |
| <input type="checkbox"/> Co-mingled (Petroleum & Non-Petroleum)  | <input type="checkbox"/> Free Product                         | <input type="checkbox"/> Soil Gas Contamination                  |
| <input type="checkbox"/> Contamination in Fractured Bedrock      | <input checked="" type="checkbox"/> Groundwater Contamination | <input checked="" type="checkbox"/> Sub-slab Vapor Contamination |
| <input type="checkbox"/> Contamination Within 1 Meter of Bedrock | <input type="checkbox"/> Off-Site Contamination               | <input type="checkbox"/> Surface Water Contamination             |
| <input type="checkbox"/> Contaminated Private Well               | <input type="checkbox"/> Sanitary Sewer Contamination         | <input type="checkbox"/> Within 100 ft of Private Well           |
| <input type="checkbox"/> Contaminated Public Well                | <input type="checkbox"/> Storm Sewer Contamination            | <input type="checkbox"/> Within 1000 ft of Public Well           |
| <input type="checkbox"/> Contamination in Right of Way           | <input type="checkbox"/> Sediment Contamination               |  |
|  | Other (specify): _____  |  |

Contamination was discovered as a result of:

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Tank closure assessment | <input checked="" type="checkbox"/> Site assessment | <input type="checkbox"/> Other - Describe: _____ |
| Date <input type="text"/>                        | Date <input type="text" value="12/9/2019"/>         | Date <input type="text"/>                        |

Lab results:  Lab results will be faxed upon receipt  Lab results are attached

Additional Comments: Include a brief description of immediate actions taken to halt the release and contain or cleanup hazardous substances that have been discharged.

## 6. Federal Energy Act Requirements (Section 9002(d) of the Solid Waste Disposal Act (SWDA))

	Source	Cause
For all confirmed releases from USTs occurring after 9/30/2007 please provide the following information:  <input checked="" type="checkbox"/> Does not apply.	<input type="checkbox"/> Tank <input type="checkbox"/> Piping <input type="checkbox"/> Dispenser <input type="checkbox"/> Submersible Turbine Pump <input type="checkbox"/> Delivery Problem  <input type="checkbox"/> Other (specify): _____	<input type="checkbox"/> Spill <input type="checkbox"/> Overfill <input type="checkbox"/> Corrosion <input type="checkbox"/> Physical or Mechanical Damage <input type="checkbox"/> Installation Problem <input type="checkbox"/> Other (does not fit any of above) <input type="checkbox"/> Unknown

Contact information to report non-emergency releases in DNR's five regions are as follows:

- Northeast Region (FAX: 920-662-5413); Attention – R&R Program Associate:** DNRRNER@wisconsin.gov  
 Brown, Calumet, Door, Fond du Lac (except City of Waupun - see South Central Region), Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Sheboygan, Waupaca, Waushara, Winnebago counties
- Northern Region (FAX: 715-623-6773); Attention -- R&R Program Associate:** DNRRRNOR@wisconsin.gov  
 Ashland, Barron, Bayfield, Burnett, Douglas, Forest, Florence, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn counties
- South Central Region (FAX: 608-273-5610); Attention – R&R Program Associate:** DNRRRSCR@wisconsin.gov  
 Columbia, Dane, Dodge, Fond du Lac (City of Waupun only), Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk, Walworth counties
- Southeast Region (FAX: 414-263-8550); Attention -- R&R Program Associate:** DNRRRSER@wisconsin.gov  
 Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha counties



## Notification For Hazardous Substance Discharge (Non-Emergency Only)

Form 4400-225 (R 06/17)

Page 3 of 3

**West Central Region (FAX: 715-839-6076); Attention – R&R Program Associate: [DNRRRWCR@wisconsin.gov](mailto:DNRRRWCR@wisconsin.gov)**

Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, LaCrosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, Wood counties

# Limited Site Investigation

Lake Country Square Property  
601 Ryan Street  
Pewaukee, Waukesha County, Wisconsin

December 9, 2019  
Terracon Project No. 58197210



**Prepared for:**

Lake Country Square Center, LLC  
Mequon, Wisconsin

**Prepared by:**

Terracon Consultants, Inc.  
Franklin, Wisconsin

Offices Nationwide  
Employee-Owned

Established in 1965  
[terracon.com](http://terracon.com)

# Terracon

Geotechnical ■ Environmental ■ Construction Materials ■ Facilities



December 9, 2019

Lake Country Square Center, LLC  
200 East Ravine Drive  
Mequon, Wisconsin 53092

c/o von Briesen & Roper, s.c.

Attention: Mr. Gerard J. Flood  
Phone: (414) 287-1580  
Email: jflood@vonbriesen.com


**Re: Limited Site Investigation**  
Lake Country Square  
601 Ryan Street  
Pewaukee, Waukesha County, Wisconsin  
Terracon Project No. 58197210

Dear Mr. Flood:

At your request, Terracon Consultants, Inc. (Terracon) has completed a Limited Site Investigation (LSI) for the above-referenced property. This investigation was performed in general accordance with the scope of services detailed in Terracon Proposal No. P58197210 dated October 10, 2019 and Supplement to Agreement for Services dated November 14, 2019.

Terracon appreciates the opportunity to provide these services for you. If you have any questions or comments regarding our report, please contact us at your earliest convenience.

Sincerely,  
**Terracon Consultants, Inc.**

  
Anthony J. LaBrasca  
Assistant Scientist

  
Blaine R. Schroyer, P.E.  
Principal/Office Manager

AJL/BRS:ajl/N:\Projects\2019\58197210\PROJECT DOCUMENTS (Reports-Letters-Drafts to Clients)\Lake Country Square LSI.docx



Terracon Consultants, Inc. 9856 South 57<sup>th</sup> Street Franklin, Wisconsin 53132  
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## APPENDICES

<b>Appendix A:</b>	Exhibits
<b>Appendix B:</b>	Soil Boring Log and Borehole Abandonment Forms
<b>Appendix C:</b>	Tables
<b>Appendix D:</b>	Photographic Log
<b>Appendix E:</b>	Laboratory Analytical Reports, Chain of Custody Forms, and Sub-Slab Vapor Sampling Sheets

## LIMITED SITE INVESTIGATION

### LAKE COUNTRY SQUARE PROPERTY 601 RYAN STREET PEWAUKEE, WAUKESHA COUNTY, WISCONSIN

TERRACON PROJECT NO. 58197210  
DECEMBER 9, 2019

## 1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) has completed a Limited Site Investigation (LSI) at the site located at 601 Ryan Street, Pewaukee, Wisconsin (Exhibit 1, Appendix A). The objective of the LSI was to investigate the potential for subsurface contamination related to the recognized environmental conditions (RECs) identified in Terracon's May 10, 2019 Phase I Environmental Site Assessment (ESA).

### 1.1 Background Information

Terracon prepared a Phase I Environmental Site Assessment (ESA) of the site dated May 10, 2019 (Terracon Project No. 58197064). The site is located at 601 Ryan Street in the Village of Pewaukee, Waukesha County, Wisconsin. The site consists of an irregularly shaped lot that is 10.998 acres in size, identified as parcel #PWV0883991. The parcel includes a main parking lot/building area on the west portion of the site, with an access road that extends west from Ryan Street, on the east portion. The main portion of the parcel is improved with an approximately 64,630-square-foot multi-tenant retail building, built in 1990, known as Lake Country Square, and associated surrounding parking lot. The on-site multi-tenant retail facility includes a large anchor store tenant space currently occupied by a mostly-vacant grocery store, which is being utilized as warehouse space by Pick N' Save. The smaller multi-tenant portion of the building is currently occupied by an Allstate insurance office, OTT Chiropractic, Nails 'N Tan salon, Goodwill donation center, Choice Dry Cleaner, and Cost Cutters hair salon. Two of the tenant spaces are currently vacant including a former restaurant space.

An ERP case (BRRTS #02-68-226376) was opened at the site on May 27, 1999 in response to a Phase II ESA conducted at the site, which identified chlorinated solvents, including perchloroethylene (PCE or PERC), trichloroethylene (TCE), and dichloroethenes (DCE) in soil samples taken from the interior of the site building. Groundwater was found to be impacted with in excess of NR 140, Wisconsin Administrative Code (WAC), Enforcement Standards (ES) and Preventive Action Limits (PAL). Groundwater impacts were later detected below regulatory standards, except for one PAL exceedance for PCE. Groundwater was determined to be between 8-11 feet below ground surface (bgs), flowing to the southwest. Site-specific residual contaminant



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Lake Country Square Property ■ Pewaukee, Wisconsin  
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levels (RCLs) were developed for the residual soil impacts underneath the building, which identified that the residual soil concentrations were below site-specific RCLs for both the non-industrial direct contact and soil-to-groundwater pathways. Given these findings, the case was closed by the WDNR on July 30, 2002, with an NR 140 PAL exemption for PCE, but no further action required. Vapor intrusion into the on-site building related to the residual chlorinated solvent soil impacts left in place under the on-site building did not appear to have been evaluated.

The following recognized environmental condition (REC) was identified in connection with the site:

- The dry-cleaner that has operated at the site since the site was developed is considered a REC due to: 1) its continued operations since investigation was completed in 2002 and 2) because the vapor intrusion pathway was not investigated.

Terracon recommended additional investigation to evaluate whether the above-referenced REC has impacted the site.

## 1.2 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not restricted by ASTM E1903-11.

## 1.3 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable, or not present during these services, and we cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this investigation.

Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

## **1.4 Reliance**

This report is prepared for the exclusive use and reliance of Lake Country Square Center, LLC. Use or reliance by any other party is prohibited without the written authorization of Lake Country Square Center, LLC and Terracon Consultants, Inc.

Reliance on this report by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and the Agreement for Services.

## **2.0 FIELD ACTIVITIES**

### **2.1 Health and Safety Plan**

Terracon is committed to the safety of all its employees. As such, and in accordance with our *Incident and Injury Free*® safety goals, Terracon developed a safety plan to be used by our personnel during field services. Prior to commencement of on-site activities, Terracon held a brief health and safety meeting to review health and safety needs for this specific project. We performed fieldwork in a United States Environmental Protection Agency (USEPA) Level D work uniform consisting of hard hats, safety glasses, protective gloves, and steel toed boots.

### **2.2 Locate Utilities in Work Area**

In an effort to locate utilities in the work area, Terracon contacted Diggers Hotline and documented the locations of underground utilities on-site and near the site boundary. A private utility locating service was subcontracted to locate private utilities at the site.

### **2.3 Soil Sampling**

Terracon's field activities were conducted on October 25, 2019. The proposed scope of services included advancement of one soil boring (P-1). Soil boring P-1 was located west-southwest (hydrogeologically down-gradient) of the dry-cleaning operation. The soil boring location is depicted on Exhibit 2, Appendix A.

The soil boring was advanced to 16 feet bgs. Soil samples were collected continuously to the boring terminus. The first evidence of groundwater was encountered at a depth of approximately 10 feet bgs during soil sampling. Soil characteristics (e.g. texture, color) were noted. No evidence of staining or unusual odors were noted in the soil samples. Soil samples were screened using a photoionization detector (PID) (RAE Systems, MiniRAE 3000) equipped with a 10.6 electron volt (e.V.) lamp to detect the presence of volatile organic compounds (VOCs). The PID was calibrated



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according to the manufacturer's instructions using isobutylene gas at a concentration of 100 parts per million by volume (ppmv) prior to beginning and during the investigation.

Surficial material consisted of approximately 6 inches of asphalt overlying approximately one foot of base course fill. Beneath the fill, was approximately 4 feet of brown, dry, sandy clay with trace amounts of dolomitic gravel. This material was overlying approximately one foot of silty clay, which had increased levels of moisture and exhibited higher levels of cohesiveness. A stiffer, less cohesive, sandy clay with trace amounts of gravel was then encountered from approximately 6 feet bgs to the boring terminus of 16 feet bgs. The soil was noted to be soft and wet at approximately 10 feet bgs and was saturated at 12 feet bgs to the boring terminus. Elevated PID readings were not observed; therefore, the soil samples were collected from below fill material at 2 feet and at 9 feet bgs, the depth immediately above the observed groundwater table. Detailed soil descriptions and PID readings are presented on the soil boring logs included in Appendix C. Select photographs taken during the LSI are included in Appendix D.

The soil samples were collected in laboratory-supplied containers, placed in an ice chest to cool to approximately 4 degrees Celsius (°C), and transferred under chain of custody protocol to a Wisconsin-certified laboratory for analysis of VOCs by USEPA Method 8260.

## 2.4 Groundwater Sampling

Terracon constructed a temporary groundwater monitoring well within the soil boring by installing a 5-foot section of 1-inch diameter polyvinyl chloride (PVC) well screen in the open borehole with a sand filter-pack. The groundwater was purged for up to approximately 15 minutes by inserting disposable tubing into the temporary groundwater monitoring well and extracting water with a peristaltic pump to obtain a sample with low turbidity. After purging, the depth to groundwater was observed at approximately 12 feet bgs. The groundwater sample was collected from the disposable tubing after purging was completed.

The groundwater sample was collected in laboratory-supplied containers, placed in an ice chest to cool to approximately 4°C, and transferred under chain of custody protocol to a Wisconsin-certified laboratory for analysis of VOCs.

After sampling, the temporary groundwater monitoring well was removed, and the boring was abandoned in accordance with NR 141, Wisconsin Administrative Code (WAC). The abandonment form is located in Appendix C.

## 2.5 Sub-Slab Vapor Sampling

One sub-slab vapor monitoring point (VP-1) was installed near the dry-cleaning machine. An approximate layout of the sampling location and relevant site features are depicted on Exhibit 3, Appendix A.



The sub-slab vapor monitoring point consisted of a pre-fabricated Vapor Pin™ sample insert, constructed using a hammer drill in accordance with Terracon's and Cox Colvin standard operating procedures. The sampler insert was cleaned using an Alconox and distilled water solution before installation to remove residues and contaminants left over from the fabrication processes. A 5/8-inch diameter drill bit was advanced completely through the concrete slab and into the substrate below the concrete. The insert was then installed in the hole drilled through the concrete floor slab. A Vapor Pin™ leak-tight sub-slab gas sampling insert was subsequently installed into the concrete borehole, and the insert was hammered into the concrete for a tight fit.

The integrity of the sample point was evaluated prior to sampling by conducting a leak test. The leak test was conducted by using a helium shroud over the vapor monitoring point for 15 minutes and monitoring the amount of helium in the sub-slab monitoring point. After leak testing verified helium was not leaking beneath the slab, a sample was collected by connecting the sample point to the Summa canister with dedicated tubing and opening the valve on the canister. Terracon collected the sub-slab vapor sample over a 30-minute period. The sample was collected in a laboratory-prepared 6-liter Summa canister with a flow regulator calibrated for 30-minute collection. The sub-slab vapor sample/Summa canister was submitted under chain of custody protocol to a Wisconsin-certified laboratory for analysis of VOCs using EPA Method TO-15.

Sub-slab vapor point VP-1 contained an elevated concentration of dichlorodifluoromethane (Freon-12). The presence of the dichlorodifluoromethane was not anticipated as it is commonly used as a refrigerant and is not known to be associated with dry cleaning operations. However, a related chemical, trichlorotrifluoroethane, is used in dry cleaning operations. Another possible source of dichlorodifluoromethane is the compressors, which cooled freezers and coolers at the former Pick N' Save to the north.

To verify and investigate the extent of the dichlorodifluoromethane, vapor monitoring points VP-1A and VP-2 through VP-5 were installed and sampled on November 20, 2019, as described above. VP-1A was installed at the approximate location of VP-1, VP-2 was installed in a vacant unit (former Subway) located between VP-1 and Pick N' Save, and VP-3 through VP-5 were installed at the former Pick N' Save. There were no chemicals and no cracks in the vacant former Subway space. The former Pick N' Save contained no chemicals; however, multiple cracks and holes were observed in the floor slab apparently related to the electrical and piping conduits for the former freezer/cooler units.

## **3.0 ANALYTICAL RESULTS AND DISCUSSION**

### **3.1 Soil Analytical Data**

The Wisconsin Department of Natural Resources (WDNR) has established guidance for the calculation of soil residual contaminant levels (RCLs) for direct-contact exposure and the



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protection of groundwater. Background threshold values (BTVs) have also been established for some metals. The guidance document, *Soil Residual Contaminant Level Determinations using the US EPA Regional Screening Level Web Calculator*, PUB-RR-890, dated January 2014 (with input parameters updated as of December 2018) was used to establish RCLs for this site.

VOCs were not detected in the soil samples at concentrations above the analytical limits of detection (LOD). The laboratory report and chain of custody form are located in Appendix E.

### 3.2 Groundwater Analytical Data

The WDNR has established groundwater quality standards, which are set forth in NR 140, WAC. For each regulated compound, two standards have been established, the Enforcement Standard (ES) and the Preventive Action Limit (PAL). In general, if the regulated contaminant exceeds its PAL, but is below its ES, the WDNR may require additional investigation/continued monitoring. If the regulated contaminant is above its ES, the WDNR may require additional investigation, continued monitoring, and/or remediation.

Toluene and cis-1,2-DCE were detected at concentrations exceeding their LODs in the groundwater sample. The detected concentration of toluene was below its analytical limit of quantitation (LOQs) and its NR 140, WAC, PAL. Cis-1,2-DCE was detected at a concentration of 26.9 micrograms per liter (ug/L), which exceeds its NR 140, WAC, PAL of 7 ug/L but is below its NR 140, WAC, ES of 70 ug/L. Groundwater results are presented in Table 1, Appendix B. The laboratory analytical report and chain of custody form are included in Appendix D.

### 3.3 Vapor Analytical Data

The WDNR prepared the document titled *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, (pub-RR-800) dated January 2018 as guidance to identify conditions and assess potential vapor intrusion pathways. The WDNR uses indoor vapor action levels (VALs) based on USEPA screening level tables, applying a  $1 \times 10^{-5}$  excess lifetime cancer risk.

Terracon compared the soil vapor analytical results to the EPA Regional Screening Level Indoor Air Vapor Action Levels for Various VOCs (November 2017). Vapor Risk Screening Levels (VRSLs) were calculated by applying an attenuation factor to the VALs for comparison with the analytical results based on the WDNR guidance document. Small commercial building VRSLs are considered applicable for this scenario.

Numerous VOCs were detected at concentrations exceeding their analytical LODs in the sub-slab vapor samples. However, dichlorodifluoromethane was the only compound detected at concentrations exceeding a VAL. The detected concentration of dichlorodifluoromethane was 180,000 micrograms per cubic meter (ug/m<sup>3</sup>), which is well above its small commercial building



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VRSL. Since there was no known source of dichlorodifluoromethane associated with the dry-cleaners, Terracon requested the laboratory re-evaluate the reported detection. According to the laboratory, "there is no evidence to suggest that the elevated detection of dichlorodifluoromethane was from a laboratory source."

The sampling performed at VP-1A and VP-2 through VP-5 verified the elevated concentration of dichlorodifluoromethane in VP-1A. None of the other VOCs detected exceed their VRSLs at VP-1A and VP-2 through VP-5. The concentration of dichlorodifluoromethane detected (13,XXX ug/m<sup>3</sup>) in VP-1A is an order of magnitude lower than originally detected in VP-1. However, it is not abnormal for vapor results to vary greatly based on atmospheric conditions.

## 4.0 SUMMARY AND RECOMMENDATIONS

The objective of the LSI was to investigate the potential for subsurface contamination related to the RECs identified in Terracon's April 16, 2019 Phase I ESA. Specifically, the sampling was intended to evaluate whether a release of dry-cleaning solvents has occurred since the site was last investigated, including whether soil gas is impacted.

VOCs were not detected in the soil samples submitted for laboratory analysis. VOCs, including cis-1,2-DCE and toluene, were detected at concentrations exceeding their respective LODs in the groundwater sample. The concentration of toluene was below its LOQ and NR 140, WAC, standards. The concentration of cis-1,2-DCE exceeds its NR 140, WAC, PAL. However, when the prior investigation was completed, DCE was known to be present in the soil beneath the building. Comparing these results to the prior data, it does not appear that the continued operation of the dry-cleaners since investigation was completed in 2002 has further impacted the site.

Several VOCs were detected at concentrations exceeding their respective LODs in sub-slab vapor samples. However, only dichlorodifluoromethane was detected at concentrations exceeding applicable VRSLs. There was no known source of dichlorodifluoromethane associated with the dry-cleaners, although it is chemically similar to trichlorotrifluoroethane, which is associated with dry-cleaning operations. And, while dichlorodifluoromethane is a refrigerant and there were refrigeration systems associated with the Pick N' Save to the north, the concentrations of dichlorodifluoromethane did not indicate a source area other than the dry-cleaner.

Terracon recommends reporting these findings to the WDNR. Reporting these detections is required per Section 292.11, Wis. Stats, which is also known as the "Spill Law". The statute requires that a person who possesses or controls a hazardous substance, which is discharged or who causes the discharge of a hazardous substance, shall notify the department immediately of any discharge not exempted by law.

Since the detected concentration of cis-1,2-DCE in the groundwater is likely associated with the closed ERP case, we expect that the WDNR will not require further investigation with respect to

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the dry-cleaning solvents. However, the WDNR may open a new case to request further related to the dichlorodifluoromethane detected in the sub-slab soil vapor. The additional sub-slab soil vapor sampling shows that the concentrations are highly associated with the dry-cleaner operations and are variable. We anticipate the WDNR may require further investigation associated with the dichlorodifluoromethane or close the case without further investigation, provided the presence of the dichlorodifluoromethane is documented and the site use remains commercial.

## 5.0 GENERAL COMMENTS

The analysis and opinions expressed in this report are based upon data obtained during this investigation and laboratory chemical analyses at the indicated locations discussed in this report. This report does not reflect variations in subsurface stratigraphy, hydrogeology, and contaminant distribution that may occur across the site. Actual subsurface conditions may vary and may not become evident without further investigation.

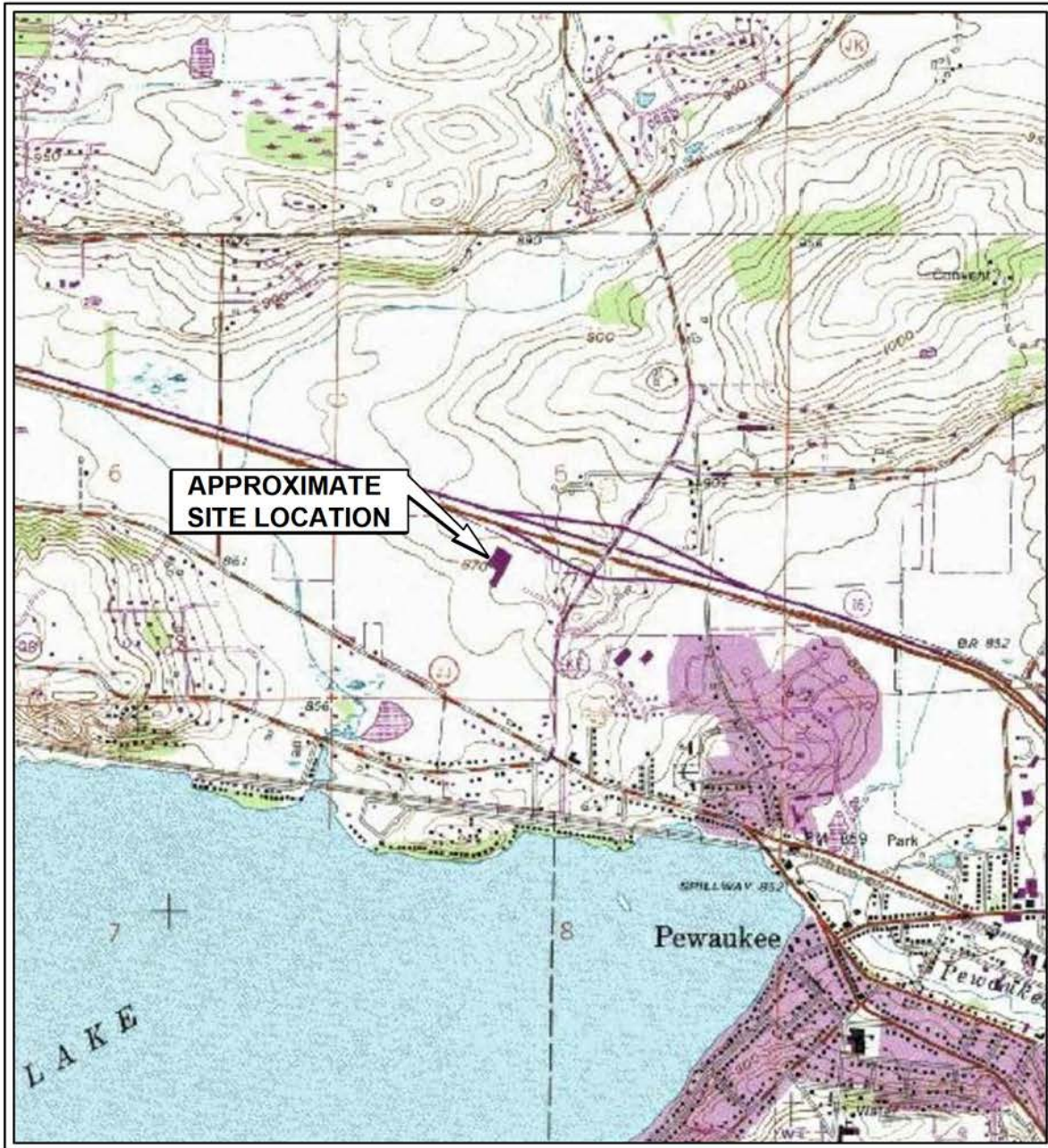
This report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental engineering practices. No warranties, express or implied are intended or made.

In the event any changes in the nature or location of suspected sources of contamination as outlined in this report are observed, the conclusions and recommendations contained in this report shall not be valid unless these changes are reviewed, and the opinions of this report are modified or verified in writing by Terracon.

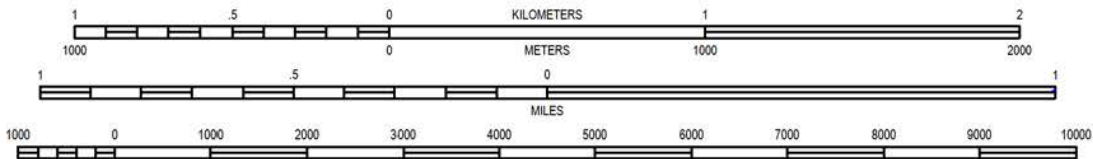


**APPENDIX A**

**EXHIBITS**



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

HARTLAND QUADRANGLE  
WAUKESHA COUNTY ~ WISCONSIN

1994

7.5 MINUTE SERIES (TOPOGRAPHIC)

DIAGRAM IS FOR GENERAL LOCATION ONLY AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr:	PJS	Project No.	58197064
Drawn By:	PJS	Scale:	AS SHOWN
Checked By:	EMN	File No.	58197064C1
Approved By:	EMN	Date:	05/2019

**Terracon**  
Consulting Engineers and Scientists  
9856 SOUTH 57th STREET FRANKLIN, WI 53132  
PH. (414) 423-0255 FAX. (414) 423-0566

TOPOGRAPHIC MAP

LAKE COUNTRY SQUARE  
601 RYAN STREET  
PEWAUKEE, WISCONSIN


EXHIBIT

1

(EX1 TOPO)





LEGEND	
	APPROXIMATE SITE BOUNDARY
IMAGE SOURCE: GOOGLE EARTH PRO DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES	

Project Mngr:	AJL	Project No.:	58197210
Drawn By:	PJS	Scale:	AS SHOWN
Checked By:	AJL	File No.:	58187210C1
Approved By:	BRS	Date:	11/2019

**Terracon**  
Consulting Engineers and Scientists

9856 SOUTH 57th STREET FRANKLIN, WI 53132  
PH. (414) 423-0255 FAX. (414) 423-0566

SITE DIAGRAM	
LAKE COUNTRY SQUARE 601 RYAN STREET PEWAUKEE, WISCONSIN	

EXHIBIT
2

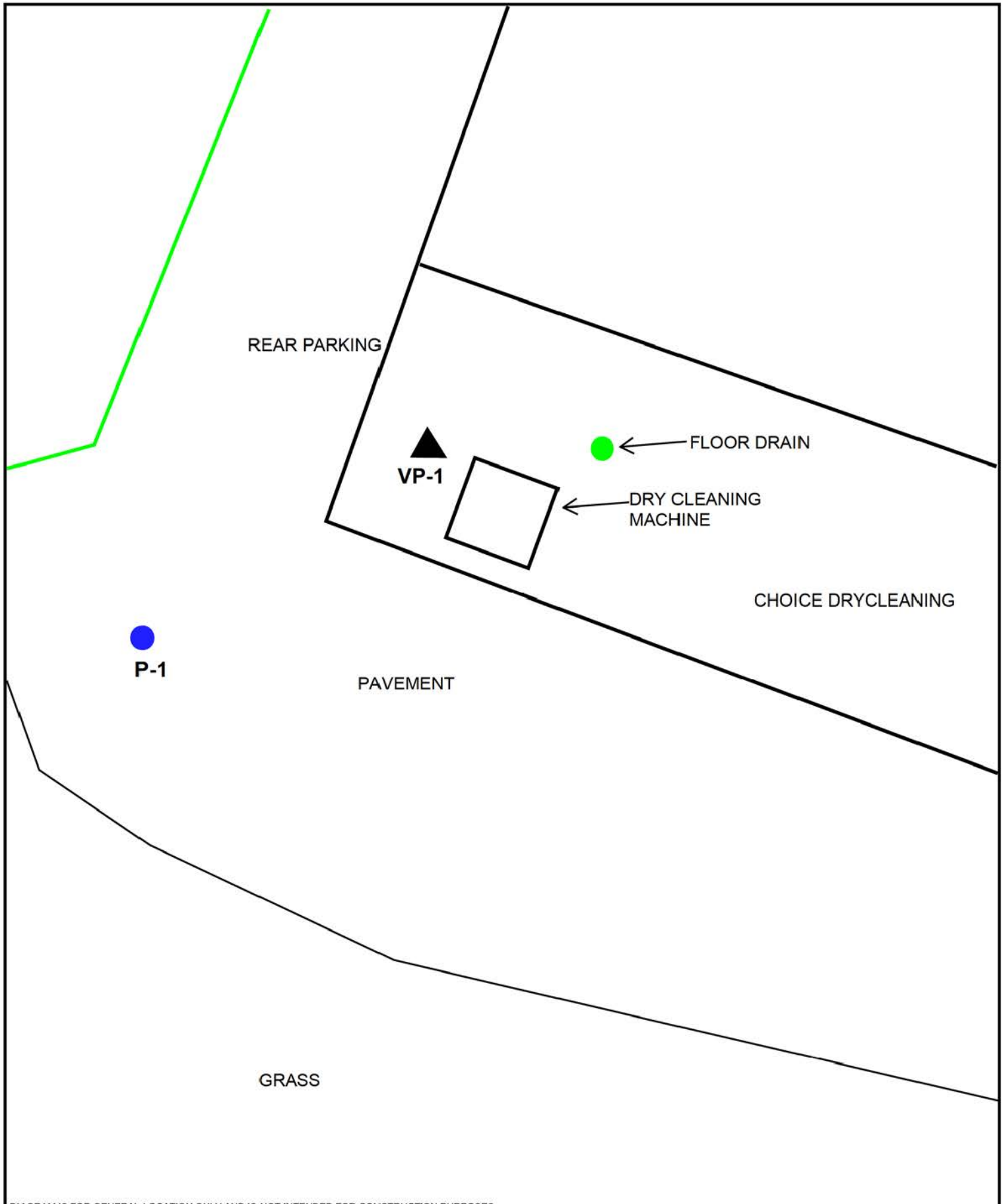


DIAGRAM IS FOR GENERAL LOCATION ONLY AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

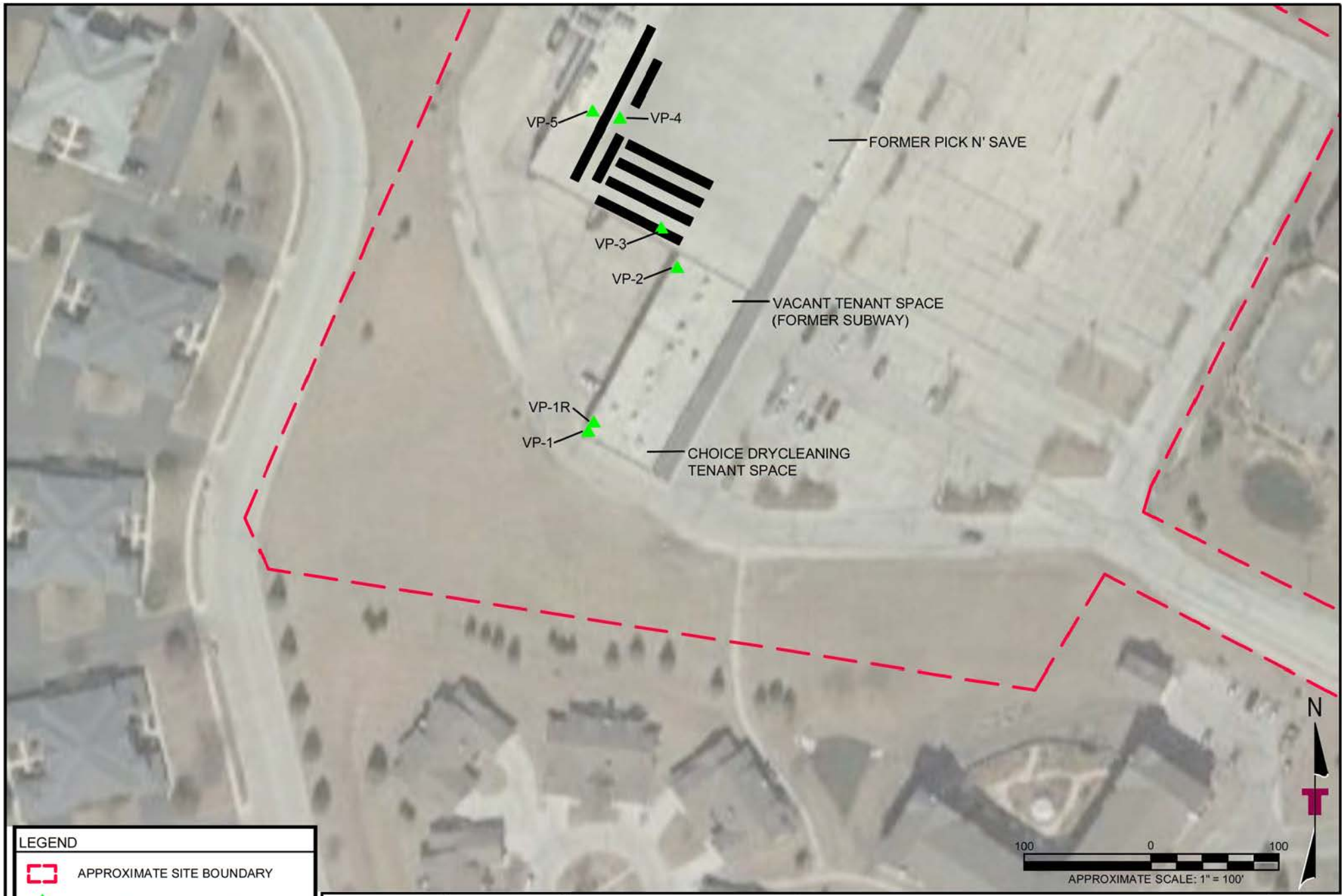
Project Mng:	AJL	Project No.	58197210
Drawn By:	AJL	Scale:	AS SHOWN
Checked By:	TPW	File No.	58197210C1
Approved By:	BRS	Date:	11/2019

**Terracon**  
 Consulting Engineers and Scientists  
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VAPOR INTRUSION MAP
LAKE COUNTRY SQUARE 601 RYAN STREET PEWAUKEE, WISCONSIN

EXHIBIT
3








LEGEND	
	APPROXIMATE SITE BOUNDARY
	SUB-SLAB VAPOR SAMPLE POINT
	APPROXIMATE COOLER / FREEZER LOCATIONS

IMAGE SOURCE: GOOGLE EARTH PRO  
 DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mgr:	LPC	Project No.	58197210
Drawn By:	PJS	Scale:	AS SHOWN
Checked By:	EMN	File No.	58187210C1
Approved By:	BRS	Date:	12/2019

**Terracon**  
 Consulting Engineers and Scientists

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VAPOR SAMPLE LOCATIONS (11-20-2019)
LAKE COUNTRY SQUARE 601 RYAN STREET PEWAUKEE, WISCONSIN

EXHIBIT
4

**APPENDIX B**

**SOIL BORING LOG AND BOREHOLE  
ABANDONMENT FORM**



Route To: Watershed/Wastewater  Waste Management   
Remediation/Redevelopment  Other

Facility/Project Name <b>58197210 Lake County Square Center LLC</b>		License/Permit/Monitoring Number		Boring Number <b>P-1</b>	
Boring Drilled By: Name of crew chief (first, last) and Firm <b>Dan Bendorf Probe Technologies</b>		Date Drilling Started <b>10/25/2019</b>		Date Drilling Completed <b>10/25/2019</b>	
Drilling Method <b>DIRECT PUSH</b>		WT Unique Well No.		DNR Well ID No.	
Common Well Name		Final Static Water Level <b>Feet MSL</b>		Surface Elevation <b>Feet MSL</b>	
Borehole Diameter <b>2 inches</b>		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/> ) or Boring Location <input type="checkbox"/>		Local Grid Location	
State Plane <b>N, E S/C/N</b>		Lat _____"		<input type="checkbox"/> N <input type="checkbox"/> E	
1/4 of _____		1/4 of Section _____		T _____ N, R _____	
Long _____"		Feet <input type="checkbox"/> S <input type="checkbox"/> W		Feet <input type="checkbox"/> E <input type="checkbox"/> W	
Facility ID		County <b>Waukesha</b>		County Code <b>68</b>	
		Civil Town/City/ or Village <b>Pewaukee</b>			

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
1	48 46		0.0 - 1.5	Asphalt Basecourse				<1							
			1.5 - 3.0	Sandy Clay, trace dolomite gravel, Dry	CL			<1							* Sample Submitted
2	48 28		3.0 - 6.0	Silty Clay, gray to brown, soft, cohesive, trace fine to medium grained sand, moist	CL-ML			<1							
3	48 41		6.0 - 9.0	Sandy Clay, light brown, with gravel < 1/2", sub angular, slightly cohesive, dry				<1							* Sample Submitted
			9.0 - 10.5	....softer and wet				<1							
4	48 45		10.5 - 12.0	...saturated	CL			<1							
			12.0 - 13.5					<1							
			13.5 - 15.0					<1							
				End of Boring @ 16'											

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature 	Firm <b>Terracon Consultants, Inc.</b> 9856 South 57th Street / Franklin, Wisconsin 53132	Tel: 414-423-0255 Fax: 414-423-0566
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**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**Verification Only of Fill and Seal**

**Route to DNR Bureau:**

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County WAUKESHA		WI Unique Well # of Removed Well		Hicap #	
Latitude / Longitude (see instructions)		Format Code		Method Code	
_____ N		<input type="checkbox"/> DD		<input type="checkbox"/> GPS008	
_____ W		<input type="checkbox"/> DDM		<input type="checkbox"/> SCR002	
_____ 1/4		Section		Range <input type="checkbox"/> E	
or Gov't Lot #		Township		<input type="checkbox"/> W	
Well Street Address 601 RYAN STREET		Well ZIP Code		Mailing Address of Present Owner	
Well City, Village or Town VILLAGE OF PEWAUKEE		Lot #		City of Present Owner	
Subdivision Name		Reason for Removal from Service TEMPORARY WELL		WI Unique Well # of Replacement Well	

Facility Name LAKE COUNTRY SQUARE		
Facility ID (FID or PWS)		
License/Permit/Monitoring #		
Original Well Owner		
Present Well Owner		
Mailing Address of Present Owner		
City of Present Owner	State	ZIP Code

**3. Filled & Sealed Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) 10/25/2019
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.
<input checked="" type="checkbox"/> Borehole / Drillhole	
Construction Type:	
<input type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)
<input checked="" type="checkbox"/> Other (specify):	DIRECT PUSH SOIL BORING
Formation Type:	
<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock
Total Well Depth From Ground Surface (ft.) 16	Casing Diameter (in.) 1.25
Lower Drillhole Diameter (in.) 2	Casing Depth (ft.) 16
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
If yes, to what depth (feet)?	Depth to Water (feet) 12

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Screen removed?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
If bentonite chips were used, were they hydrated with water from a known safe source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Required Method of Placing Sealing Material			
<input type="checkbox"/> Conductor Pipe-Gravity		<input type="checkbox"/> Conductor Pipe-Pumped	
<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)		<input type="checkbox"/> Other (Explain): _____	
Sealing Materials			
<input type="checkbox"/> Neat Cement Grout		<input type="checkbox"/> Concrete	
<input type="checkbox"/> Sand-Cement (Concrete) Grout		<input checked="" type="checkbox"/> Bentonite Chips	
For Monitoring Wells and Monitoring Well Boreholes Only:			
<input checked="" type="checkbox"/> Bentonite Chips		<input type="checkbox"/> Bentonite - Cement Grout	
<input type="checkbox"/> Granular Bentonite		<input type="checkbox"/> Bentonite - Sand Slurry	

5. Material Used to Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
ASPHALT PATCH	Surface	0.5		
BENTONITE CHIPS	0.5	16	1/2 BAG	

**6. Comments**

**7. Supervision of Work**      **DNR Use Only**

Name of Person or Firm Doing Filling & Sealing TERRACON CONSULTANTS		License #	Date of Filling & Sealing or Verification (mm/dd/yyyy) 10/25/2019	Date Received	Noted By
Street or Route 9856 SOUTH 57TH STREET		Telephone Number ( )		Comments	
City FRANKLIN	State WI	ZIP Code 53132	Signature of Person Doing Work	Date Signed 11/5/2019	



## **APPENDIX C**

### **TABLES**

**Table 1  
Groundwater Analytical Table for VOCs  
Detected Compounds Only**

**Lake Country Square  
601 Ryan Street  
Pewaukee, Wisconsin  
Terracon Project No. 58197210**

Sample ID	Sample Date	VOCs (ug/L)	
		cis-1,2-Dichloroethene	Toluene
P-1	10/25/2019	26.9	0.23
NR 140 WAC, PAL <sup>1</sup>		7	160
NR 140 WAC, ES <sup>2</sup>		70	800

**Notes:**

VOC = Volatile Organic Compounds

Results expressed in micrograms per liter (ug/L)

<sup>1</sup>NR 140, Wisconsin Administrative Code, (WAC) Preventive Action Limit (PAL), Register, February 2017

<sup>2</sup>NR 140, WAC, Enforcement Standard (ES), Register, February 2017

**XX.XX** Exceeds NR 140 PAL

**XX.XX** Exceeds NR 140 ES



**TABLE 2**  
Vapor Analytical Test Results Summary: Sub-slab

Lake Country Square  
601 Ryan Street  
Pewaukee, Wisconsin  
Terracon Project No. 58197210

Vapor Sampling Point	Sample Date	Volatile Organic Compounds (VOCs - µg/m <sup>3</sup> )																								
		Tetrachloroethene (PCE)	Trichloroethene (TCE)	Acetone	Benzene	n-Butane (MEK)	Chloroethane	Cyclohexane	Dichlorodifluoromethane	Ethanol	Ethyl Acetate	Ethylbenzene	n-Ethyltoluene	n-Heptane	n-Hexane	n-Hexanone	Methylene Chloride	Naphthalene	n-Propanol	Styrene	Toluene	Trichlorofluoromethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylene	o-xylene
VP-1	10/25/19	37.9	5.5	80.5	15.5	2.0	<0.31	10.4	180,000	25.0	<0.37	5.4	<1.1	35.4	28.8	<1.5	16.2	<2.6	4.6	2.7	21.8	1.7	2.6	0.81	8.8	3.3
VP-1R	11/20/19	20.4	5.3	119	18.1	1.1	<0.27	12.3	13,700	28.2	0.81	9.8	3.2	24.1	5.5	<1.3	7.2	<2.3	5.1	16.7	38.4	1.7	4.2	3.1	33.9	14.7
VP-2	11/20/19	0.77	<0.44	52.1	1.5	3.1	0.39	12.4	39.8	1,660	0.78	10.3	3.6	20.4	4.1	<1.3	5.8	4.0	134	21.2	30.8	1.2	5.1	3.4	40.3	17.5
VP-3	11/20/19	0.88	<0.46	25.0	1.3	2.8	<0.29	11.6	210	88.7	<0.35	12.6	3.8	21.6	2.9	<1.4	4.0	4.1	6.9	29.1	34.9	1.3	6.7	4.1	51.8	22.8
VP-4	11/20/19	0.91	<0.45	53.8	2.0	2.4	<0.28	15.2	57.7	247	<0.34	13.3	3.7	24.3	4.3	5.1	8.6	4.1	14.2	29.8	39.2	1.2	6.7	4.0	53.6	23.4
VP-5	11/20/19	17.2	<0.46	38.9	2.5	2.4	<0.29	12.2	3,170	198	0.88	12.2	3.6	22.7	5.6	<1.4	11.3	4.1	8.7	25.6	37.1	1.5	6.0	3.5	47.9	21.0
Residential Indoor Air VAL <sup>1</sup>	µg/m <sup>3</sup>	42	2.1	32,200	3.6	5,210	94	6,260	100	-	7.3	11	-	417	730	3.13	630	0.83	209	1,040	5,200	-	63	63	100	100
Residential Sub-slab Vapor/Soil Gas VRSL <sup>2</sup>	µg/m <sup>3</sup>	1,400	70	1,073,333	120	173,667	3,100	208,667	3,300	-	243.3	370	-	13,900	24,333	104.3	21,000	28	6,967	34,667	170,000	-	2,100	2,100	3,300	3,300
Small Commercial Building Indoor Air VAL <sup>1</sup>	µg/m <sup>3</sup>	180	8.8	135,000	16	21,900	390	26,300	440	-	37	49	-	1,750	3,070	13.1	2,600	3.6	876	4,380	22,000	-	260	260	440	440
Small Commercial Building Sub-slab Vapor/Soil Gas VRSL <sup>2</sup>	µg/m <sup>3</sup>	6,000	290	4,500,000	530	730,000	13,000	876,667	15,000	-	1,233.3	1,600	-	58,333	102,333	437	87,000	120	29,200	146,000	730,000	-	8,700	8,700	15,000	15,000
Large Commercial/Industrial Building Indoor Air VAL <sup>1</sup>	µg/m <sup>3</sup>	180	8.8	135,000	16	21,900	390	26,300	440	-	37	49	-	1,750	3,070	13.1	2,600	3.6	876	4,380	22,000	-	230	230	440	440
Large Commercial/Industrial Building Sub-slab Vapor/Soil Gas VRSL <sup>2</sup>	µg/m <sup>3</sup>	18,000	880	13,500,000	1,600	219,000	39,000	2,630,000	44,000	-	3,700	4,900	-	17,500	30,700	1,300	260,000	360	87,600	43,800	2,200,000	-	26,000	26,000	44,000	44,000

**Notes:**  
 Results expressed in micrograms per cubic meter (µg/m<sup>3</sup>)  
 VAL = Vapor Action Limit  
 VRSL = Vapor Risk Screening Level  
 CVOCs = Chlorinated Volatile Organic Compounds  
 \* < \* Indicates not detected at or above the limit of detection (LOD)  
 \* - \* Indicates standard not established, not calculated or not analyzed  
<sup>1</sup> VALs are shown for information only and do not apply to sub-slab results. VAL given as the lesser of 1:100,000 lifetime cancer risk or noncancer hazard index of 1 value in generic U.S. EPA Tables at the web address: [http://www.epa.gov/re3hwm/risk/human/rb-concentratio\\_table/Generic\\_Tables/index.htm](http://www.epa.gov/re3hwm/risk/human/rb-concentratio_table/Generic_Tables/index.htm) and modified for Wisconsin Vapor Intrusion Guidance PUB-RR-800 lifetime cancer risk (1:100,000) (Nov 2017)  
<sup>2</sup> VRSL is the VAL adjusted for sub-slab vapor to indoor air by applying an attenuation factor of 0.03 for comparison with the analytical results.  
<sup>3</sup> VRSL is the VAL adjusted for sub-slab vapor to indoor air by applying an attenuation factor of 0.01 for comparison with analytical results.  
 Blue Shaded values indicate exceedance of applicable residential VRSLs (sub-slab)  
 Grey Shaded values indicate exceedance of applicable small commercial VRSLs (sub-slab)  
 Orange Shaded values indicate exceedance of applicable Large commercial building VRSLs (sub-slab)

**APPENDIX D**

PHOTOGRAPHIC LOG





1) Photograph facing northeast of the location of soil boring P-1.



2) Photograph facing southwest of soil boring P-1.



3) Photograph showing temporary monitoring well P-1.

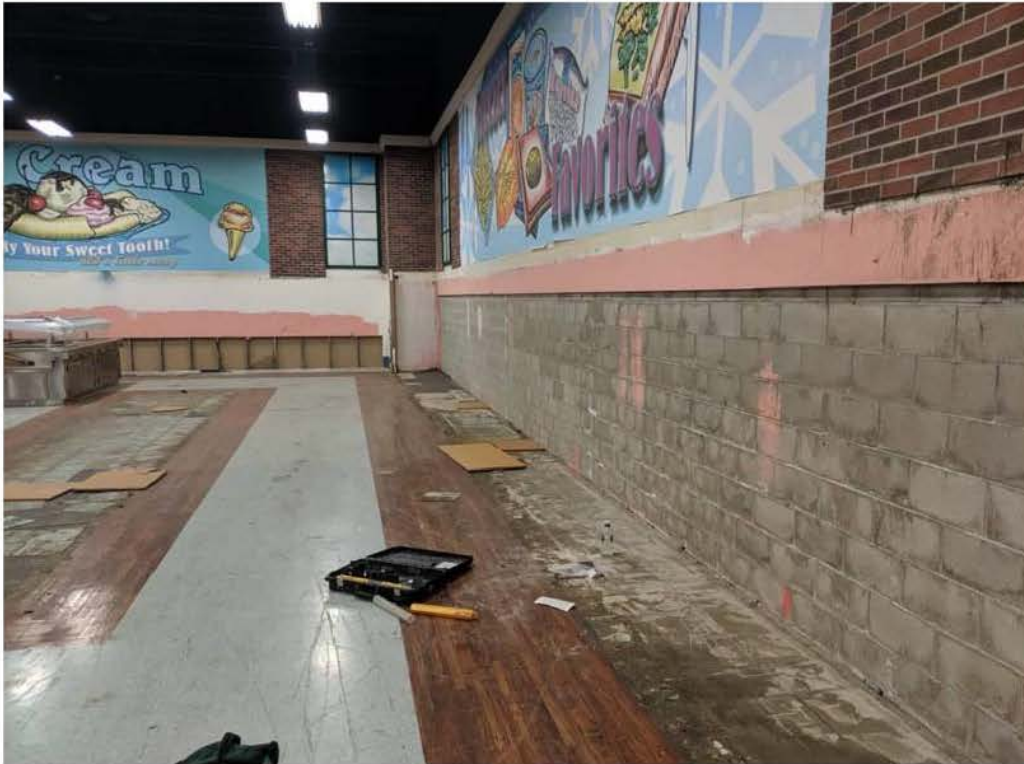


4) Photograph taken during VP-1 sample collection.





5) Photograph of VP-2.



6) Photograph of VP-3.



7) Photograph of VP-4.



8) Photograph of VP-5.



## **APPENDIX E**

LABORATORY ANALYTICAL REPORTS,  
CHAINS OF CUSTODIES, AND SUB-SLAB  
VAPOR SAMPLING SHEETS

November 04, 2019

Anthony LaBrasca  
Terracon, Inc. - Franklin  
9856 S. 57th Street  
Franklin, WI 53132

RE: Project: 58197210 LAKE COUNTRY SQ LSI  
Pace Project No.: 40198119

Dear Anthony LaBrasca:

Enclosed are the analytical results for sample(s) received by the laboratory on October 29, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

---

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 58197210 LAKE COUNTRY SQ LSI  
Pace Project No.: 40198119

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40198119001	P-1 (2)	Solid	10/25/19 11:00	10/29/19 08:50
40198119002	P-1 (9)	Solid	10/25/19 11:10	10/29/19 08:50
40198119003	P-1	Water	10/25/19 11:45	10/29/19 08:50
40198119004	MEOH BLANK	Solid	10/25/19 00:00	10/29/19 08:50
40198119005	HCL TRIP BLANK	Water	10/25/19 00:00	10/29/19 08:50

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### SAMPLE ANALYTE COUNT

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40198119001	P-1 (2)	EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	AMS	1	PASI-G
40198119002	P-1 (9)	EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	AMS	1	PASI-G
40198119003	P-1	EPA 8260	HNW	64	PASI-G
40198119004	MEOH BLANK	EPA 8260	MDS	64	PASI-G
40198119005	HCL TRIP BLANK	EPA 8260	HNW	64	PASI-G

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 58197210 LAKE COUNTRY SQ LSI  
Pace Project No.: 40198119

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40198119001</b>	<b>P-1 (2)</b>					
ASTM D2974-87	Percent Moisture	6.9	%	0.10	11/01/19 11:05	
<b>40198119002</b>	<b>P-1 (9)</b>					
ASTM D2974-87	Percent Moisture	6.6	%	0.10	11/01/19 11:05	
<b>40198119003</b>	<b>P-1</b>					
EPA 8260	cis-1,2-Dichloroethene	26.9	ug/L	1.0	10/30/19 12:42	
EPA 8260	Toluene	0.23J	ug/L	5.0	10/30/19 12:42	

### REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

---

**Method:** EPA 8260

**Description:** 8260 MSV Med Level Normal List

**Client:** Terracon, Inc. - Franklin

**Date:** November 04, 2019

**General Information:**

3 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 339173

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40197646002

R1: RPD value was outside control limits.

- MSD (Lab ID: 1969863)
- 1,1-Dichloroethene

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

---

**Method:** EPA 8260

**Description:** 8260 MSV

**Client:** Terracon, Inc. - Franklin

**Date:** November 04, 2019

**General Information:**

2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Internal Standards:**

All internal standards were within QC limits with any exceptions noted below.

**Surrogates:**

All surrogates were within QC limits with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Sample: P-1 (2) Lab ID: 40198119001 Collected: 10/25/19 11:00 Received: 10/29/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	10/31/19 10:45	10/31/19 20:07	74-83-9	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	104-51-8	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	98-06-6	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	10/31/19 10:45	10/31/19 20:07	75-00-3	W
Chloroform	<46.4	ug/kg	250	46.4	1	10/31/19 10:45	10/31/19 20:07	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	74-87-3	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	106-43-4	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	10/31/19 10:45	10/31/19 20:07	96-12-8	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	124-48-1	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	106-93-4	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	74-95-3	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	95-50-1	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	541-73-1	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	106-46-7	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	75-71-8	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	75-35-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	156-59-2	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	156-60-5	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	78-87-5	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	142-28-9	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	594-20-7	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	563-58-6	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	10061-01-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	10061-02-6	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	98-82-8	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	99-87-6	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	75-09-2	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	1634-04-4	W
Naphthalene	<40.0	ug/kg	250	40.0	1	10/31/19 10:45	10/31/19 20:07	91-20-3	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	103-65-1	W
Styrene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	100-42-5	W

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Sample: P-1 (2) Lab ID: 40198119001 Collected: 10/25/19 11:00 Received: 10/29/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>									
Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	630-20-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	79-34-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	108-88-3	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	87-61-6	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	10/31/19 10:45	10/31/19 20:07	120-82-1	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	79-00-5	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	75-69-4	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	96-18-4	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	108-67-8	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	75-01-4	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/31/19 10:45	10/31/19 20:07	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 20:07	95-47-6	W
<b>Surrogates</b>									
Dibromofluoromethane (S)	105	%	57-146		1	10/31/19 10:45	10/31/19 20:07	1868-53-7	
Toluene-d8 (S)	105	%	64-134		1	10/31/19 10:45	10/31/19 20:07	2037-26-5	
4-Bromofluorobenzene (S)	100	%	54-126		1	10/31/19 10:45	10/31/19 20:07	460-00-4	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	6.9	%	0.10	0.10	1		11/01/19 11:05		

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## ANALYTICAL RESULTS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Sample: P-1 (9) Lab ID: 40198119002 Collected: 10/25/19 11:10 Received: 10/29/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	10/30/19 10:15	11/01/19 18:45	74-83-9	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	104-51-8	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	98-06-6	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	10/30/19 10:15	11/01/19 18:45	75-00-3	W
Chloroform	<46.4	ug/kg	250	46.4	1	10/30/19 10:15	11/01/19 18:45	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	74-87-3	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	106-43-4	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	10/30/19 10:15	11/01/19 18:45	96-12-8	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	124-48-1	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	106-93-4	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	74-95-3	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	95-50-1	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	541-73-1	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	106-46-7	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	75-71-8	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	75-35-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	156-59-2	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	156-60-5	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	78-87-5	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	142-28-9	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	594-20-7	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	563-58-6	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	10061-01-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	10061-02-6	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/04/19 11:05	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	98-82-8	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	99-87-6	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	75-09-2	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	1634-04-4	W
Naphthalene	<40.0	ug/kg	250	40.0	1	10/30/19 10:15	11/01/19 18:45	91-20-3	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	103-65-1	W
Styrene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	100-42-5	W

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## ANALYTICAL RESULTS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Sample: P-1 (9) Lab ID: 40198119002 Collected: 10/25/19 11:10 Received: 10/29/19 08:50 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b> Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B									
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	630-20-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	79-34-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	108-88-3	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	87-61-6	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	10/30/19 10:15	11/01/19 18:45	120-82-1	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	79-00-5	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	75-69-4	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	96-18-4	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	108-67-8	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	75-01-4	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/30/19 10:15	11/01/19 18:45	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/30/19 10:15	11/01/19 18:45	95-47-6	W
<b>Surrogates</b>									
Dibromofluoromethane (S)	103	%	57-146		1	10/30/19 10:15	11/01/19 18:45	1868-53-7	
Toluene-d8 (S)	106	%	64-134		1	10/30/19 10:15	11/01/19 18:45	2037-26-5	
4-Bromofluorobenzene (S)	96	%	54-126		1	10/30/19 10:15	11/01/19 18:45	460-00-4	
<b>Percent Moisture</b> Analytical Method: ASTM D2974-87									
Percent Moisture	6.6	%	0.10	0.10	1		11/01/19 11:05		

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## ANALYTICAL RESULTS

Project: 58197210 LAKE COUNTRY SQ LSI

Sample Project No.: 40198119

Sample: P-1 Lab ID: 40198119003 Collected: 10/25/19 11:45 Received: 10/29/19 08:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L	1.0	0.25	1		10/30/19 12:42	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/30/19 12:42	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/30/19 12:42	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/30/19 12:42	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/30/19 12:42	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/30/19 12:42	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/30/19 12:42	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/30/19 12:42	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/30/19 12:42	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/30/19 12:42	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/30/19 12:42	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/30/19 12:42	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/30/19 12:42	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/30/19 12:42	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/30/19 12:42	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/30/19 12:42	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/30/19 12:42	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/30/19 12:42	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/30/19 12:42	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/30/19 12:42	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/30/19 12:42	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/30/19 12:42	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/30/19 12:42	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/30/19 12:42	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		10/30/19 12:42	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/30/19 12:42	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/30/19 12:42	75-35-4	
cis-1,2-Dichloroethene	26.9	ug/L	1.0	0.27	1		10/30/19 12:42	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		10/30/19 12:42	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/30/19 12:42	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/30/19 12:42	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/30/19 12:42	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/30/19 12:42	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/30/19 12:42	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/30/19 12:42	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/30/19 12:42	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/30/19 12:42	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/30/19 12:42	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/30/19 12:42	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/30/19 12:42	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/30/19 12:42	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/30/19 12:42	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/30/19 12:42	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/30/19 12:42	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/30/19 12:42	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/30/19 12:42	630-20-6	

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### ANALYTICAL RESULTS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Sample: P-1 Lab ID: 40198119003 Collected: 10/25/19 11:45 Received: 10/29/19 08:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/30/19 12:42	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/30/19 12:42	127-18-4	
Toluene	0.23J	ug/L	5.0	0.17	1		10/30/19 12:42	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/30/19 12:42	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/30/19 12:42	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/30/19 12:42	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/30/19 12:42	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		10/30/19 12:42	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/30/19 12:42	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/30/19 12:42	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/30/19 12:42	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/30/19 12:42	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/30/19 12:42	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/30/19 12:42	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/30/19 12:42	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	92	%	70-130		1		10/30/19 12:42	460-00-4	
Dibromofluoromethane (S)	97	%	70-130		1		10/30/19 12:42	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		10/30/19 12:42	2037-26-5	

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## ANALYTICAL RESULTS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Sample: MEOH BLANK Lab ID: 40198119004 Collected: 10/25/19 00:00 Received: 10/29/19 08:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
Benzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	71-43-2	W
Bromobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	108-86-1	W
Bromochloromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	75-27-4	W
Bromoform	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	75-25-2	W
Bromomethane	<69.9	ug/kg	250	69.9	1	10/31/19 10:45	10/31/19 18:35	74-83-9	W
n-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	104-51-8	W
sec-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	98-06-6	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	108-90-7	W
Chloroethane	<67.0	ug/kg	250	67.0	1	10/31/19 10:45	10/31/19 18:35	75-00-3	W
Chloroform	<46.4	ug/kg	250	46.4	1	10/31/19 10:45	10/31/19 18:35	67-66-3	W
Chloromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	74-87-3	W
2-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	106-43-4	W
1,2-Dibromo-3-chloropropane	<91.2	ug/kg	250	91.2	1	10/31/19 10:45	10/31/19 18:35	96-12-8	W
Dibromochloromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	124-48-1	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	106-93-4	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	74-95-3	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	95-50-1	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	541-73-1	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	106-46-7	W
Dichlorodifluoromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	75-71-8	W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	75-34-3	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	107-06-2	W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	75-35-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	156-59-2	W
trans-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	156-60-5	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	78-87-5	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	142-28-9	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	594-20-7	W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	563-58-6	W
cis-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	10061-01-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	10061-02-6	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	100-41-4	W
Hexachloro-1,3-butadiene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	98-82-8	W
p-Isopropyltoluene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	99-87-6	W
Methylene Chloride	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	75-09-2	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	1634-04-4	W
Naphthalene	<40.0	ug/kg	250	40.0	1	10/31/19 10:45	10/31/19 18:35	91-20-3	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	103-65-1	W
Styrene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	100-42-5	W

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### ANALYTICAL RESULTS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Sample: **MEOH BLANK** Lab ID: **40198119004** Collected: 10/25/19 00:00 Received: 10/29/19 08:50 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV Med Level Normal List</b>		Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B							
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	630-20-6	W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	79-34-5	W
Tetrachloroethene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	108-88-3	W
1,2,3-Trichlorobenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	87-61-6	W
1,2,4-Trichlorobenzene	<47.6	ug/kg	250	47.6	1	10/31/19 10:45	10/31/19 18:35	120-82-1	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	71-55-6	W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	79-00-5	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	75-69-4	W
1,2,3-Trichloropropane	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	96-18-4	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	108-67-8	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	75-01-4	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	10/31/19 10:45	10/31/19 18:35	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	10/31/19 10:45	10/31/19 18:35	95-47-6	W
<b>Surrogates</b>									
Dibromofluoromethane (S)	102	%	57-146		1	10/31/19 10:45	10/31/19 18:35	1868-53-7	
Toluene-d8 (S)	104	%	64-134		1	10/31/19 10:45	10/31/19 18:35	2037-26-5	
4-Bromofluorobenzene (S)	104	%	54-126		1	10/31/19 10:45	10/31/19 18:35	460-00-4	

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## ANALYTICAL RESULTS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Sample: HCL TRIP BLANK Lab ID: 40198119005 Collected: 10/25/19 00:00 Received: 10/29/19 08:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/30/19 16:38	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/30/19 16:38	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/30/19 16:38	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/30/19 16:38	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/30/19 16:38	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/30/19 16:38	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/30/19 16:38	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/30/19 16:38	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/30/19 16:38	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/30/19 16:38	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/30/19 16:38	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/30/19 16:38	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/30/19 16:38	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/30/19 16:38	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/30/19 16:38	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/30/19 16:38	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/30/19 16:38	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/30/19 16:38	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/30/19 16:38	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/30/19 16:38	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/30/19 16:38	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/30/19 16:38	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/30/19 16:38	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/30/19 16:38	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		10/30/19 16:38	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/30/19 16:38	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/30/19 16:38	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		10/30/19 16:38	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		10/30/19 16:38	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/30/19 16:38	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/30/19 16:38	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/30/19 16:38	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/30/19 16:38	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/30/19 16:38	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/30/19 16:38	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/30/19 16:38	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/30/19 16:38	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/30/19 16:38	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/30/19 16:38	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/30/19 16:38	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/30/19 16:38	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/30/19 16:38	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/30/19 16:38	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/30/19 16:38	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/30/19 16:38	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/30/19 16:38	630-20-6	

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## ANALYTICAL RESULTS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Sample: HCL TRIP BLANK      Lab ID: 40198119005      Collected: 10/25/19 00:00      Received: 10/29/19 08:50      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>									
Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/30/19 16:38	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/30/19 16:38	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/30/19 16:38	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/30/19 16:38	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/30/19 16:38	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/30/19 16:38	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/30/19 16:38	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		10/30/19 16:38	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/30/19 16:38	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/30/19 16:38	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/30/19 16:38	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/30/19 16:38	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/30/19 16:38	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/30/19 16:38	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/30/19 16:38	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	70-130		1		10/30/19 16:38	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		10/30/19 16:38	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		10/30/19 16:38	2037-26-5	

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

QC Batch: 339173

Analysis Method: EPA 8260

QC Batch Method: EPA 5035/5030B

Analysis Description: 8260 MSV Med Level Normal List

Associated Lab Samples: 40198119002

METHOD BLANK: 1969859

Matrix: Solid

Associated Lab Samples: 40198119002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	10/31/19 17:50	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	10/31/19 17:50	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	10/31/19 17:50	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	10/31/19 17:50	
1,1-Dichloroethane	ug/kg	<17.6	50.0	10/31/19 17:50	
1,1-Dichloroethene	ug/kg	<17.6	50.0	10/31/19 17:50	
1,1-Dichloropropene	ug/kg	<14.0	50.0	10/31/19 17:50	
1,2,3-Trichlorobenzene	ug/kg	19.9J	50.0	10/31/19 17:50	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	10/31/19 17:50	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	10/31/19 17:50	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	10/31/19 17:50	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	10/31/19 17:50	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	10/31/19 17:50	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	10/31/19 17:50	
1,2-Dichloroethane	ug/kg	<15.0	50.0	10/31/19 17:50	
1,2-Dichloropropane	ug/kg	<16.8	50.0	10/31/19 17:50	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	10/31/19 17:50	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	10/31/19 17:50	
1,3-Dichloropropane	ug/kg	<12.0	50.0	10/31/19 17:50	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	10/31/19 17:50	
2,2-Dichloropropane	ug/kg	<12.6	50.0	10/31/19 17:50	
2-Chlorotoluene	ug/kg	<15.8	50.0	10/31/19 17:50	
4-Chlorotoluene	ug/kg	<13.0	50.0	10/31/19 17:50	
Benzene	ug/kg	<9.2	20.0	10/31/19 17:50	
Bromobenzene	ug/kg	<20.6	50.0	10/31/19 17:50	
Bromochloromethane	ug/kg	<21.4	50.0	10/31/19 17:50	
Bromodichloromethane	ug/kg	<9.8	50.0	10/31/19 17:50	
Bromoform	ug/kg	<19.8	50.0	10/31/19 17:50	
Bromomethane	ug/kg	<69.9	250	10/31/19 17:50	
Carbon tetrachloride	ug/kg	<12.1	50.0	10/31/19 17:50	
Chlorobenzene	ug/kg	<14.8	50.0	10/31/19 17:50	
Chloroethane	ug/kg	<67.0	250	10/31/19 17:50	
Chloroform	ug/kg	<46.4	250	10/31/19 17:50	
Chloromethane	ug/kg	<20.4	50.0	10/31/19 17:50	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	10/31/19 17:50	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	10/31/19 17:50	
Dibromochloromethane	ug/kg	<17.9	50.0	10/31/19 17:50	
Dibromomethane	ug/kg	<19.3	50.0	10/31/19 17:50	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	10/31/19 17:50	
Diisopropyl ether	ug/kg	<17.7	50.0	10/31/19 17:50	
Ethylbenzene	ug/kg	<12.4	50.0	10/31/19 17:50	

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

METHOD BLANK: 1969859

Matrix: Solid

Associated Lab Samples: 40198119002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	33.9J	50.0	10/31/19 17:50	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	10/31/19 17:50	
m&p-Xylene	ug/kg	<34.4	100	10/31/19 17:50	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	10/31/19 17:50	
Methylene Chloride	ug/kg	<16.2	50.0	10/31/19 17:50	
n-Butylbenzene	ug/kg	<10.5	50.0	10/31/19 17:50	
n-Propylbenzene	ug/kg	<11.6	50.0	10/31/19 17:50	
Naphthalene	ug/kg	<40.0	250	10/31/19 17:50	
o-Xylene	ug/kg	<14.0	50.0	10/31/19 17:50	
p-Isopropyltoluene	ug/kg	<12.0	50.0	10/31/19 17:50	
sec-Butylbenzene	ug/kg	<11.9	50.0	10/31/19 17:50	
Styrene	ug/kg	<9.0	50.0	10/31/19 17:50	
tert-Butylbenzene	ug/kg	<9.5	50.0	10/31/19 17:50	
Tetrachloroethene	ug/kg	<12.9	50.0	10/31/19 17:50	
Toluene	ug/kg	<11.2	50.0	10/31/19 17:50	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	10/31/19 17:50	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	10/31/19 17:50	
Trichloroethene	ug/kg	<23.6	50.0	10/31/19 17:50	
Trichlorofluoromethane	ug/kg	<24.7	50.0	10/31/19 17:50	
Vinyl chloride	ug/kg	<21.1	50.0	10/31/19 17:50	
4-Bromofluorobenzene (S)	%	94	54-126	10/31/19 17:50	
Dibromofluoromethane (S)	%	96	57-146	10/31/19 17:50	
Toluene-d8 (S)	%	107	64-134	10/31/19 17:50	

LABORATORY CONTROL SAMPLE: 1969860

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2600	104	70-132	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2710	108	70-130	
1,1,2-Trichloroethane	ug/kg	2500	2480	99	70-130	
1,1-Dichloroethane	ug/kg	2500	2730	109	70-130	
1,1-Dichloroethene	ug/kg	2500	2570	103	77-126	
1,2,4-Trichlorobenzene	ug/kg	2500	1980	79	66-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2610	105	54-129	
1,2-Dibromoethane (EDB)	ug/kg	2500	2360	94	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2510	100	70-130	
1,2-Dichloroethane	ug/kg	2500	2630	105	70-134	
1,2-Dichloropropane	ug/kg	2500	2670	107	74-124	
1,3-Dichlorobenzene	ug/kg	2500	2610	105	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2480	99	70-130	
Benzene	ug/kg	2500	2480	99	70-130	
Bromodichloromethane	ug/kg	2500	2520	101	70-130	
Bromoform	ug/kg	2500	2160	86	47-115	
Bromomethane	ug/kg	2500	2100	84	64-165	

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

LABORATORY CONTROL SAMPLE: 1969860

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/kg	2500	2470	99	70-131	
Chlorobenzene	ug/kg	2500	2450	98	70-130	
Chloroethane	ug/kg	2500	2430	97	28-197	
Chloroform	ug/kg	2500	2440	97	80-131	
Chloromethane	ug/kg	2500	2010	81	45-118	
cis-1,2-Dichloroethene	ug/kg	2500	2300	92	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2310	92	70-130	
Dibromochloromethane	ug/kg	2500	2380	95	70-130	
Dichlorodifluoromethane	ug/kg	2500	1530	61	38-108	
Ethylbenzene	ug/kg	2500	2420	97	82-122	
Isopropylbenzene (Cumene)	ug/kg	2500	2320	93	70-130	
m&p-Xylene	ug/kg	5000	4970	99	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2540	102	70-130	
Methylene Chloride	ug/kg	2500	2360	94	70-130	
o-Xylene	ug/kg	2500	2480	99	70-130	
Styrene	ug/kg	2500	2560	103	70-130	
Tetrachloroethene	ug/kg	2500	2410	96	70-130	
Toluene	ug/kg	2500	2630	105	80-121	
trans-1,2-Dichloroethene	ug/kg	2500	2610	105	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2390	96	70-130	
Trichloroethene	ug/kg	2500	2460	98	70-130	
Trichlorofluoromethane	ug/kg	2500	2560	102	81-141	
Vinyl chloride	ug/kg	2500	2130	85	68-121	
4-Bromofluorobenzene (S)	%			98	54-126	
Dibromofluoromethane (S)	%			102	57-146	
Toluene-d8 (S)	%			106	64-134	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1969861 1969863

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40197646002 Result	Spike Conc.	Spike Conc.	Conc.								
1,1,1-Trichloroethane	ug/kg	<25.0	1490	1490	1290	1520	87	102	64-132	16	20		
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	1490	1490	1710	1590	115	107	70-132	7	20		
1,1,2-Trichloroethane	ug/kg	<25.0	1490	1490	1530	1500	103	101	70-130	2	20		
1,1-Dichloroethane	ug/kg	<25.0	1490	1490	1500	1570	101	106	70-130	5	20		
1,1-Dichloroethene	ug/kg	<25.0	1490	1490	1240	1560	83	105	65-126	23	21	R1	
1,2,4-Trichlorobenzene	ug/kg	<47.6	1490	1490	1590	1510	107	101	66-139	5	20		
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	1490	1490	1670	1720	112	115	47-146	3	23		
1,2-Dibromoethane (EDB)	ug/kg	<25.0	1490	1490	1560	1390	105	94	70-130	12	20		
1,2-Dichlorobenzene	ug/kg	<25.0	1490	1490	1730	1610	116	108	70-130	7	20		
1,2-Dichloroethane	ug/kg	<25.0	1490	1490	1530	1500	102	101	70-136	2	20		
1,2-Dichloropropane	ug/kg	<25.0	1490	1490	1480	1540	99	104	74-124	4	20		
1,3-Dichlorobenzene	ug/kg	<25.0	1490	1490	1720	1530	116	102	70-130	12	20		
1,4-Dichlorobenzene	ug/kg	<25.0	1490	1490	1690	1580	114	106	70-130	7	20		

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1969861		1969863		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40197646002 Result	MS Spike Conc.	MSD Spike Conc.									
Benzene	ug/kg	<25.0	1490	1490	1380	1430	92	96	70-130	4	20		
Bromodichloromethane	ug/kg	<25.0	1490	1490	1490	1470	100	99	70-130	1	20		
Bromoform	ug/kg	<25.0	1490	1490	1460	1350	98	91	47-129	8	20		
Bromomethane	ug/kg	<69.9	1490	1490	1160	1350	78	91	41-180	16	20		
Carbon tetrachloride	ug/kg	<25.0	1490	1490	1140	1380	77	92	58-133	18	20		
Chlorobenzene	ug/kg	<25.0	1490	1490	1450	1410	97	95	70-130	3	20		
Chloroethane	ug/kg	<67.0	1490	1490	1390	1570	93	106	28-197	13	20		
Chloroform	ug/kg	<46.4	1490	1490	1350	1370	91	92	80-131	2	20		
Chloromethane	ug/kg	<25.0	1490	1490	1150	1270	77	85	26-118	10	20		
cis-1,2-Dichloroethene	ug/kg	<25.0	1490	1490	1290	1370	86	92	70-130	6	20		
cis-1,3-Dichloropropene	ug/kg	<25.0	1490	1490	1420	1390	95	93	70-130	2	20		
Dibromochloromethane	ug/kg	<25.0	1490	1490	1510	1420	102	95	67-130	6	20		
Dichlorodifluoromethane	ug/kg	<25.0	1490	1490	762	993	51	67	12-108	26	29		
Ethylbenzene	ug/kg	<25.0	1490	1490	1350	1370	91	92	80-122	1	20		
Isopropylbenzene (Cumene)	ug/kg	<25.0	1490	1490	1320	1330	89	89	70-130	1	20		
m&p-Xylene	ug/kg	<50.0	2980	2980	2840	2830	95	95	70-130	0	20		
Methyl-tert-butyl ether	ug/kg	<25.0	1490	1490	1510	1430	102	96	70-130	5	20		
Methylene Chloride	ug/kg	<25.0	1490	1490	1380	1400	93	94	70-130	1	20		
o-Xylene	ug/kg	<25.0	1490	1490	1440	1390	97	93	70-130	3	20		
Styrene	ug/kg	<25.0	1490	1490	1470	1440	99	97	70-130	2	20		
Tetrachloroethene	ug/kg	<25.0	1490	1490	1260	1390	85	93	70-130	9	20		
Toluene	ug/kg	<25.0	1490	1490	1520	1530	100	101	80-121	1	20		
trans-1,2-Dichloroethene	ug/kg	<25.0	1490	1490	1420	1550	95	104	70-130	9	20		
trans-1,3-Dichloropropene	ug/kg	<25.0	1490	1490	1520	1430	102	96	70-130	6	20		
Trichloroethene	ug/kg	<25.0	1490	1490	1340	1450	90	97	70-130	7	20		
Trichlorofluoromethane	ug/kg	<25.0	1490	1490	1240	1520	83	102	60-141	21	26		
Vinyl chloride	ug/kg	<25.0	1490	1490	1110	1330	75	89	46-121	18	20		
4-Bromofluorobenzene (S)	%						105	107	54-126				
Dibromofluoromethane (S)	%						103	108	57-146				
Toluene-d8 (S)	%						116	115	64-134				

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

QC Batch: 339311

Analysis Method: EPA 8260

QC Batch Method: EPA 5035/5030B

Analysis Description: 8260 MSV Med Level Normal List

Associated Lab Samples: 40198119001, 40198119004

METHOD BLANK: 1970670

Matrix: Solid

Associated Lab Samples: 40198119001, 40198119004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	10/31/19 15:30	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	10/31/19 15:30	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	10/31/19 15:30	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	10/31/19 15:30	
1,1-Dichloroethane	ug/kg	<17.6	50.0	10/31/19 15:30	
1,1-Dichloroethene	ug/kg	<17.6	50.0	10/31/19 15:30	
1,1-Dichloropropene	ug/kg	<14.0	50.0	10/31/19 15:30	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	10/31/19 15:30	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	10/31/19 15:30	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	10/31/19 15:30	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	10/31/19 15:30	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	10/31/19 15:30	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	10/31/19 15:30	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	10/31/19 15:30	
1,2-Dichloroethane	ug/kg	<15.0	50.0	10/31/19 15:30	
1,2-Dichloropropane	ug/kg	<16.8	50.0	10/31/19 15:30	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	10/31/19 15:30	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	10/31/19 15:30	
1,3-Dichloropropane	ug/kg	<12.0	50.0	10/31/19 15:30	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	10/31/19 15:30	
2,2-Dichloropropane	ug/kg	<12.6	50.0	10/31/19 15:30	
2-Chlorotoluene	ug/kg	<15.8	50.0	10/31/19 15:30	
4-Chlorotoluene	ug/kg	<13.0	50.0	10/31/19 15:30	
Benzene	ug/kg	<9.2	20.0	10/31/19 15:30	
Bromobenzene	ug/kg	<20.6	50.0	10/31/19 15:30	
Bromochloromethane	ug/kg	<21.4	50.0	10/31/19 15:30	
Bromodichloromethane	ug/kg	<9.8	50.0	10/31/19 15:30	
Bromoform	ug/kg	<19.8	50.0	10/31/19 15:30	
Bromomethane	ug/kg	<69.9	250	10/31/19 15:30	
Carbon tetrachloride	ug/kg	<12.1	50.0	10/31/19 15:30	
Chlorobenzene	ug/kg	<14.8	50.0	10/31/19 15:30	
Chloroethane	ug/kg	<67.0	250	10/31/19 15:30	
Chloroform	ug/kg	<46.4	250	10/31/19 15:30	
Chloromethane	ug/kg	<20.4	50.0	10/31/19 15:30	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	10/31/19 15:30	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	10/31/19 15:30	
Dibromochloromethane	ug/kg	<17.9	50.0	10/31/19 15:30	
Dibromomethane	ug/kg	<19.3	50.0	10/31/19 15:30	
Dichlorodifluoromethane	ug/kg	<12.3	50.0	10/31/19 15:30	
Diisopropyl ether	ug/kg	<17.7	50.0	10/31/19 15:30	
Ethylbenzene	ug/kg	<12.4	50.0	10/31/19 15:30	

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

METHOD BLANK: 1970670

Matrix: Solid

Associated Lab Samples: 40198119001, 40198119004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/kg	28.4J	50.0	10/31/19 15:30	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	10/31/19 15:30	
m&p-Xylene	ug/kg	<34.4	100	10/31/19 15:30	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	10/31/19 15:30	
Methylene Chloride	ug/kg	<16.2	50.0	10/31/19 15:30	
n-Butylbenzene	ug/kg	<10.5	50.0	10/31/19 15:30	
n-Propylbenzene	ug/kg	<11.6	50.0	10/31/19 15:30	
Naphthalene	ug/kg	<40.0	250	10/31/19 15:30	
o-Xylene	ug/kg	<14.0	50.0	10/31/19 15:30	
p-Isopropyltoluene	ug/kg	<12.0	50.0	10/31/19 15:30	
sec-Butylbenzene	ug/kg	<11.9	50.0	10/31/19 15:30	
Styrene	ug/kg	<9.0	50.0	10/31/19 15:30	
tert-Butylbenzene	ug/kg	<9.5	50.0	10/31/19 15:30	
Tetrachloroethene	ug/kg	<12.9	50.0	10/31/19 15:30	
Toluene	ug/kg	<11.2	50.0	10/31/19 15:30	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	10/31/19 15:30	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	10/31/19 15:30	
Trichloroethene	ug/kg	<23.6	50.0	10/31/19 15:30	
Trichlorofluoromethane	ug/kg	<24.7	50.0	10/31/19 15:30	
Vinyl chloride	ug/kg	<21.1	50.0	10/31/19 15:30	
4-Bromofluorobenzene (S)	%	97	54-126	10/31/19 15:30	
Dibromofluoromethane (S)	%	107	57-146	10/31/19 15:30	
Toluene-d8 (S)	%	103	64-134	10/31/19 15:30	

LABORATORY CONTROL SAMPLE: 1970671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2680	107	70-132	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2460	98	70-130	
1,1,2-Trichloroethane	ug/kg	2500	2580	103	70-130	
1,1-Dichloroethane	ug/kg	2500	2700	108	70-130	
1,1-Dichloroethene	ug/kg	2500	2580	103	77-126	
1,2,4-Trichlorobenzene	ug/kg	2500	2660	106	66-130	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2460	98	54-129	
1,2-Dibromoethane (EDB)	ug/kg	2500	2700	108	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2590	104	70-130	
1,2-Dichloroethane	ug/kg	2500	2620	105	70-134	
1,2-Dichloropropane	ug/kg	2500	2570	103	74-124	
1,3-Dichlorobenzene	ug/kg	2500	2650	106	70-130	
1,4-Dichlorobenzene	ug/kg	2500	2500	100	70-130	
Benzene	ug/kg	2500	2560	102	70-130	
Bromodichloromethane	ug/kg	2500	2540	102	70-130	
Bromoform	ug/kg	2500	2690	108	47-115	
Bromomethane	ug/kg	2500	2190	88	64-165	

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

LABORATORY CONTROL SAMPLE: 1970671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/kg	2500	2630	105	70-131	
Chlorobenzene	ug/kg	2500	2610	104	70-130	
Chloroethane	ug/kg	2500	2310	92	28-197	
Chloroform	ug/kg	2500	2460	98	80-131	
Chloromethane	ug/kg	2500	1830	73	45-118	
cis-1,2-Dichloroethene	ug/kg	2500	2440	98	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2580	103	70-130	
Dibromochloromethane	ug/kg	2500	2680	107	70-130	
Dichlorodifluoromethane	ug/kg	2500	1550	62	38-108	
Ethylbenzene	ug/kg	2500	2650	106	82-122	
Isopropylbenzene (Cumene)	ug/kg	2500	2680	107	70-130	
m&p-Xylene	ug/kg	5000	5380	108	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2390	96	70-130	
Methylene Chloride	ug/kg	2500	2660	106	70-130	
o-Xylene	ug/kg	2500	2640	106	70-130	
Styrene	ug/kg	2500	2660	107	70-130	
Tetrachloroethene	ug/kg	2500	2740	110	70-130	
Toluene	ug/kg	2500	2670	107	80-121	
trans-1,2-Dichloroethene	ug/kg	2500	2660	106	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2720	109	70-130	
Trichloroethene	ug/kg	2500	2650	106	70-130	
Trichlorofluoromethane	ug/kg	2500	2490	99	81-141	
Vinyl chloride	ug/kg	2500	2150	86	68-121	
4-Bromofluorobenzene (S)	%			100	54-126	
Dibromofluoromethane (S)	%			108	57-146	
Toluene-d8 (S)	%			105	64-134	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1970672 1970673

Parameter	Units	1970672		1970673		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		10497100068 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
1,1,1-Trichloroethane	ug/kg	<0.018 mg/kg	1710	1450	1520	1430	89	98	64-132	6	20
1,1,2,2-Tetrachloroethane	ug/kg	<0.022 mg/kg	1710	1450	1420	1310	83	90	70-132	8	20
1,1,2-Trichloroethane	ug/kg	<0.025 mg/kg	1710	1450	1470	1430	86	98	70-130	3	20
1,1-Dichloroethane	ug/kg	<0.022 mg/kg	1710	1450	1570	1450	92	100	70-130	8	20
1,1-Dichloroethene	ug/kg	<0.022 mg/kg	1710	1450	1450	1290	85	89	65-126	12	21
1,2,4-Trichlorobenzene	ug/kg	<0.059 mg/kg	1710	1450	1530	1450	89	100	66-139	5	20
1,2-Dibromo-3-chloropropane	ug/kg	<0.11 mg/kg	1710	1450	1420	1400	83	96	47-146	2	23
1,2-Dibromoethane (EDB)	ug/kg	<0.018 mg/kg	1710	1450	1510	1410	88	97	70-130	7	20

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Parameter	Units	10497100068		1970672		1970673		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
1,2-Dichlorobenzene	ug/kg	<0.020 mg/kg	1710	1450	1530	1410	89	97	70-130	8	20			
1,2-Dichloroethane	ug/kg	<0.019 mg/kg	1710	1450	1510	1410	88	97	70-136	7	20			
1,2-Dichloropropane	ug/kg	<0.021 mg/kg	1710	1450	1430	1370	84	94	74-124	5	20			
1,3-Dichlorobenzene	ug/kg	<0.016 mg/kg	1710	1450	1490	1420	87	98	70-130	5	20			
1,4-Dichlorobenzene	ug/kg	<0.020 mg/kg	1710	1450	1400	1340	82	92	70-130	4	20			
Benzene	ug/kg	0.072 mg/kg	1710	1450	1510	1430	84	93	70-130	6	20			
Bromodichloromethane	ug/kg	<0.012 mg/kg	1710	1450	1420	1330	83	92	70-130	6	20			
Bromoform	ug/kg	<0.025 mg/kg	1710	1450	1430	1320	84	91	47-129	8	20			
Bromomethane	ug/kg	<0.087 mg/kg	1710	1450	1260	1220	73	84	41-180	3	20			
Carbon tetrachloride	ug/kg	<0.015 mg/kg	1710	1450	1470	1350	86	93	58-133	8	20			
Chlorobenzene	ug/kg	<0.018 mg/kg	1710	1450	1490	1410	87	97	70-130	5	20			
Chloroethane	ug/kg	<0.084 mg/kg	1710	1450	1300	1230	76	84	28-197	5	20			
Chloroform	ug/kg	<0.058 mg/kg	1710	1450	1450	1340	84	91	80-131	8	20			
Chloromethane	ug/kg	<0.026 mg/kg	1710	1450	1040	941	60	65	26-118	10	20			
cis-1,2-Dichloroethene	ug/kg	<0.021 mg/kg	1710	1450	1390	1310	81	90	70-130	6	20			
cis-1,3-Dichloropropene	ug/kg	<0.021 mg/kg	1710	1450	1400	1370	82	95	70-130	2	20			
Dibromochloromethane	ug/kg	<0.022 mg/kg	1710	1450	1460	1360	85	94	67-130	7	20			
Dichlorodifluoromethane	ug/kg	<0.015 mg/kg	1710	1450	652	565	38	39	12-108	14	29			
Ethylbenzene	ug/kg	0.077 mg/kg	1710	1450	1610	1510	89	99	80-122	6	20			
Isopropylbenzene (Cumene)	ug/kg	<0.016 mg/kg	1710	1450	1560	1460	91	101	70-130	6	20			
m&p-Xylene	ug/kg	0.84 mg/kg	3420	2910	3820	3660	87	97	70-130	4	20			
Methyl-tert-butyl ether	ug/kg	<0.016 mg/kg	1710	1450	1400	1330	82	91	70-130	6	20			
Methylene Chloride	ug/kg	<0.020 mg/kg	1710	1450	1510	1440	88	99	70-130	5	20			
o-Xylene	ug/kg	0.38 mg/kg	1710	1450	1770	1690	81	90	70-130	4	20			
Styrene	ug/kg	<0.011 mg/kg	1710	1450	1490	1420	87	98	70-130	5	20			
Tetrachloroethene	ug/kg	<0.016 mg/kg	1710	1450	1570	1480	92	102	70-130	6	20			
Toluene	ug/kg	0.50 mg/kg	1710	1450	1940	1810	84	90	80-121	7	20			

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Parameter	Units	10497100068		1970672		1970673		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
trans-1,2-Dichloroethene	ug/kg	<0.021 mg/kg	1710	1450	1510	1470	88	101	70-130	3	20			
trans-1,3-Dichloropropene	ug/kg	<0.018 mg/kg	1710	1450	1510	1400	88	96	70-130	7	20			
Trichloroethene	ug/kg	<0.030 mg/kg	1710	1450	1490	1420	87	98	70-130	4	20			
Trichlorofluoromethane	ug/kg	<0.031 mg/kg	1710	1450	1360	1210	79	83	60-141	11	26			
Vinyl chloride	ug/kg	<0.026 mg/kg	1710	1450	1170	1060	68	73	46-121	10	20			
4-Bromofluorobenzene (S)	%						85	88	54-126					
Dibromofluoromethane (S)	%						96	95	57-146					
Toluene-d8 (S)	%						93	93	64-134					

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

QC Batch: 339122 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 40198119003, 40198119005

METHOD BLANK: 1969658 Matrix: Water

Associated Lab Samples: 40198119003, 40198119005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	10/30/19 07:43	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/30/19 07:43	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	10/30/19 07:43	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	10/30/19 07:43	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/30/19 07:43	
1,1-Dichloroethene	ug/L	<0.24	1.0	10/30/19 07:43	
1,1-Dichloropropene	ug/L	<0.54	1.8	10/30/19 07:43	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	10/30/19 07:43	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	10/30/19 07:43	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	10/30/19 07:43	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	10/30/19 07:43	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/30/19 07:43	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/30/19 07:43	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/30/19 07:43	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/30/19 07:43	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/30/19 07:43	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	10/30/19 07:43	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	10/30/19 07:43	
1,3-Dichloropropane	ug/L	<0.83	2.8	10/30/19 07:43	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	10/30/19 07:43	
2,2-Dichloropropane	ug/L	<2.3	7.6	10/30/19 07:43	
2-Chlorotoluene	ug/L	<0.93	5.0	10/30/19 07:43	
4-Chlorotoluene	ug/L	<0.76	2.5	10/30/19 07:43	
Benzene	ug/L	<0.25	1.0	10/30/19 07:43	
Bromobenzene	ug/L	<0.24	1.0	10/30/19 07:43	
Bromochloromethane	ug/L	<0.36	5.0	10/30/19 07:43	
Bromodichloromethane	ug/L	<0.36	1.2	10/30/19 07:43	
Bromoform	ug/L	<4.0	13.2	10/30/19 07:43	
Bromomethane	ug/L	<0.97	5.0	10/30/19 07:43	
Carbon tetrachloride	ug/L	<0.17	1.0	10/30/19 07:43	
Chlorobenzene	ug/L	<0.71	2.4	10/30/19 07:43	
Chloroethane	ug/L	<1.3	5.0	10/30/19 07:43	
Chloroform	ug/L	<1.3	5.0	10/30/19 07:43	
Chloromethane	ug/L	<2.2	7.3	10/30/19 07:43	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/30/19 07:43	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/30/19 07:43	
Dibromochloromethane	ug/L	<2.6	8.7	10/30/19 07:43	
Dibromomethane	ug/L	<0.94	3.1	10/30/19 07:43	
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/30/19 07:43	
Diisopropyl ether	ug/L	<1.9	6.3	10/30/19 07:43	
Ethylbenzene	ug/L	<0.22	1.0	10/30/19 07:43	

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

METHOD BLANK: 1969658

Matrix: Water

Associated Lab Samples: 40198119003, 40198119005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	10/30/19 07:43	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	10/30/19 07:43	
m&p-Xylene	ug/L	<0.47	2.0	10/30/19 07:43	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/30/19 07:43	
Methylene Chloride	ug/L	<0.58	5.0	10/30/19 07:43	
n-Butylbenzene	ug/L	<0.71	2.4	10/30/19 07:43	
n-Propylbenzene	ug/L	<0.81	5.0	10/30/19 07:43	
Naphthalene	ug/L	<1.2	5.0	10/30/19 07:43	
o-Xylene	ug/L	<0.26	1.0	10/30/19 07:43	
p-Isopropyltoluene	ug/L	<0.80	2.7	10/30/19 07:43	
sec-Butylbenzene	ug/L	<0.85	5.0	10/30/19 07:43	
Styrene	ug/L	<0.47	1.6	10/30/19 07:43	
tert-Butylbenzene	ug/L	<0.30	1.0	10/30/19 07:43	
Tetrachloroethene	ug/L	<0.33	1.1	10/30/19 07:43	
Toluene	ug/L	<0.17	5.0	10/30/19 07:43	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	10/30/19 07:43	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/30/19 07:43	
Trichloroethene	ug/L	<0.26	1.0	10/30/19 07:43	
Trichlorofluoromethane	ug/L	<0.21	1.0	10/30/19 07:43	
Vinyl chloride	ug/L	<0.17	1.0	10/30/19 07:43	
4-Bromofluorobenzene (S)	%	92	70-130	10/30/19 07:43	
Dibromofluoromethane (S)	%	99	70-130	10/30/19 07:43	
Toluene-d8 (S)	%	98	70-130	10/30/19 07:43	

LABORATORY CONTROL SAMPLE: 1969659

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	51.4	103	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	45.4	91	70-130	
1,1,2-Trichloroethane	ug/L	50	47.8	96	70-130	
1,1-Dichloroethane	ug/L	50	51.2	102	73-150	
1,1-Dichloroethene	ug/L	50	50.4	101	73-138	
1,2,4-Trichlorobenzene	ug/L	50	48.3	97	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	41.7	83	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	47.5	95	70-130	
1,2-Dichlorobenzene	ug/L	50	48.7	97	70-130	
1,2-Dichloroethane	ug/L	50	47.5	95	75-140	
1,2-Dichloropropane	ug/L	50	45.8	92	73-135	
1,3-Dichlorobenzene	ug/L	50	48.7	97	70-130	
1,4-Dichlorobenzene	ug/L	50	49.1	98	70-130	
Benzene	ug/L	50	47.8	96	70-130	
Bromodichloromethane	ug/L	50	47.9	96	70-130	
Bromoform	ug/L	50	46.8	94	68-129	
Bromomethane	ug/L	50	29.9	60	18-159	

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

LABORATORY CONTROL SAMPLE: 1969659

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	51.3	103	70-130	
Chlorobenzene	ug/L	50	49.8	100	70-130	
Chloroethane	ug/L	50	50.2	100	53-147	
Chloroform	ug/L	50	45.7	91	74-136	
Chloromethane	ug/L	50	45.4	91	29-115	
cis-1,2-Dichloroethene	ug/L	50	46.9	94	70-130	
cis-1,3-Dichloropropene	ug/L	50	48.6	97	70-130	
Dibromochloromethane	ug/L	50	49.9	100	70-130	
Dichlorodifluoromethane	ug/L	50	57.2	114	10-130	
Ethylbenzene	ug/L	50	51.8	104	80-124	
Isopropylbenzene (Cumene)	ug/L	50	48.7	97	70-130	
m&p-Xylene	ug/L	100	107	107	70-130	
Methyl-tert-butyl ether	ug/L	50	45.2	90	54-137	
Methylene Chloride	ug/L	50	47.3	95	73-138	
o-Xylene	ug/L	50	52.3	105	70-130	
Styrene	ug/L	50	47.7	95	70-130	
Tetrachloroethene	ug/L	50	50.3	101	70-130	
Toluene	ug/L	50	50.5	101	80-126	
trans-1,2-Dichloroethene	ug/L	50	52.6	105	73-145	
trans-1,3-Dichloropropene	ug/L	50	44.4	89	70-130	
Trichloroethene	ug/L	50	51.6	103	70-130	
Trichlorofluoromethane	ug/L	50	52.8	106	76-147	
Vinyl chloride	ug/L	50	53.3	107	51-120	
4-Bromofluorobenzene (S)	%			98	70-130	
Dibromofluoromethane (S)	%			97	70-130	
Toluene-d8 (S)	%			97	70-130	

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### QUALITY CONTROL DATA

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

QC Batch: 339428

Analysis Method: ASTM D2974-87

QC Batch Method: ASTM D2974-87

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 40198119001, 40198119002

SAMPLE DUPLICATE: 1971208

Parameter	Units	40198311001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.3	6.3	1	10	

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## QUALIFIERS

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

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### 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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

W Non-detect results are reported on a wet weight basis.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58197210 LAKE COUNTRY SQ LSI

Pace Project No.: 40198119

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40198119001	P-1 (2)	EPA 5035/5030B	339311	EPA 8260	339316
40198119002	P-1 (9)	EPA 5035/5030B	339173	EPA 8260	339177
40198119004	MEOH BLANK	EPA 5035/5030B	339311	EPA 8260	339316
40198119003	P-1	EPA 8260	339122		
40198119005	HCL TRIP BLANK	EPA 8260	339122		
40198119001	P-1 (2)	ASTM D2974-87	339428		
40198119002	P-1 (9)	ASTM D2974-87	339428		

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(Please Print Clearly)

Company Name: **Terracon**  
 Branch/Location: **Franklin, WI**  
 Project Contact: **Anthony Labrusca**  
 Phone: **262 501-4080**  
 Project Number: **58197210**  
 Project Name: **Lake Country Square Lst**  
 Project State: **WI**  
 Sampled By (Print): **Anthony Labrusca**  
 Sampled By (Sign): *[Signature]*  
 PO #:



UPPER MIDWEST REGION  
 MN: 612-607-1700 WI: 920-469-2436

Page 1 of 1  
 40198119  
 Page 33 of 35

### CHAIN OF CUSTODY

\*Preservation Codes  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?  
(YES/NO)  
 PRESERVATION  
(CODE)\*

Y/N	Pick Letter	Analyses Requested
	F	VOCs
	B	VOCs
		Oil Moisture

Quote #:  
 Mail To Contact:  
 Mail To Company:  
 Mail To Address:  
 Invoice To Contact: **Anthony Labrusca**  
 Invoice To Company: **Terracon**  
 Invoice To Address:  
 Invoice To Phone:

Data Package Options (billable)  
 EPA Level III  
 EPA Level IV

MS/MSD  
 On your sample (billable)  
 NOT needed on your sample

Matrix Codes  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	P-1 (2)	10/25/19	1106	S
002	P-1 (9)	↓	1110	S
003	P-1	↓	1145	W
004	MCOH Blank	↓	-	S
005	HCl Trip Blank	↓	-	W

CLIENT COMMENTS  
 LAB COMMENTS (Lab Use Only)  
 Profile #

Rush Turnaround Time Requested - Prelims  
 (Rush TAT subject to approval/surcharge)  
 Date Needed: **11/4/19**

Transmit Prelim Rush Results by (complete what you want):  
 Email #1:  
 Email #2:  
 Telephone:  
 Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By: *[Signature]* Date/Time: **10/28/19 1118**  
 Relinquished By: *[Signature]* Date/Time: **10/28/19 1300**  
 Relinquished By: *[Signature]* Date/Time: **10/29/19 0850**  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: *[Signature]* Date/Time: **10/25/19 11:18**  
 Received By: *[Signature]* Date/Time: \_\_\_\_\_  
 Received By: *[Signature]* Date/Time: **10/29/19 0850**  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

PACE Project No. **40198119**  
 Receipt Temp = **ROT** °C  
 Sample Receipt  Present /  Not Present  
 Cooler Custody Seal  Intact /  Not Intact



# Sample Preservation Receipt Form

Pace Analytical Services, LLC  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

Client Name: Terracor

Project # 40198119

Page 3 of 3

All containers needing preservation have been checked and noted below:  Yes  No  N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:


Date/Time:

Pace Lab #	Glass						Plastic						Vials					Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤	pH after adjusted	Volume (mL)		
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU								SP5T	ZPLC
001																		1														2.5 / 5 / 10
002																		1														2.5 / 5 / 10
003																	3															2.5 / 5 / 10
004																	1															2.5 / 5 / 10
005																	2															2.5 / 5 / 10
006																																2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
010																																2.5 / 5 / 10
011																																2.5 / 5 / 10
012																																2.5 / 5 / 10
013																																2.5 / 5 / 10
014																																2.5 / 5 / 10
015																																2.5 / 5 / 10
016																																2.5 / 5 / 10
017																																2.5 / 5 / 10
018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

10/29/19 SW

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: \_\_\_\_\_ Headspace in VOA Vials (>6mm) :  Yes  No  N/A \*If yes look in headspace column

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3B	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

 1241 Bellevue Street, Green Bay, WI 54302	Document Name: <b>Sample Condition Upon Receipt (SCUR)</b>	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

**Client Name:** Terracon  
**Courier:**  CS Logistics  Fed Ex  Speedee  UPS  Walco  
 Client  Pace Other: \_\_\_\_\_

Project #: \_\_\_\_\_  
**WO#: 40198119**  
  
 40198119

**Tracking #:** \_\_\_\_\_  
**Custody Seal on Cooler/Box Present:**  yes  no    **Seals intact:**  yes  no  
**Custody Seal on Samples Present:**  yes  no    **Seals intact:**  yes  no  
**Packing Material:**  Bubble Wrap  Bubble Bags  None  Other  
**Thermometer Used:** SR - N/A    **Type of Ice:**  Wet  Blue Dry  None     Samples on ice, cooling process has begun  
**Cooler Temperature:** Uncorr: ROI / Corr: \_\_\_\_\_  
**Temp Blank Present:**  yes  no    **Biological Tissue is Frozen:**  yes  no  
 Temp should be above freezing to 6°C.  
 Biota Samples may be received at ≤ 0°C.

**Person examining contents:**  
 Date: 10-29-19  
 Initials: SKW

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis    Matrix: <u>S+W</u>		
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

**Client Notification/ Resolution:** \_\_\_\_\_ If checked, see attached form for additional comments   
 Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Comments/ Resolution: \_\_\_\_\_

**Project Manager Review:** AL Ar IR DM    **Date:** 10/29/19  
 10/29/19 AL    Page 2 of 2  
 Page 35 of 35



October 31, 2019

Anthony Labrasca  
Terracon  
9856 South 57th Street  
Franklin, WI 53132


RE: Project: 58197210 Lake County LSI  
Pace Project No.: 10497157

Dear Anthony Labrasca:

Enclosed are the analytical results for sample(s) received by the laboratory on October 28, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Kirsten Hogberg  
kirsten.hogberg@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

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### Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485

A2LA Certification #: 2926.01

Alabama Certification #: 40770

Alaska Contaminated Sites Certification #: 17-009

Alaska DW Certification #: MN00064

Arizona Certification #: AZ0014

Arkansas DW Certification #: MN00064

Arkansas WW Certification #: 88-0680

California Certification #: 2929

CNMI Saipan Certification #: MP0003

Colorado Certification #: MN00064

Connecticut Certification #: PH-0256

EPA Region 8+Wyoming DW Certification #: via MN 027-053-137

Florida Certification #: E87605

Georgia Certification #: 959

Guam EPA Certification #: MN00064

Hawaii Certification #: MN00064

Idaho Certification #: MN00064

Illinois Certification #: 200011

Indiana Certification #: C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky DW Certification #: 90062

Kentucky WW Certification #: 90062

Louisiana DEQ Certification #: 03086

Louisiana DW Certification #: MN00064

Maine Certification #: MN00064

Maryland Certification #: 322

Massachusetts Certification #: M-MN064

Michigan Certification #: 9909

Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137

Minnesota Petrofund Certification #: 1240

Mississippi Certification #: MN00064

Missouri Certification #: 10100

Montana Certification #: CERT0092

Nebraska Certification #: NE-OS-18-06

Nevada Certification #: MN00064

New Hampshire Certification #: 2081

New Jersey Certification #: MN002

New York Certification #: 11647

North Carolina DW Certification #: 27700

North Carolina WW Certification #: 530

North Dakota Certification #: R-036

Ohio DW Certification #: 41244

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon Primary Certification #: MN300001

Oregon Secondary Certification #: MN200001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification #: MN00064

South Carolina Certification #: 74003001

Tennessee Certification #: TN02818

Texas Certification #: T104704192

Utah Certification #: MN00064

Vermont Certification #: VT-027053137

Virginia Certification #: 460163

Washington Certification #: C486

West Virginia DEP Certification #: 382

West Virginia DW Certification #: 9952 C

Wisconsin Certification #: 999407970

Wyoming UST Certification #: via A2LA 2926.01

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: 58197210 Lake County LSI  
Pace Project No.: 10497157

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10497157001	VP-1	Air	10/25/19 10:27	10/28/19 11:30

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 58197210 Lake County LSI  
Pace Project No.: 10497157

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Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10497157001	VP-1	TO-15	MG2	61	PASI-M

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

Sample: VP-1 Lab ID: 10497157001 Collected: 10/25/19 10:27 Received: 10/28/19 11:30 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
Acetone	80.5	ug/m3	4.7	2.4	1.97		10/29/19 19:49	67-64-1	
Benzene	15.5	ug/m3	1.3	0.30	1.97		10/29/19 19:49	71-43-2	
Benzyl chloride	<2.4	ug/m3	5.2	2.4	1.97		10/29/19 19:49	100-44-7	
Bromodichloromethane	<0.72	ug/m3	2.7	0.72	1.97		10/29/19 19:49	75-27-4	
Bromoform	<2.8	ug/m3	10.3	2.8	1.97		10/29/19 19:49	75-25-2	
Bromomethane	<0.45	ug/m3	1.6	0.45	1.97		10/29/19 19:49	74-83-9	
1,3-Butadiene	<0.25	ug/m3	0.89	0.25	1.97		10/29/19 19:49	106-99-0	
2-Butanone (MEK)	2.0J	ug/m3	5.9	0.73	1.97		10/29/19 19:49	78-93-3	
Carbon disulfide	<0.43	ug/m3	1.2	0.43	1.97		10/29/19 19:49	75-15-0	
Carbon tetrachloride	<0.85	ug/m3	2.5	0.85	1.97		10/29/19 19:49	56-23-5	
Chlorobenzene	<0.54	ug/m3	1.8	0.54	1.97		10/29/19 19:49	108-90-7	
Chloroethane	<0.51	ug/m3	1.1	0.51	1.97		10/29/19 19:49	75-00-3	
Chloroform	<0.39	ug/m3	0.98	0.39	1.97		10/29/19 19:49	67-66-3	
Chloromethane	<0.31	ug/m3	0.83	0.31	1.97		10/29/19 19:49	74-87-3	
Cyclohexane	10.4	ug/m3	3.4	0.70	1.97		10/29/19 19:49	110-82-7	
Dibromochloromethane	<1.4	ug/m3	3.4	1.4	1.97		10/29/19 19:49	124-48-1	
1,2-Dibromoethane (EDB)	<0.72	ug/m3	1.5	0.72	1.97		10/29/19 19:49	106-93-4	
1,2-Dichlorobenzene	<0.98	ug/m3	2.4	0.98	1.97		10/29/19 19:49	95-50-1	
1,3-Dichlorobenzene	<1.1	ug/m3	2.4	1.1	1.97		10/29/19 19:49	541-73-1	
1,4-Dichlorobenzene	<2.0	ug/m3	6.0	2.0	1.97		10/29/19 19:49	106-46-7	
Dichlorodifluoromethane	180000	ug/m3	1740	503	1718		10/30/19 11:58	75-71-8	
1,1-Dichloroethane	<0.44	ug/m3	1.6	0.44	1.97		10/29/19 19:49	75-34-3	
1,2-Dichloroethane	<0.30	ug/m3	0.81	0.30	1.97		10/29/19 19:49	107-06-2	
1,1-Dichloroethene	<0.54	ug/m3	1.6	0.54	1.97		10/29/19 19:49	75-35-4	
cis-1,2-Dichloroethene	<0.43	ug/m3	1.6	0.43	1.97		10/29/19 19:49	156-59-2	
trans-1,2-Dichloroethene	<0.56	ug/m3	1.6	0.56	1.97		10/29/19 19:49	156-60-5	
1,2-Dichloropropane	<0.45	ug/m3	1.8	0.45	1.97		10/29/19 19:49	78-87-5	
cis-1,3-Dichloropropene	<0.60	ug/m3	1.8	0.60	1.97		10/29/19 19:49	10061-01-5	
trans-1,3-Dichloropropene	<0.87	ug/m3	1.8	0.87	1.97		10/29/19 19:49	10061-02-6	
Dichlorotetrafluoroethane	<0.86	ug/m3	2.8	0.86	1.97		10/29/19 19:49	76-14-2	
Ethanol	25.0	ug/m3	3.8	1.6	1.97		10/29/19 19:49	64-17-5	
Ethyl acetate	<0.37	ug/m3	1.4	0.37	1.97		10/29/19 19:49	141-78-6	
Ethylbenzene	5.4	ug/m3	1.7	0.60	1.97		10/29/19 19:49	100-41-4	
4-Ethyltoluene	<1.1	ug/m3	4.9	1.1	1.97		10/29/19 19:49	622-96-8	
n-Heptane	35.4	ug/m3	1.6	0.75	1.97		10/29/19 19:49	142-82-5	
Hexachloro-1,3-butadiene	<3.9	ug/m3	10.7	3.9	1.97		10/29/19 19:49	87-68-3	
n-Hexane	28.8	ug/m3	1.4	0.61	1.97		10/29/19 19:49	110-54-3	
2-Hexanone	<1.5	ug/m3	8.2	1.5	1.97		10/29/19 19:49	591-78-6	
Methylene Chloride	16.2	ug/m3	7.0	2.4	1.97		10/29/19 19:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	<1.0	ug/m3	8.2	1.0	1.97		10/29/19 19:49	108-10-1	
Methyl-tert-butyl ether	<1.3	ug/m3	7.2	1.3	1.97		10/29/19 19:49	1634-04-4	
Naphthalene	<2.6	ug/m3	5.2	2.6	1.97		10/29/19 19:49	91-20-3	
2-Propanol	4.6J	ug/m3	4.9	1.4	1.97		10/29/19 19:49	67-63-0	
Propylene	<0.28	ug/m3	0.69	0.28	1.97		10/29/19 19:49	115-07-1	
Styrene	2.7	ug/m3	1.7	0.68	1.97		10/29/19 19:49	100-42-5	
1,1,2,2-Tetrachloroethane	<0.61	ug/m3	1.4	0.61	1.97		10/29/19 19:49	79-34-5	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

Sample: VP-1      Lab ID: 10497157001      Collected: 10/25/19 10:27      Received: 10/28/19 11:30      Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15							
Tetrachloroethene	37.9	ug/m3	1.4	0.62	1.97		10/29/19 19:49	127-18-4	
Tetrahydrofuran	<0.51	ug/m3	1.2	0.51	1.97		10/29/19 19:49	109-99-9	
Toluene	21.8	ug/m3	1.5	0.69	1.97		10/29/19 19:49	108-88-3	
1,2,4-Trichlorobenzene	<7.3	ug/m3	14.9	7.3	1.97		10/29/19 19:49	120-82-1	
1,1,1-Trichloroethane	<0.61	ug/m3	2.2	0.61	1.97		10/29/19 19:49	71-55-6	
1,1,2-Trichloroethane	<0.48	ug/m3	1.1	0.48	1.97		10/29/19 19:49	79-00-5	
Trichloroethene	5.5	ug/m3	1.1	0.50	1.97		10/29/19 19:49	79-01-6	
Trichlorofluoromethane	1.7J	ug/m3	2.2	0.72	1.97		10/29/19 19:49	75-69-4	
1,1,2-Trichlorotrifluoroethane	<1.1	ug/m3	3.1	1.1	1.97		10/29/19 19:49	76-13-1	
1,2,4-Trimethylbenzene	2.6	ug/m3	2.0	0.89	1.97		10/29/19 19:49	95-63-6	
1,3,5-Trimethylbenzene	0.81J	ug/m3	2.0	0.79	1.97		10/29/19 19:49	108-67-8	
Vinyl acetate	<0.53	ug/m3	1.4	0.53	1.97		10/29/19 19:49	108-05-4	
Vinyl chloride	<0.25	ug/m3	1.0	0.25	1.97		10/29/19 19:49	75-01-4	
m&p-Xylene	8.8	ug/m3	3.5	1.4	1.97		10/29/19 19:49	179601-23-1	
o-Xylene	3.3	ug/m3	1.7	0.68	1.97		10/29/19 19:49	95-47-6	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

QC Batch: 641557

Analysis Method: TO-15

QC Batch Method: TO-15

Analysis Description: TO15 MSV AIR Low Level

Associated Lab Samples: 10497157001

METHOD BLANK: 3455258

Matrix: Air

Associated Lab Samples: 10497157001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.31	1.1	10/29/19 12:45	
1,1,2,2-Tetrachloroethane	ug/m3	<0.31	0.70	10/29/19 12:45	
1,1,2-Trichloroethane	ug/m3	<0.24	0.56	10/29/19 12:45	
1,1,2-Trichlorotrifluoroethane	ug/m3	<0.56	1.6	10/29/19 12:45	
1,1-Dichloroethane	ug/m3	<0.22	0.82	10/29/19 12:45	
1,1-Dichloroethene	ug/m3	<0.27	0.81	10/29/19 12:45	
1,2,4-Trichlorobenzene	ug/m3	<3.7	7.5	10/29/19 12:45	
1,2,4-Trimethylbenzene	ug/m3	<0.45	1.0	10/29/19 12:45	
1,2-Dibromoethane (EDB)	ug/m3	<0.37	0.78	10/29/19 12:45	
1,2-Dichlorobenzene	ug/m3	<0.50	1.2	10/29/19 12:45	
1,2-Dichloroethane	ug/m3	<0.15	0.41	10/29/19 12:45	
1,2-Dichloropropane	ug/m3	<0.23	0.94	10/29/19 12:45	
1,3,5-Trimethylbenzene	ug/m3	<0.40	1.0	10/29/19 12:45	
1,3-Butadiene	ug/m3	<0.13	0.45	10/29/19 12:45	
1,3-Dichlorobenzene	ug/m3	<0.58	1.2	10/29/19 12:45	
1,4-Dichlorobenzene	ug/m3	<1.0	3.1	10/29/19 12:45	
2-Butanone (MEK)	ug/m3	<0.37	3.0	10/29/19 12:45	
2-Hexanone	ug/m3	<0.74	4.2	10/29/19 12:45	
2-Propanol	ug/m3	<0.70	2.5	10/29/19 12:45	
4-Ethyltoluene	ug/m3	<0.57	2.5	10/29/19 12:45	
4-Methyl-2-pentanone (MIBK)	ug/m3	<0.52	4.2	10/29/19 12:45	
Acetone	ug/m3	<1.2	2.4	10/29/19 12:45	
Benzene	ug/m3	<0.15	0.65	10/29/19 12:45	
Benzyl chloride	ug/m3	<1.2	2.6	10/29/19 12:45	
Bromodichloromethane	ug/m3	<0.37	1.4	10/29/19 12:45	
Bromoform	ug/m3	<1.4	5.2	10/29/19 12:45	
Bromomethane	ug/m3	<0.23	0.79	10/29/19 12:45	
Carbon disulfide	ug/m3	<0.22	0.63	10/29/19 12:45	
Carbon tetrachloride	ug/m3	<0.43	1.3	10/29/19 12:45	
Chlorobenzene	ug/m3	<0.28	0.94	10/29/19 12:45	
Chloroethane	ug/m3	<0.26	0.54	10/29/19 12:45	
Chloroform	ug/m3	<0.20	0.50	10/29/19 12:45	
Chloromethane	ug/m3	<0.16	0.42	10/29/19 12:45	
cis-1,2-Dichloroethene	ug/m3	<0.22	0.81	10/29/19 12:45	
cis-1,3-Dichloropropene	ug/m3	<0.30	0.92	10/29/19 12:45	
Cyclohexane	ug/m3	<0.35	1.8	10/29/19 12:45	
Dibromochloromethane	ug/m3	<0.72	1.7	10/29/19 12:45	
Dichlorodifluoromethane	ug/m3	<0.29	1.0	10/29/19 12:45	
Dichlorotetrafluoroethane	ug/m3	<0.44	1.4	10/29/19 12:45	
Ethanol	ug/m3	<0.81	1.9	10/29/19 12:45	
Ethyl acetate	ug/m3	<0.19	0.73	10/29/19 12:45	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

METHOD BLANK: 3455258

Matrix: Air

Associated Lab Samples: 10497157001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/m3	<0.30	0.88	10/29/19 12:45	
Hexachloro-1,3-butadiene	ug/m3	<2.0	5.4	10/29/19 12:45	
m&p-Xylene	ug/m3	<0.70	1.8	10/29/19 12:45	
Methyl-tert-butyl ether	ug/m3	<0.66	3.7	10/29/19 12:45	
Methylene Chloride	ug/m3	2.3J	3.5	10/29/19 12:45	
n-Heptane	ug/m3	<0.38	0.83	10/29/19 12:45	
n-Hexane	ug/m3	<0.31	0.72	10/29/19 12:45	
Naphthalene	ug/m3	<1.3	2.7	10/29/19 12:45	
o-Xylene	ug/m3	<0.34	0.88	10/29/19 12:45	
Propylene	ug/m3	<0.14	0.35	10/29/19 12:45	
Styrene	ug/m3	<0.34	0.87	10/29/19 12:45	
Tetrachloroethene	ug/m3	<0.31	0.69	10/29/19 12:45	
Tetrahydrofuran	ug/m3	<0.26	0.60	10/29/19 12:45	
Toluene	ug/m3	<0.35	0.77	10/29/19 12:45	
trans-1,2-Dichloroethene	ug/m3	<0.28	0.81	10/29/19 12:45	
trans-1,3-Dichloropropene	ug/m3	<0.44	0.92	10/29/19 12:45	
Trichloroethene	ug/m3	<0.25	0.55	10/29/19 12:45	
Trichlorofluoromethane	ug/m3	<0.37	1.1	10/29/19 12:45	
Vinyl acetate	ug/m3	<0.27	0.72	10/29/19 12:45	
Vinyl chloride	ug/m3	<0.13	0.52	10/29/19 12:45	

LABORATORY CONTROL SAMPLE: 3455259

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	56.6	59.9	106	70-130	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	66.6	95	70-132	
1,1,2-Trichloroethane	ug/m3	58.2	54.4	93	70-130	
1,1,2-Trichlorotrifluoroethane	ug/m3	84.9	85.5	101	70-130	
1,1-Dichloroethane	ug/m3	42.4	45.0	106	70-130	
1,1-Dichloroethene	ug/m3	43.5	42.2	97	70-130	
1,2,4-Trichlorobenzene	ug/m3	74.7	64.9	87	56-130	
1,2,4-Trimethylbenzene	ug/m3	53	51.3	97	70-134	
1,2-Dibromoethane (EDB)	ug/m3	83.6	79.1	95	70-130	
1,2-Dichlorobenzene	ug/m3	59.9	64.1	107	70-132	
1,2-Dichloroethane	ug/m3	42.8	43.1	101	70-130	
1,2-Dichloropropane	ug/m3	48.4	46.6	96	70-130	
1,3,5-Trimethylbenzene	ug/m3	53.5	49.9	93	70-132	
1,3-Butadiene	ug/m3	22.5	21.6	96	65-130	
1,3-Dichlorobenzene	ug/m3	65.4	63.7	97	70-137	
1,4-Dichlorobenzene	ug/m3	65.4	57.3	88	70-134	
2-Butanone (MEK)	ug/m3	32.4	27.4	85	70-130	
2-Hexanone	ug/m3	42.9	40.1	94	70-135	
2-Propanol	ug/m3	26.5	30.7	116	68-130	
4-Ethyltoluene	ug/m3	52	51.3	99	70-138	

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### QUALITY CONTROL DATA

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

LABORATORY CONTROL SAMPLE: 3455259

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/m3	42	41.8	99	70-131	
Acetone	ug/m3	26.6	26.3	99	67-130	
Benzene	ug/m3	34.4	34.4	100	70-130	
Benzyl chloride	ug/m3	56.3	45.1	80	70-130	
Bromodichloromethane	ug/m3	69.5	69.2	100	70-130	
Bromoform	ug/m3	97.7	100	103	70-132	
Bromomethane	ug/m3	40.6	39.3	97	69-130	
Carbon disulfide	ug/m3	32.9	33.1	100	56-137	
Carbon tetrachloride	ug/m3	65.9	63.8	97	66-131	
Chlorobenzene	ug/m3	49.6	47.7	96	70-130	
Chloroethane	ug/m3	26.8	28.6	107	70-130	
Chloroform	ug/m3	52.6	54.2	103	70-130	
Chloromethane	ug/m3	22.2	21.0	95	66-130	
cis-1,2-Dichloroethene	ug/m3	41.9	40.4	96	70-130	
cis-1,3-Dichloropropene	ug/m3	48	44.3	92	70-133	
Cyclohexane	ug/m3	35.3	34.9	99	68-132	
Dibromochloromethane	ug/m3	90	84.7	94	70-130	
Dichlorodifluoromethane	ug/m3	52.8	52.7	100	70-130	
Dichlorotetrafluoroethane	ug/m3	74.6	73.8	99	70-130	
Ethanol	ug/m3	21.1	21.4	102	68-133	
Ethyl acetate	ug/m3	38.8	37.0	95	69-130	
Ethylbenzene	ug/m3	45.5	46.1	101	67-131	
Hexachloro-1,3-butadiene	ug/m3	108	120	111	66-137	
m&p-Xylene	ug/m3	45.9	52.5	114	70-132	
Methyl-tert-butyl ether	ug/m3	37.4	36.7	98	70-130	
Methylene Chloride	ug/m3	38.1	39.0	102	65-130	
n-Heptane	ug/m3	43.7	41.0	94	65-130	
n-Hexane	ug/m3	37.6	35.2	93	66-130	
Naphthalene	ug/m3	52.7	53.1	101	56-130	
o-Xylene	ug/m3	44.1	45.7	103	70-130	
Propylene	ug/m3	19.2	16.6	86	67-130	
Styrene	ug/m3	44.2	44.0	100	69-136	
Tetrachloroethene	ug/m3	70.3	69.0	98	70-130	
Tetrahydrofuran	ug/m3	30.3	32.6	108	68-131	
Toluene	ug/m3	39.4	38.4	97	70-130	
trans-1,2-Dichloroethene	ug/m3	41.5	42.2	102	70-130	
trans-1,3-Dichloropropene	ug/m3	44.8	47.4	106	70-134	
Trichloroethene	ug/m3	56.3	55.0	98	70-130	
Trichlorofluoromethane	ug/m3	58.8	60.1	102	65-130	
Vinyl acetate	ug/m3	35.1	37.2	106	61-133	
Vinyl chloride	ug/m3	28.1	26.2	93	70-130	

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### QUALITY CONTROL DATA

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

SAMPLE DUPLICATE: 3456886

Parameter	Units	10497063001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	<0.46		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	<0.46		25	
1,1,2-Trichloroethane	ug/m3	ND	<0.36		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	<0.84		25	
1,1-Dichloroethane	ug/m3	ND	<0.34		25	
1,1-Dichloroethene	ug/m3	ND	<0.41		25	
1,2,4-Trichlorobenzene	ug/m3	ND	<5.5		25	
1,2,4-Trimethylbenzene	ug/m3	ND	<0.67		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	<0.55		25	
1,2-Dichlorobenzene	ug/m3	ND	<0.74		25	
1,2-Dichloroethane	ug/m3	ND	<0.22		25	
1,2-Dichloropropane	ug/m3	ND	<0.34		25	
1,3,5-Trimethylbenzene	ug/m3	ND	<0.59		25	
1,3-Butadiene	ug/m3	ND	<0.19		25	
1,3-Dichlorobenzene	ug/m3	ND	<0.87		25	
1,4-Dichlorobenzene	ug/m3	ND	<1.5		25	
2-Butanone (MEK)	ug/m3	ND	1.2J		25	
2-Hexanone	ug/m3	ND	<1.1		25	
2-Propanol	ug/m3	ND	<1.0		25	
4-Ethyltoluene	ug/m3	ND	<0.85		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	<0.77		25	
Acetone	ug/m3	8.4	8.1	3	25	
Benzene	ug/m3	ND	0.39J		25	
Benzyl chloride	ug/m3	ND	<1.8		25	
Bromodichloromethane	ug/m3	ND	<0.55		25	
Bromoform	ug/m3	ND	<2.1		25	
Bromomethane	ug/m3	ND	<0.34		25	
Carbon disulfide	ug/m3	ND	<0.33		25	
Carbon tetrachloride	ug/m3	ND	<0.64		25	
Chlorobenzene	ug/m3	ND	<0.41		25	
Chloroethane	ug/m3	ND	<0.39		25	
Chloroform	ug/m3	ND	<0.29		25	
Chloromethane	ug/m3	0.71	0.65	9	25	
cis-1,2-Dichloroethene	ug/m3	ND	<0.33		25	
cis-1,3-Dichloropropene	ug/m3	ND	<0.45		25	
Cyclohexane	ug/m3	ND	1.3J		25	
Dibromochloromethane	ug/m3	ND	<1.1		25	
Dichlorodifluoromethane	ug/m3	2.6	2.8	6	25	
Dichlorotetrafluoroethane	ug/m3	ND	<0.65		25	
Ethanol	ug/m3	4.6	5.0	9	25	
Ethyl acetate	ug/m3	ND	<0.28		25	
Ethylbenzene	ug/m3	ND	<0.45		25	
Hexachloro-1,3-butadiene	ug/m3	ND	<2.9		25	
m&p-Xylene	ug/m3	ND	<1.0		25	
Methyl-tert-butyl ether	ug/m3	ND	<0.99		25	
Methylene Chloride	ug/m3	5.9	5.4	7	25	
n-Heptane	ug/m3	ND	1.0J		25	

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### QUALITY CONTROL DATA

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

SAMPLE DUPLICATE: 3456886

Parameter	Units	10497063001 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Hexane	ug/m3	2.5	2.3	6	25	
Naphthalene	ug/m3	ND	<2.0		25	
o-Xylene	ug/m3	ND	<0.51		25	
Propylene	ug/m3	ND	<0.21		25	
Styrene	ug/m3	ND	0.73J		25	
Tetrachloroethene	ug/m3	ND	<0.47		25	
Tetrahydrofuran	ug/m3	ND	<0.39		25	
Toluene	ug/m3	ND	1.0J		25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.42		25	
trans-1,3-Dichloropropene	ug/m3	ND	<0.66		25	
Trichloroethene	ug/m3	ND	<0.38		25	
Trichlorofluoromethane	ug/m3	ND	1.3J		25	
Vinyl acetate	ug/m3	ND	<0.40		25	
Vinyl chloride	ug/m3	ND	<0.19		25	

SAMPLE DUPLICATE: 3456887

Parameter	Units	60319435001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	<0.48		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	<0.48		25	
1,1,2-Trichloroethane	ug/m3	ND	<0.38		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	<0.87		25	
1,1-Dichloroethane	ug/m3	ND	<0.35		25	
1,1-Dichloroethene	ug/m3	ND	<0.42		25	
1,2,4-Trichlorobenzene	ug/m3	ND	<5.8		25	
1,2,4-Trimethylbenzene	ug/m3	ND	<0.70		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	<0.57		25	
1,2-Dichlorobenzene	ug/m3	ND	<0.77		25	
1,2-Dichloroethane	ug/m3	ND	<0.23		25	
1,2-Dichloropropane	ug/m3	ND	<0.36		25	
1,3,5-Trimethylbenzene	ug/m3	ND	<0.62		25	
1,3-Butadiene	ug/m3	ND	<0.20		25	
1,3-Dichlorobenzene	ug/m3	ND	<0.90		25	
1,4-Dichlorobenzene	ug/m3	ND	<1.6		25	
2-Butanone (MEK)	ug/m3	ND	1.6J		25	
2-Hexanone	ug/m3	ND	<1.2		25	
2-Propanol	ug/m3	4.8	4.4	9	25	
4-Ethyltoluene	ug/m3	ND	<0.88		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	<0.80		25	
Acetone	ug/m3	28.6	28.4	1	25	
Benzene	ug/m3	ND	0.84J		25	
Benzyl chloride	ug/m3	ND	<1.9		25	
Bromodichloromethane	ug/m3	ND	<0.57		25	
Bromoform	ug/m3	ND	<2.2		25	
Bromomethane	ug/m3	ND	<0.35		25	

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### QUALITY CONTROL DATA

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

SAMPLE DUPLICATE: 3456887

Parameter	Units	60319435001 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbon disulfide	ug/m3	ND	<0.34		25	
Carbon tetrachloride	ug/m3	ND	<0.66		25	
Chlorobenzene	ug/m3	ND	<0.43		25	
Chloroethane	ug/m3	ND	<0.40		25	
Chloroform	ug/m3	ND	<0.30		25	
Chloromethane	ug/m3	1.4	1.4	5	25	
cis-1,2-Dichloroethene	ug/m3	ND	<0.34		25	
cis-1,3-Dichloropropene	ug/m3	ND	<0.47		25	
Cyclohexane	ug/m3	ND	2.5J		25	
Dibromochloromethane	ug/m3	ND	<1.1		25	
Dichlorodifluoromethane	ug/m3	2.7	2.6	2	25	
Dichlorotetrafluoroethane	ug/m3	ND	<0.68		25	
Ethanol	ug/m3	1320	1350	3	25	
Ethyl acetate	ug/m3	3.0	3.1	3	25	
Ethylbenzene	ug/m3	ND	<0.47		25	
Hexachloro-1,3-butadiene	ug/m3	ND	<3.1		25	
m&p-Xylene	ug/m3	ND	1.2J		25	
Methyl-tert-butyl ether	ug/m3	ND	<1.0		25	
Methylene Chloride	ug/m3	8.2	13.0	45	25	R 1
n-Heptane	ug/m3	2.0	1.8	12	25	
n-Hexane	ug/m3	5.3	6.8	26	25	R 1
Naphthalene	ug/m3	ND	<2.0		25	
o-Xylene	ug/m3	ND	<0.53		25	
Propylene	ug/m3	ND	<0.22		25	
Styrene	ug/m3	ND	<0.53		25	
Tetrachloroethene	ug/m3	ND	<0.49		25	
Tetrahydrofuran	ug/m3	ND	<0.40		25	
Toluene	ug/m3	2.5	2.4	5	25	
trans-1,2-Dichloroethene	ug/m3	ND	<0.44		25	
trans-1,3-Dichloropropene	ug/m3	ND	<0.68		25	
Trichloroethene	ug/m3	ND	<0.39		25	
Trichlorofluoromethane	ug/m3	ND	1.4J		25	
Vinyl acetate	ug/m3	ND	<0.42		25	
Vinyl chloride	ug/m3	ND	<0.20		25	

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## QUALIFIERS

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

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### 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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58197210 Lake County LSI

Pace Project No.: 10497157

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Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10497157001	VP-1	TO-15	641557		

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### REPORT OF LABORATORY ANALYSIS

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# AIR: CHAIN-OF-CUSTODY / Analytical Request Document

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

46033

Page: 1 of 1

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:		Program	
Company: Terraco		Report To: Anthony Lebrasc		Attention: →		<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act <input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Address: 9856 S. 57th St. Franklin, WI 53202		Copy To:		Company Name: Terraco		Location of Sampling by State: <u>WI</u>	
Email To: Anthony.Lebrasc@Terraco.com		Purchase Order No.:		Address: →		Reporting Units <input checked="" type="checkbox"/> ug/m <sup>3</sup> <input type="checkbox"/> mg/m <sup>3</sup> <input type="checkbox"/> PPBV <input type="checkbox"/> PPMV <input type="checkbox"/> Other	
Phone: 262 561-4080		Project Name: Lake Country Golf		Pace Quote Reference:		Report Level: <u>II</u> <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other	
Requested Due Date/TAT: 11/24/19		Project Number: 58197210		Pace Project Manager/Sales Rep: Kirsten Hojberg		Pace Profile #: 31924	

ITEM #	Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Summa Can Number	Flow Control Number	Method: PM10 3C - Fixed Gas (%) TO-3 BTEX TO-3M (Methane) TO-14 TO-15 Full List TOCs TO-15 Short List BTEX TO-15 Short List Chlorinated	Pace Lab ID	
					COMPOSITE START		COMPOSITE - ENDGRAB						
					DATE	TIME	DATE	TIME					
1	VP-1		6LC		10/25/19	959	1027	24	9	3443	1026	X	WI
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													

**WO#: 10497157**  
  
 10497157

Comments :	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS							
		Anthony Lebrasc	10/25/19	1530	FEDEX	10-28-19	1130	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: Anthony Lebrasc					
SIGNATURE of SAMPLER:					
DATE Signed (MM/DD/YY): 10/25/19					

ORIGINAL



Document Name:  
**Air Sample Condition Upon Receipt**

Document No.:  
**F-MN-A-106-rev.19**

Document Revised: 14Oct2019  
Page 1 of 1

Issuing Authority:  
Pace Minnesota Quality Office

**Air Sample Condition Upon Receipt**

Client Name: Terracon

Project #:

**WO#: 10497157**

PM: KNH Due Date: 11/04/19  
CLIENT: Terracon-WI

Courier:  Fed Ex  UPS  USPS  Client  
 Pace  Speedee  Commercial See Exception

Tracking Number: 1083 0281 7171

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C): X Corrected Temp (°C): X Thermometer Used:  G87A9170600254  G87A9155100842

Temp should be above freezing to 6°C Correction Factor: X Date & Initials of Person Examining Contents: 10-28-19 AA

Type of Ice Received  Blue  Wet  None

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7. <u>5 day</u>
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: <u>Air Can</u> Airbag Filter TDT Passive		11. Individually Certified Cans <u>Y</u> <u>N</u> (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Gauge #  10AIR26  10AIR34  10AIR35  4097

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
<u>VD-1</u>	<u>3443</u>	<u>1026</u>	<u>-7.5</u>	<u>+5</u>					

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Field Data Required?  Yes  No

Project Manager Review: Kirsten Hooper Date: 10/28/2019

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



December 05, 2019

Paul Lenaker  
Terracon WI  
9586 S 57th. St.  
Franklin, WI 53132

RE: Project: 52197210 Lake County Square-Revised Report  
Pace Project No.: 10500306

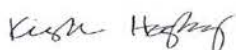
Dear Paul Lenaker:

Enclosed are the analytical results for sample(s) received by the laboratory on November 21, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This report was revised December 5, 2019 to include additional analytes.

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

Sincerely,



Kirsten Hogberg  
kirsten.hogberg@pacelabs.com  
(612)607-1700  
Project Manager

Enclosures

cc: Blaine Schroyer, Terracon Environmental, Inc.



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

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### Pace Analytical Services Minneapolis

A2LA Certification #: 2926.01  
Alabama Certification #: 40770  
Alaska Contaminated Sites Certification #: 17-009  
Alaska DW Certification #: MN00064  
Arizona Certification #: AZ0014  
Arkansas DW Certification #: MN00064  
Arkansas WW Certification #: 88-0680  
California Certification #: 2929  
CNMI Saipan Certification #: MP0003  
Colorado Certification #: MN00064  
Connecticut Certification #: PH-0256  
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137  
Florida Certification #: E87605  
Georgia Certification #: 959  
Guam EPA Certification #: MN00064  
Hawaii Certification #: MN00064  
Idaho Certification #: MN00064  
Illinois Certification #: 200011  
Indiana Certification #: C-MN-01  
Iowa Certification #: 368  
Kansas Certification #: E-10167  
Kentucky DW Certification #: 90062  
Kentucky WW Certification #: 90062  
Louisiana DEQ Certification #: 03086  
Louisiana DW Certification #: MN00064  
Maine Certification #: MN00064  
Maryland Certification #: 322  
Massachusetts Certification #: M-MN064  
Massachusetts DWP Certification #: via MN 027-053-137  
Michigan Certification #: 9909  
Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137  
Minnesota Petrofund Certification #: 1240  
Mississippi Certification #: MN00064  
Missouri Certification #: 10100  
Montana Certification #: CERT0092  
Nebraska Certification #: NE-OS-18-06  
Nevada Certification #: MN00064  
New Hampshire Certification #: 2081  
New Jersey Certification #: MN002  
New York Certification #: 11647  
North Carolina DW Certification #: 27700  
North Carolina WW Certification #: 530  
North Dakota Certification #: R-036  
Ohio DW Certification #: 41244  
Ohio VAP Certification #: CL101  
Oklahoma Certification #: 9507  
Oregon Primary Certification #: MN300001  
Oregon Secondary Certification #: MN200001  
Pennsylvania Certification #: 68-00563  
Puerto Rico Certification #: MN00064  
South Carolina Certification #: 74003001  
Tennessee Certification #: TN02818  
Texas Certification #: T104704192  
Utah Certification #: MN00064  
Vermont Certification #: VT-027053137  
Virginia Certification #: 460163  
Washington Certification #: C486  
West Virginia DEP Certification #: 382  
West Virginia DW Certification #: 9952 C  
Wisconsin Certification #: 999407970  
Wyoming UST Certification #: via A2LA 2926.01

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### SAMPLE SUMMARY

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10500306001	VP-1R	Air	11/20/19 12:04	11/21/19 11:20
10500306002	VP-2	Air	11/20/19 12:08	11/21/19 11:20
10500306003	VP-3	Air	11/20/19 14:08	11/21/19 11:20
10500306004	VP-4	Air	11/20/19 14:11	11/21/19 11:20
10500306005	VP-5	Air	11/20/19 14:13	11/21/19 11:20

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### SAMPLE ANALYTE COUNT

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10500306001	VP-1R	TO-15	MJL	61	PASI-M
10500306002	VP-2	TO-15	NCK	61	PASI-M
10500306003	VP-3	TO-15	NCK	61	PASI-M
10500306004	VP-4	TO-15	NCK	61	PASI-M
10500306005	VP-5	TO-15	NCK	61	PASI-M

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Sample: VP-1R Lab ID: 10500306001 Collected: 11/20/19 12:04 Received: 11/21/19 11:20 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Acetone	119	ug/m3	4.2	2.1	1.75		11/26/19 18:03	67-64-1	
Benzene	18.1	ug/m3	0.57	0.27	1.75		11/26/19 18:03	71-43-2	
Benzyl chloride	<2.1	ug/m3	4.6	2.1	1.75		11/26/19 18:03	100-44-7	
Bromodichloromethane	<0.64	ug/m3	2.4	0.64	1.75		11/26/19 18:03	75-27-4	
Bromoform	<2.5	ug/m3	9.2	2.5	1.75		11/26/19 18:03	75-25-2	
Bromomethane	<0.40	ug/m3	1.4	0.40	1.75		11/26/19 18:03	74-83-9	
1,3-Butadiene	<0.22	ug/m3	0.79	0.22	1.75		11/26/19 18:03	106-99-0	
2-Butanone (MEK)	1.1J	ug/m3	5.2	0.65	1.75		11/26/19 18:03	78-93-3	
Carbon disulfide	<0.38	ug/m3	1.1	0.38	1.75		11/26/19 18:03	75-15-0	
Carbon tetrachloride	<0.75	ug/m3	2.2	0.75	1.75		11/26/19 18:03	56-23-5	
Chlorobenzene	<0.48	ug/m3	1.6	0.48	1.75		11/26/19 18:03	108-90-7	
Chloroethane	<0.46	ug/m3	0.94	0.46	1.75		11/26/19 18:03	75-00-3	
Chloroform	<0.34	ug/m3	0.87	0.34	1.75		11/26/19 18:03	67-66-3	
Chloromethane	<0.27	ug/m3	0.74	0.27	1.75		11/26/19 18:03	74-87-3	
Cyclohexane	12.3	ug/m3	3.1	0.62	1.75		11/26/19 18:03	110-82-7	
Dibromochloromethane	<1.3	ug/m3	3.0	1.3	1.75		11/26/19 18:03	124-48-1	
1,2-Dibromoethane (EDB)	<0.64	ug/m3	1.4	0.64	1.75		11/26/19 18:03	106-93-4	
1,2-Dichlorobenzene	<0.87	ug/m3	2.1	0.87	1.75		11/26/19 18:03	95-50-1	
1,3-Dichlorobenzene	2.7	ug/m3	2.1	1.0	1.75		11/26/19 18:03	541-73-1	
1,4-Dichlorobenzene	<1.8	ug/m3	5.4	1.8	1.75		11/26/19 18:03	106-46-7	
Dichlorodifluoromethane	13700	ug/m3	1.8	0.51	1.75		11/26/19 18:03	75-71-8	E
1,1-Dichloroethane	<0.39	ug/m3	1.4	0.39	1.75		11/26/19 18:03	75-34-3	
1,2-Dichloroethane	<0.26	ug/m3	0.72	0.26	1.75		11/26/19 18:03	107-06-2	
1,1-Dichloroethene	<0.48	ug/m3	1.4	0.48	1.75		11/26/19 18:03	75-35-4	
cis-1,2-Dichloroethene	<0.38	ug/m3	1.4	0.38	1.75		11/26/19 18:03	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/m3	1.4	0.50	1.75		11/26/19 18:03	156-60-5	
1,2-Dichloropropane	<0.40	ug/m3	1.6	0.40	1.75		11/26/19 18:03	78-87-5	
cis-1,3-Dichloropropene	<0.53	ug/m3	1.6	0.53	1.75		11/26/19 18:03	10061-01-5	
trans-1,3-Dichloropropene	<0.77	ug/m3	4.0	0.77	1.75		11/26/19 18:03	10061-02-6	
Dichlorotetrafluoroethane	<0.76	ug/m3	2.5	0.76	1.75		11/26/19 18:03	76-14-2	
Ethanol	28.2	ug/m3	3.4	1.4	1.75		11/26/19 18:03	64-17-5	
Ethyl acetate	0.81J	ug/m3	1.3	0.33	1.75		11/26/19 18:03	141-78-6	
Ethylbenzene	9.8	ug/m3	1.5	0.53	1.75		11/26/19 18:03	100-41-4	
4-Ethyltoluene	3.2J	ug/m3	4.4	1.0	1.75		11/26/19 18:03	622-96-8	
n-Heptane	24.1	ug/m3	1.5	0.66	1.75		11/26/19 18:03	142-82-5	
Hexachloro-1,3-butadiene	<3.4	ug/m3	9.5	3.4	1.75		11/26/19 18:03	87-68-3	
n-Hexane	5.5	ug/m3	1.3	0.54	1.75		11/26/19 18:03	110-54-3	
2-Hexanone	<1.3	ug/m3	7.3	1.3	1.75		11/26/19 18:03	591-78-6	
Methylene Chloride	7.2	ug/m3	6.2	2.1	1.75		11/26/19 18:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	1.2J	ug/m3	7.3	0.91	1.75		11/26/19 18:03	108-10-1	
Methyl-tert-butyl ether	<1.2	ug/m3	6.4	1.2	1.75		11/26/19 18:03	1634-04-4	
Naphthalene	<2.3	ug/m3	4.7	2.3	1.75		11/26/19 18:03	91-20-3	
2-Propanol	5.1	ug/m3	4.4	1.2	1.75		11/26/19 18:03	67-63-0	
Propylene	<0.24	ug/m3	0.61	0.24	1.75		11/26/19 18:03	115-07-1	
Styrene	16.7	ug/m3	1.5	0.60	1.75		11/26/19 18:03	100-42-5	
1,1,2,2-Tetrachloroethane	<0.54	ug/m3	1.2	0.54	1.75		11/26/19 18:03	79-34-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Sample: VP-1R Lab ID: 10500306001 Collected: 11/20/19 12:04 Received: 11/21/19 11:20 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
Tetrachloroethene	20.4	ug/m3	1.2	0.55	1.75		11/26/19 18:03	127-18-4	
Tetrahydrofuran	<0.46	ug/m3	1.0	0.46	1.75		11/26/19 18:03	109-99-9	
Toluene	38.4	ug/m3	1.3	0.61	1.75		11/26/19 18:03	108-88-3	
1,2,4-Trichlorobenzene	<6.5	ug/m3	13.2	6.5	1.75		11/26/19 18:03	120-82-1	
1,1,1-Trichloroethane	<0.54	ug/m3	1.9	0.54	1.75		11/26/19 18:03	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/m3	0.97	0.42	1.75		11/26/19 18:03	79-00-5	
Trichloroethene	5.3	ug/m3	0.96	0.44	1.75		11/26/19 18:03	79-01-6	
Trichlorofluoromethane	1.7J	ug/m3	2.0	0.64	1.75		11/26/19 18:03	75-69-4	
1,1,2-Trichlorotrifluoroethane	<0.99	ug/m3	2.7	0.99	1.75		11/26/19 18:03	76-13-1	
1,2,4-Trimethylbenzene	4.2	ug/m3	1.7	0.79	1.75		11/26/19 18:03	95-63-6	
1,3,5-Trimethylbenzene	3.1	ug/m3	1.7	0.70	1.75		11/26/19 18:03	108-67-8	
Vinyl acetate	<0.47	ug/m3	1.3	0.47	1.75		11/26/19 18:03	108-05-4	CL
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		11/26/19 18:03	75-01-4	
m&p-Xylene	33.9	ug/m3	3.1	1.2	1.75		11/26/19 18:03	179601-23-1	
o-Xylene	14.7	ug/m3	1.5	0.60	1.75		11/26/19 18:03	95-47-6	

Sample: VP-2 Lab ID: 10500306002 Collected: 11/20/19 12:08 Received: 11/21/19 11:20 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
Acetone	52.1	ug/m3	4.2	2.1	1.75		11/26/19 19:01	67-64-1	
Benzene	1.5	ug/m3	0.57	0.27	1.75		11/26/19 19:01	71-43-2	
Benzyl chloride	<2.1	ug/m3	4.6	2.1	1.75		11/26/19 19:01	100-44-7	
Bromodichloromethane	<0.64	ug/m3	2.4	0.64	1.75		11/26/19 19:01	75-27-4	
Bromoform	<2.5	ug/m3	9.2	2.5	1.75		11/26/19 19:01	75-25-2	
Bromomethane	<0.40	ug/m3	1.4	0.40	1.75		11/26/19 19:01	74-83-9	
1,3-Butadiene	<0.22	ug/m3	0.79	0.22	1.75		11/26/19 19:01	106-99-0	
2-Butanone (MEK)	3.1J	ug/m3	5.2	0.65	1.75		11/26/19 19:01	78-93-3	
Carbon disulfide	<0.38	ug/m3	1.1	0.38	1.75		11/26/19 19:01	75-15-0	
Carbon tetrachloride	<0.75	ug/m3	2.2	0.75	1.75		11/26/19 19:01	56-23-5	
Chlorobenzene	<0.48	ug/m3	1.6	0.48	1.75		11/26/19 19:01	108-90-7	
Chloroethane	<0.46	ug/m3	0.94	0.46	1.75		11/26/19 19:01	75-00-3	
Chloroform	<0.34	ug/m3	0.87	0.34	1.75		11/26/19 19:01	67-66-3	
Chloromethane	0.39J	ug/m3	0.74	0.27	1.75		11/26/19 19:01	74-87-3	
Cyclohexane	12.4	ug/m3	3.1	0.62	1.75		11/26/19 19:01	110-82-7	
Dibromochloromethane	<1.3	ug/m3	3.0	1.3	1.75		11/26/19 19:01	124-48-1	
1,2-Dibromoethane (EDB)	<0.64	ug/m3	1.4	0.64	1.75		11/26/19 19:01	106-93-4	
1,2-Dichlorobenzene	<0.87	ug/m3	2.1	0.87	1.75		11/26/19 19:01	95-50-1	
1,3-Dichlorobenzene	2.8	ug/m3	2.1	1.0	1.75		11/26/19 19:01	541-73-1	
1,4-Dichlorobenzene	<1.8	ug/m3	5.4	1.8	1.75		11/26/19 19:01	106-46-7	
Dichlorodifluoromethane	39.8	ug/m3	1.8	0.51	1.75		11/26/19 19:01	75-71-8	
1,1-Dichloroethane	<0.39	ug/m3	1.4	0.39	1.75		11/26/19 19:01	75-34-3	
1,2-Dichloroethane	<0.26	ug/m3	0.72	0.26	1.75		11/26/19 19:01	107-06-2	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Sample: VP-2 Lab ID: 10500306002 Collected: 11/20/19 12:08 Received: 11/21/19 11:20 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
1,1-Dichloroethene	<0.48	ug/m3	1.4	0.48	1.75		11/26/19 19:01	75-35-4	
cis-1,2-Dichloroethene	<0.38	ug/m3	1.4	0.38	1.75		11/26/19 19:01	156-59-2	
trans-1,2-Dichloroethene	<0.50	ug/m3	1.4	0.50	1.75		11/26/19 19:01	156-60-5	
1,2-Dichloropropane	<0.40	ug/m3	1.6	0.40	1.75		11/26/19 19:01	78-87-5	
cis-1,3-Dichloropropene	<0.53	ug/m3	1.6	0.53	1.75		11/26/19 19:01	10061-01-5	
trans-1,3-Dichloropropene	<0.77	ug/m3	4.0	0.77	1.75		11/26/19 19:01	10061-02-6	
Dichlorotetrafluoroethane	<0.76	ug/m3	2.5	0.76	1.75		11/26/19 19:01	76-14-2	
Ethanol	1660	ug/m3	3.4	1.4	1.75		11/26/19 19:01	64-17-5	E
Ethyl acetate	0.78J	ug/m3	1.3	0.33	1.75		11/26/19 19:01	141-78-6	
Ethylbenzene	10.3	ug/m3	1.5	0.53	1.75		11/26/19 19:01	100-41-4	
4-Ethyltoluene	3.6J	ug/m3	4.4	1.0	1.75		11/26/19 19:01	622-96-8	
n-Heptane	20.4	ug/m3	1.5	0.66	1.75		11/26/19 19:01	142-82-5	
Hexachloro-1,3-butadiene	<3.4	ug/m3	9.5	3.4	1.75		11/26/19 19:01	87-68-3	
n-Hexane	4.1	ug/m3	1.3	0.54	1.75		11/26/19 19:01	110-54-3	
2-Hexanone	<1.3	ug/m3	7.3	1.3	1.75		11/26/19 19:01	591-78-6	
Methylene Chloride	5.8J	ug/m3	6.2	2.1	1.75		11/26/19 19:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	1.5J	ug/m3	7.3	0.91	1.75		11/26/19 19:01	108-10-1	
Methyl-tert-butyl ether	<1.2	ug/m3	6.4	1.2	1.75		11/26/19 19:01	1634-04-4	
Naphthalene	4.0J	ug/m3	4.7	2.3	1.75		11/26/19 19:01	91-20-3	
2-Propanol	134	ug/m3	4.4	1.2	1.75		11/26/19 19:01	67-63-0	
Propylene	<0.24	ug/m3	0.61	0.24	1.75		11/26/19 19:01	115-07-1	
Styrene	21.2	ug/m3	1.5	0.60	1.75		11/26/19 19:01	100-42-5	
1,1,2,2-Tetrachloroethane	<0.54	ug/m3	1.2	0.54	1.75		11/26/19 19:01	79-34-5	
Tetrachloroethene	0.77J	ug/m3	1.2	0.55	1.75		11/26/19 19:01	127-18-4	
Tetrahydrofuran	<0.46	ug/m3	1.0	0.46	1.75		11/26/19 19:01	109-99-9	
Toluene	30.8	ug/m3	1.3	0.61	1.75		11/26/19 19:01	108-88-3	
1,2,4-Trichlorobenzene	<6.5	ug/m3	13.2	6.5	1.75		11/26/19 19:01	120-82-1	
1,1,1-Trichloroethane	<0.54	ug/m3	1.9	0.54	1.75		11/26/19 19:01	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/m3	0.97	0.42	1.75		11/26/19 19:01	79-00-5	
Trichloroethene	<0.44	ug/m3	0.96	0.44	1.75		11/26/19 19:01	79-01-6	
Trichlorofluoromethane	1.2J	ug/m3	2.0	0.64	1.75		11/26/19 19:01	75-69-4	
1,1,2-Trichlorotrifluoroethane	<0.99	ug/m3	2.7	0.99	1.75		11/26/19 19:01	76-13-1	
1,2,4-Trimethylbenzene	5.1	ug/m3	1.7	0.79	1.75		11/26/19 19:01	95-63-6	
1,3,5-Trimethylbenzene	3.4	ug/m3	1.7	0.70	1.75		11/26/19 19:01	108-67-8	
Vinyl acetate	<0.47	ug/m3	1.3	0.47	1.75		11/26/19 19:01	108-05-4	CL
Vinyl chloride	<0.22	ug/m3	0.46	0.22	1.75		11/26/19 19:01	75-01-4	
m&p-Xylene	40.3	ug/m3	3.1	1.2	1.75		11/26/19 19:01	179601-23-1	
o-Xylene	17.5	ug/m3	1.5	0.60	1.75		11/26/19 19:01	95-47-6	

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## ANALYTICAL RESULTS

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Sample: VP-3 Lab ID: 10500306003 Collected: 11/20/19 14:08 Received: 11/21/19 11:20 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>		Analytical Method: TO-15							
Acetone	25.0	ug/m3	4.4	2.2	1.83		11/26/19 19:29	67-64-1	
Benzene	1.3	ug/m3	0.59	0.28	1.83		11/26/19 19:29	71-43-2	
Benzyl chloride	<2.2	ug/m3	4.8	2.2	1.83		11/26/19 19:29	100-44-7	
Bromodichloromethane	<0.67	ug/m3	2.5	0.67	1.83		11/26/19 19:29	75-27-4	
Bromoform	<2.6	ug/m3	9.6	2.6	1.83		11/26/19 19:29	75-25-2	
Bromomethane	<0.42	ug/m3	1.4	0.42	1.83		11/26/19 19:29	74-83-9	
1,3-Butadiene	<0.23	ug/m3	0.82	0.23	1.83		11/26/19 19:29	106-99-0	
2-Butanone (MEK)	2.8J	ug/m3	5.5	0.68	1.83		11/26/19 19:29	78-93-3	
Carbon disulfide	<0.40	ug/m3	1.2	0.40	1.83		11/26/19 19:29	75-15-0	
Carbon tetrachloride	<0.79	ug/m3	2.3	0.79	1.83		11/26/19 19:29	56-23-5	
Chlorobenzene	<0.50	ug/m3	1.7	0.50	1.83		11/26/19 19:29	108-90-7	
Chloroethane	<0.48	ug/m3	0.98	0.48	1.83		11/26/19 19:29	75-00-3	
Chloroform	<0.36	ug/m3	0.91	0.36	1.83		11/26/19 19:29	67-66-3	
Chloromethane	<0.29	ug/m3	0.77	0.29	1.83		11/26/19 19:29	74-87-3	
Cyclohexane	11.6	ug/m3	3.2	0.65	1.83		11/26/19 19:29	110-82-7	
Dibromochloromethane	<1.3	ug/m3	3.2	1.3	1.83		11/26/19 19:29	124-48-1	
1,2-Dibromoethane (EDB)	<0.67	ug/m3	1.4	0.67	1.83		11/26/19 19:29	106-93-4	
1,2-Dichlorobenzene	<0.91	ug/m3	2.2	0.91	1.83		11/26/19 19:29	95-50-1	
1,3-Dichlorobenzene	3.5	ug/m3	2.2	1.1	1.83		11/26/19 19:29	541-73-1	
1,4-Dichlorobenzene	<1.8	ug/m3	5.6	1.8	1.83		11/26/19 19:29	106-46-7	
Dichlorodifluoromethane	210	ug/m3	1.8	0.54	1.83		11/26/19 19:29	75-71-8	
1,1-Dichloroethane	<0.41	ug/m3	1.5	0.41	1.83		11/26/19 19:29	75-34-3	
1,2-Dichloroethane	<0.27	ug/m3	0.75	0.27	1.83		11/26/19 19:29	107-06-2	
1,1-Dichloroethene	<0.50	ug/m3	1.5	0.50	1.83		11/26/19 19:29	75-35-4	
cis-1,2-Dichloroethene	<0.40	ug/m3	1.5	0.40	1.83		11/26/19 19:29	156-59-2	
trans-1,2-Dichloroethene	<0.52	ug/m3	1.5	0.52	1.83		11/26/19 19:29	156-60-5	
1,2-Dichloropropane	<0.42	ug/m3	1.7	0.42	1.83		11/26/19 19:29	78-87-5	
cis-1,3-Dichloropropene	<0.56	ug/m3	1.7	0.56	1.83		11/26/19 19:29	10061-01-5	
trans-1,3-Dichloropropene	<0.81	ug/m3	4.2	0.81	1.83		11/26/19 19:29	10061-02-6	
Dichlorotetrafluoroethane	<0.80	ug/m3	2.6	0.80	1.83		11/26/19 19:29	76-14-2	
Ethanol	88.7	ug/m3	3.5	1.5	1.83		11/26/19 19:29	64-17-5	
Ethyl acetate	<0.35	ug/m3	1.3	0.35	1.83		11/26/19 19:29	141-78-6	
Ethylbenzene	12.6	ug/m3	1.6	0.56	1.83		11/26/19 19:29	100-41-4	
4-Ethyltoluene	3.8J	ug/m3	4.6	1.0	1.83		11/26/19 19:29	622-96-8	
n-Heptane	21.6	ug/m3	1.5	0.70	1.83		11/26/19 19:29	142-82-5	
Hexachloro-1,3-butadiene	<3.6	ug/m3	9.9	3.6	1.83		11/26/19 19:29	87-68-3	
n-Hexane	2.9	ug/m3	1.3	0.57	1.83		11/26/19 19:29	110-54-3	
2-Hexanone	<1.4	ug/m3	7.6	1.4	1.83		11/26/19 19:29	591-78-6	
Methylene Chloride	4.0J	ug/m3	6.5	2.2	1.83		11/26/19 19:29	75-09-2	
4-Methyl-2-pentanone (MIBK)	1.6J	ug/m3	7.6	0.95	1.83		11/26/19 19:29	108-10-1	
Methyl-tert-butyl ether	<1.2	ug/m3	6.7	1.2	1.83		11/26/19 19:29	1634-04-4	
Naphthalene	4.1J	ug/m3	4.9	2.4	1.83		11/26/19 19:29	91-20-3	
2-Propanol	6.9	ug/m3	4.6	1.3	1.83		11/26/19 19:29	67-63-0	
Propylene	<0.26	ug/m3	0.64	0.26	1.83		11/26/19 19:29	115-07-1	
Styrene	29.1	ug/m3	1.6	0.63	1.83		11/26/19 19:29	100-42-5	
1,1,2,2-Tetrachloroethane	<0.57	ug/m3	1.3	0.57	1.83		11/26/19 19:29	79-34-5	

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### ANALYTICAL RESULTS

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Sample: VP-3 Lab ID: 10500306003 Collected: 11/20/19 14:08 Received: 11/21/19 11:20 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
Tetrachloroethene	0.88J	ug/m3	1.3	0.57	1.83		11/26/19 19:29	127-18-4	
Tetrahydrofuran	<0.48	ug/m3	1.1	0.48	1.83		11/26/19 19:29	109-99-9	
Toluene	34.9	ug/m3	1.4	0.64	1.83		11/26/19 19:29	108-88-3	
1,2,4-Trichlorobenzene	<6.8	ug/m3	13.8	6.8	1.83		11/26/19 19:29	120-82-1	
1,1,1-Trichloroethane	<0.57	ug/m3	2.0	0.57	1.83		11/26/19 19:29	71-55-6	
1,1,2-Trichloroethane	<0.44	ug/m3	1.0	0.44	1.83		11/26/19 19:29	79-00-5	
Trichloroethene	<0.46	ug/m3	1.0	0.46	1.83		11/26/19 19:29	79-01-6	
Trichlorofluoromethane	1.3J	ug/m3	2.1	0.67	1.83		11/26/19 19:29	75-69-4	
1,1,2-Trichlorotrifluoroethane	<1.0	ug/m3	2.9	1.0	1.83		11/26/19 19:29	76-13-1	
1,2,4-Trimethylbenzene	6.7	ug/m3	1.8	0.83	1.83		11/26/19 19:29	95-63-6	
1,3,5-Trimethylbenzene	4.1	ug/m3	1.8	0.73	1.83		11/26/19 19:29	108-67-8	
Vinyl acetate	<0.49	ug/m3	1.3	0.49	1.83		11/26/19 19:29	108-05-4	CL
Vinyl chloride	<0.23	ug/m3	0.48	0.23	1.83		11/26/19 19:29	75-01-4	
m&p-Xylene	51.8	ug/m3	3.2	1.3	1.83		11/26/19 19:29	179601-23-1	
o-Xylene	22.8	ug/m3	1.6	0.63	1.83		11/26/19 19:29	95-47-6	

Sample: VP-4 Lab ID: 10500306004 Collected: 11/20/19 14:11 Received: 11/21/19 11:20 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
Acetone	53.8	ug/m3	4.3	2.2	1.79		11/26/19 19:58	67-64-1	
Benzene	2.0	ug/m3	0.58	0.27	1.79		11/26/19 19:58	71-43-2	
Benzyl chloride	<2.1	ug/m3	4.7	2.1	1.79		11/26/19 19:58	100-44-7	
Bromodichloromethane	<0.66	ug/m3	2.4	0.66	1.79		11/26/19 19:58	75-27-4	
Bromoform	<2.5	ug/m3	9.4	2.5	1.79		11/26/19 19:58	75-25-2	
Bromomethane	<0.41	ug/m3	1.4	0.41	1.79		11/26/19 19:58	74-83-9	
1,3-Butadiene	<0.23	ug/m3	0.81	0.23	1.79		11/26/19 19:58	106-99-0	
2-Butanone (MEK)	2.4J	ug/m3	5.4	0.66	1.79		11/26/19 19:58	78-93-3	
Carbon disulfide	<0.39	ug/m3	1.1	0.39	1.79		11/26/19 19:58	75-15-0	
Carbon tetrachloride	<0.77	ug/m3	2.3	0.77	1.79		11/26/19 19:58	56-23-5	
Chlorobenzene	<0.49	ug/m3	1.7	0.49	1.79		11/26/19 19:58	108-90-7	
Chloroethane	<0.47	ug/m3	0.96	0.47	1.79		11/26/19 19:58	75-00-3	
Chloroform	<0.35	ug/m3	0.89	0.35	1.79		11/26/19 19:58	67-66-3	
Chloromethane	<0.28	ug/m3	0.75	0.28	1.79		11/26/19 19:58	74-87-3	
Cyclohexane	15.2	ug/m3	3.1	0.63	1.79		11/26/19 19:58	110-82-7	
Dibromochloromethane	<1.3	ug/m3	3.1	1.3	1.79		11/26/19 19:58	124-48-1	
1,2-Dibromoethane (EDB)	<0.66	ug/m3	1.4	0.66	1.79		11/26/19 19:58	106-93-4	
1,2-Dichlorobenzene	<0.89	ug/m3	2.2	0.89	1.79		11/26/19 19:58	95-50-1	
1,3-Dichlorobenzene	4.0	ug/m3	2.2	1.0	1.79		11/26/19 19:58	541-73-1	
1,4-Dichlorobenzene	<1.8	ug/m3	5.5	1.8	1.79		11/26/19 19:58	106-46-7	
Dichlorodifluoromethane	57.7	ug/m3	1.8	0.52	1.79		11/26/19 19:58	75-71-8	
1,1-Dichloroethane	<0.40	ug/m3	1.5	0.40	1.79		11/26/19 19:58	75-34-3	
1,2-Dichloroethane	<0.27	ug/m3	0.74	0.27	1.79		11/26/19 19:58	107-06-2	

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### ANALYTICAL RESULTS

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Sample: VP-4 Lab ID: 10500306004 Collected: 11/20/19 14:11 Received: 11/21/19 11:20 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b> Analytical Method: TO-15									
1,1-Dichloroethene	<0.49	ug/m3	1.4	0.49	1.79		11/26/19 19:58	75-35-4	
cis-1,2-Dichloroethene	<0.39	ug/m3	1.4	0.39	1.79		11/26/19 19:58	156-59-2	
trans-1,2-Dichloroethene	<0.51	ug/m3	1.4	0.51	1.79		11/26/19 19:58	156-60-5	
1,2-Dichloropropane	<0.41	ug/m3	1.7	0.41	1.79		11/26/19 19:58	78-87-5	
cis-1,3-Dichloropropene	<0.54	ug/m3	1.7	0.54	1.79		11/26/19 19:58	10061-01-5	
trans-1,3-Dichloropropene	<0.79	ug/m3	4.1	0.79	1.79		11/26/19 19:58	10061-02-6	
Dichlorotetrafluoroethane	<0.78	ug/m3	2.5	0.78	1.79		11/26/19 19:58	76-14-2	
Ethanol	247	ug/m3	3.4	1.5	1.79		11/26/19 19:58	64-17-5	
Ethyl acetate	<0.34	ug/m3	1.3	0.34	1.79		11/26/19 19:58	141-78-6	
Ethylbenzene	13.3	ug/m3	1.6	0.55	1.79		11/26/19 19:58	100-41-4	
4-Ethyltoluene	3.7J	ug/m3	4.5	1.0	1.79		11/26/19 19:58	622-96-8	
n-Heptane	24.3	ug/m3	1.5	0.68	1.79		11/26/19 19:58	142-82-5	
Hexachloro-1,3-butadiene	<3.5	ug/m3	9.7	3.5	1.79		11/26/19 19:58	87-68-3	
n-Hexane	4.3	ug/m3	1.3	0.56	1.79		11/26/19 19:58	110-54-3	
2-Hexanone	5.1J	ug/m3	7.4	1.3	1.79		11/26/19 19:58	591-78-6	
Methylene Chloride	8.6	ug/m3	6.3	2.2	1.79		11/26/19 19:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	2.0J	ug/m3	7.4	0.93	1.79		11/26/19 19:58	108-10-1	
Methyl-tert-butyl ether	<1.2	ug/m3	6.6	1.2	1.79		11/26/19 19:58	1634-04-4	
Naphthalene	4.1J	ug/m3	4.8	2.3	1.79		11/26/19 19:58	91-20-3	
2-Propanol	14.2	ug/m3	4.5	1.2	1.79		11/26/19 19:58	67-63-0	
Propylene	<0.25	ug/m3	0.63	0.25	1.79		11/26/19 19:58	115-07-1	
Styrene	29.8	ug/m3	1.6	0.62	1.79		11/26/19 19:58	100-42-5	
1,1,2,2-Tetrachloroethane	<0.55	ug/m3	1.2	0.55	1.79		11/26/19 19:58	79-34-5	
Tetrachloroethene	0.91J	ug/m3	1.2	0.56	1.79		11/26/19 19:58	127-18-4	
Tetrahydrofuran	<0.47	ug/m3	1.1	0.47	1.79		11/26/19 19:58	109-99-9	
Toluene	39.2	ug/m3	1.4	0.63	1.79		11/26/19 19:58	108-88-3	
1,2,4-Trichlorobenzene	<6.7	ug/m3	13.5	6.7	1.79		11/26/19 19:58	120-82-1	
1,1,1-Trichloroethane	<0.55	ug/m3	2.0	0.55	1.79		11/26/19 19:58	71-55-6	
1,1,2-Trichloroethane	<0.43	ug/m3	0.99	0.43	1.79		11/26/19 19:58	79-00-5	
Trichloroethene	<0.45	ug/m3	0.98	0.45	1.79		11/26/19 19:58	79-01-6	
Trichlorofluoromethane	1.2J	ug/m3	2.0	0.66	1.79		11/26/19 19:58	75-69-4	
1,1,2-Trichlorotrifluoroethane	<1.0	ug/m3	2.8	1.0	1.79		11/26/19 19:58	76-13-1	
1,2,4-Trimethylbenzene	6.7	ug/m3	1.8	0.81	1.79		11/26/19 19:58	95-63-6	
1,3,5-Trimethylbenzene	4.0	ug/m3	1.8	0.71	1.79		11/26/19 19:58	108-67-8	
Vinyl acetate	<0.48	ug/m3	1.3	0.48	1.79		11/26/19 19:58	108-05-4	CL
Vinyl chloride	<0.23	ug/m3	0.47	0.23	1.79		11/26/19 19:58	75-01-4	
m&p-Xylene	53.6	ug/m3	3.2	1.3	1.79		11/26/19 19:58	179601-23-1	
o-Xylene	23.4	ug/m3	1.6	0.62	1.79		11/26/19 19:58	95-47-6	

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### ANALYTICAL RESULTS

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Sample: VP-5 Lab ID: 10500306005 Collected: 11/20/19 14:13 Received: 11/21/19 11:20 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR Analytical Method: TO-15									
Acetone	38.9	ug/m3	4.4	2.2	1.83		11/26/19 20:27	67-64-1	
Benzene	2.5	ug/m3	0.59	0.28	1.83		11/26/19 20:27	71-43-2	
Benzyl chloride	<2.2	ug/m3	4.8	2.2	1.83		11/26/19 20:27	100-44-7	
Bromodichloromethane	<0.67	ug/m3	2.5	0.67	1.83		11/26/19 20:27	75-27-4	
Bromoform	<2.6	ug/m3	9.6	2.6	1.83		11/26/19 20:27	75-25-2	
Bromomethane	<0.42	ug/m3	1.4	0.42	1.83		11/26/19 20:27	74-83-9	
1,3-Butadiene	<0.23	ug/m3	0.82	0.23	1.83		11/26/19 20:27	106-99-0	
2-Butanone (MEK)	2.4J	ug/m3	5.5	0.68	1.83		11/26/19 20:27	78-93-3	
Carbon disulfide	<0.40	ug/m3	1.2	0.40	1.83		11/26/19 20:27	75-15-0	
Carbon tetrachloride	<0.79	ug/m3	2.3	0.79	1.83		11/26/19 20:27	56-23-5	
Chlorobenzene	0.62J	ug/m3	1.7	0.50	1.83		11/26/19 20:27	108-90-7	
Chloroethane	<0.48	ug/m3	0.98	0.48	1.83		11/26/19 20:27	75-00-3	
Chloroform	<0.36	ug/m3	0.91	0.36	1.83		11/26/19 20:27	67-66-3	
Chloromethane	<0.29	ug/m3	0.77	0.29	1.83		11/26/19 20:27	74-87-3	
Cyclohexane	12.2	ug/m3	3.2	0.65	1.83		11/26/19 20:27	110-82-7	
Dibromochloromethane	<1.3	ug/m3	3.2	1.3	1.83		11/26/19 20:27	124-48-1	
1,2-Dibromoethane (EDB)	<0.67	ug/m3	1.4	0.67	1.83		11/26/19 20:27	106-93-4	
1,2-Dichlorobenzene	2.4	ug/m3	2.2	0.91	1.83		11/26/19 20:27	95-50-1	
1,3-Dichlorobenzene	3.4	ug/m3	2.2	1.1	1.83		11/26/19 20:27	541-73-1	
1,4-Dichlorobenzene	5.7	ug/m3	5.6	1.8	1.83		11/26/19 20:27	106-46-7	
Dichlorodifluoromethane	3170	ug/m3	1.8	0.54	1.83		11/26/19 20:27	75-71-8	E
1,1-Dichloroethane	<0.41	ug/m3	1.5	0.41	1.83		11/26/19 20:27	75-34-3	
1,2-Dichloroethane	<0.27	ug/m3	0.75	0.27	1.83		11/26/19 20:27	107-06-2	
1,1-Dichloroethene	<0.50	ug/m3	1.5	0.50	1.83		11/26/19 20:27	75-35-4	
cis-1,2-Dichloroethene	<0.40	ug/m3	1.5	0.40	1.83		11/26/19 20:27	156-59-2	
trans-1,2-Dichloroethene	<0.52	ug/m3	1.5	0.52	1.83		11/26/19 20:27	156-60-5	
1,2-Dichloropropane	<0.42	ug/m3	1.7	0.42	1.83		11/26/19 20:27	78-87-5	
cis-1,3-Dichloropropene	<0.56	ug/m3	1.7	0.56	1.83		11/26/19 20:27	10061-01-5	
trans-1,3-Dichloropropene	<0.81	ug/m3	4.2	0.81	1.83		11/26/19 20:27	10061-02-6	
Dichlorotetrafluoroethane	<0.80	ug/m3	2.6	0.80	1.83		11/26/19 20:27	76-14-2	
Ethanol	198	ug/m3	3.5	1.5	1.83		11/26/19 20:27	64-17-5	
Ethyl acetate	0.88J	ug/m3	1.3	0.35	1.83		11/26/19 20:27	141-78-6	
Ethylbenzene	12.2	ug/m3	1.6	0.56	1.83		11/26/19 20:27	100-41-4	
4-Ethyltoluene	3.6J	ug/m3	4.6	1.0	1.83		11/26/19 20:27	622-96-8	
n-Heptane	22.7	ug/m3	1.5	0.70	1.83		11/26/19 20:27	142-82-5	
Hexachloro-1,3-butadiene	<3.6	ug/m3	9.9	3.6	1.83		11/26/19 20:27	87-68-3	
n-Hexane	5.6	ug/m3	1.3	0.57	1.83		11/26/19 20:27	110-54-3	
2-Hexanone	<1.4	ug/m3	7.6	1.4	1.83		11/26/19 20:27	591-78-6	
Methylene Chloride	11.3	ug/m3	6.5	2.2	1.83		11/26/19 20:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	<0.95	ug/m3	7.6	0.95	1.83		11/26/19 20:27	108-10-1	
Methyl-tert-butyl ether	<1.2	ug/m3	6.7	1.2	1.83		11/26/19 20:27	1634-04-4	
Naphthalene	4.1J	ug/m3	4.9	2.4	1.83		11/26/19 20:27	91-20-3	
2-Propanol	8.7	ug/m3	4.6	1.3	1.83		11/26/19 20:27	67-63-0	
Propylene	<0.26	ug/m3	0.64	0.26	1.83		11/26/19 20:27	115-07-1	
Styrene	25.6	ug/m3	1.6	0.63	1.83		11/26/19 20:27	100-42-5	
1,1,2,2-Tetrachloroethane	<0.57	ug/m3	1.3	0.57	1.83		11/26/19 20:27	79-34-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Sample: VP-5 Lab ID: 10500306005 Collected: 11/20/19 14:13 Received: 11/21/19 11:20 Matrix: Air

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>TO15 MSV AIR</b>									
Analytical Method: TO-15									
Tetrachloroethene	17.2	ug/m3	1.3	0.57	1.83		11/26/19 20:27	127-18-4	
Tetrahydrofuran	<0.48	ug/m3	1.1	0.48	1.83		11/26/19 20:27	109-99-9	
Toluene	37.1	ug/m3	1.4	0.64	1.83		11/26/19 20:27	108-88-3	
1,2,4-Trichlorobenzene	<6.8	ug/m3	13.8	6.8	1.83		11/26/19 20:27	120-82-1	
1,1,1-Trichloroethane	<0.57	ug/m3	2.0	0.57	1.83		11/26/19 20:27	71-55-6	
1,1,2-Trichloroethane	<0.44	ug/m3	1.0	0.44	1.83		11/26/19 20:27	79-00-5	
Trichloroethene	<0.46	ug/m3	1.0	0.46	1.83		11/26/19 20:27	79-01-6	
Trichlorofluoromethane	1.5J	ug/m3	2.1	0.67	1.83		11/26/19 20:27	75-69-4	
1,1,2-Trichlorotrifluoroethane	<1.0	ug/m3	2.9	1.0	1.83		11/26/19 20:27	76-13-1	
1,2,4-Trimethylbenzene	6.0	ug/m3	1.8	0.83	1.83		11/26/19 20:27	95-63-6	
1,3,5-Trimethylbenzene	3.5	ug/m3	1.8	0.73	1.83		11/26/19 20:27	108-67-8	
Vinyl acetate	<0.49	ug/m3	1.3	0.49	1.83		11/26/19 20:27	108-05-4	CL
Vinyl chloride	<0.23	ug/m3	0.48	0.23	1.83		11/26/19 20:27	75-01-4	
m&p-Xylene	47.9	ug/m3	3.2	1.3	1.83		11/26/19 20:27	179601-23-1	
o-Xylene	21.0	ug/m3	1.6	0.63	1.83		11/26/19 20:27	95-47-6	

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### QUALITY CONTROL DATA

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

QC Batch: 648148 Analysis Method: TO-15  
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level  
Associated Lab Samples: 10500306001, 10500306002, 10500306003, 10500306004, 10500306005

METHOD BLANK: 3486872 Matrix: Air  
Associated Lab Samples: 10500306001, 10500306002, 10500306003, 10500306004, 10500306005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	<0.15	0.56	11/26/19 13:09	
1,1,2,2-Tetrachloroethane	ug/m3	<0.15	0.35	11/26/19 13:09	
1,1,2-Trichloroethane	ug/m3	<0.12	0.28	11/26/19 13:09	
1,1,2-Trichlorotrifluoroethane	ug/m3	<0.28	0.78	11/26/19 13:09	
1,1-Dichloroethane	ug/m3	<0.11	0.41	11/26/19 13:09	
1,1-Dichloroethene	ug/m3	<0.14	0.40	11/26/19 13:09	
1,2,4-Trichlorobenzene	ug/m3	<1.9	3.8	11/26/19 13:09	
1,2,4-Trimethylbenzene	ug/m3	<0.23	0.50	11/26/19 13:09	
1,2-Dibromoethane (EDB)	ug/m3	<0.18	0.39	11/26/19 13:09	
1,2-Dichlorobenzene	ug/m3	<0.25	0.61	11/26/19 13:09	
1,2-Dichloroethane	ug/m3	<0.075	0.21	11/26/19 13:09	
1,2-Dichloropropane	ug/m3	<0.12	0.47	11/26/19 13:09	
1,3,5-Trimethylbenzene	ug/m3	<0.20	0.50	11/26/19 13:09	
1,3-Butadiene	ug/m3	<0.064	0.22	11/26/19 13:09	
1,3-Dichlorobenzene	ug/m3	<0.29	0.61	11/26/19 13:09	
1,4-Dichlorobenzene	ug/m3	<0.50	1.5	11/26/19 13:09	
2-Butanone (MEK)	ug/m3	<0.18	1.5	11/26/19 13:09	
2-Hexanone	ug/m3	<0.37	2.1	11/26/19 13:09	
2-Propanol	ug/m3	<0.35	1.2	11/26/19 13:09	
4-Ethyltoluene	ug/m3	<0.28	1.2	11/26/19 13:09	
4-Methyl-2-pentanone (MIBK)	ug/m3	<0.26	2.1	11/26/19 13:09	
Acetone	ug/m3	<0.60	1.2	11/26/19 13:09	
Benzene	ug/m3	<0.076	0.16	11/26/19 13:09	
Benzyl chloride	ug/m3	<0.60	1.3	11/26/19 13:09	
Bromodichloromethane	ug/m3	<0.18	0.68	11/26/19 13:09	
Bromoform	ug/m3	<0.71	2.6	11/26/19 13:09	
Bromomethane	ug/m3	<0.11	0.39	11/26/19 13:09	
Carbon disulfide	ug/m3	<0.11	0.32	11/26/19 13:09	
Carbon tetrachloride	ug/m3	<0.21	0.64	11/26/19 13:09	
Chlorobenzene	ug/m3	<0.14	0.47	11/26/19 13:09	
Chloroethane	ug/m3	<0.13	0.27	11/26/19 13:09	
Chloroform	ug/m3	<0.098	0.25	11/26/19 13:09	
Chloromethane	ug/m3	<0.078	0.21	11/26/19 13:09	
cis-1,2-Dichloroethene	ug/m3	<0.11	0.40	11/26/19 13:09	
cis-1,3-Dichloropropene	ug/m3	<0.15	0.46	11/26/19 13:09	
Cyclohexane	ug/m3	<0.18	0.88	11/26/19 13:09	
Dibromochloromethane	ug/m3	<0.36	0.86	11/26/19 13:09	
Dichlorodifluoromethane	ug/m3	<0.15	0.50	11/26/19 13:09	
Dichlorotetrafluoroethane	ug/m3	<0.22	0.71	11/26/19 13:09	
Ethanol	ug/m3	<0.41	0.96	11/26/19 13:09	
Ethyl acetate	ug/m3	<0.095	0.37	11/26/19 13:09	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

METHOD BLANK: 3486872

Matrix: Air

Associated Lab Samples: 10500306001, 10500306002, 10500306003, 10500306004, 10500306005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/m3	<0.15	0.44	11/26/19 13:09	
Hexachloro-1,3-butadiene	ug/m3	<0.98	2.7	11/26/19 13:09	
m&p-Xylene	ug/m3	<0.35	0.88	11/26/19 13:09	
Methyl-tert-butyl ether	ug/m3	<0.33	1.8	11/26/19 13:09	
Methylene Chloride	ug/m3	<0.60	1.8	11/26/19 13:09	
n-Heptane	ug/m3	<0.19	0.42	11/26/19 13:09	
n-Hexane	ug/m3	<0.16	0.36	11/26/19 13:09	
Naphthalene	ug/m3	<0.66	1.3	11/26/19 13:09	
o-Xylene	ug/m3	<0.17	0.44	11/26/19 13:09	
Propylene	ug/m3	<0.070	0.18	11/26/19 13:09	
Styrene	ug/m3	<0.17	0.43	11/26/19 13:09	
Tetrachloroethene	ug/m3	<0.16	0.34	11/26/19 13:09	
Tetrahydrofuran	ug/m3	<0.13	0.30	11/26/19 13:09	
Toluene	ug/m3	<0.18	0.38	11/26/19 13:09	
trans-1,2-Dichloroethene	ug/m3	<0.14	0.40	11/26/19 13:09	
trans-1,3-Dichloropropene	ug/m3	<0.22	1.2	11/26/19 13:09	
Trichloroethene	ug/m3	<0.13	0.27	11/26/19 13:09	
Trichlorofluoromethane	ug/m3	<0.18	0.57	11/26/19 13:09	
Vinyl acetate	ug/m3	<0.14	0.36	11/26/19 13:09	CL
Vinyl chloride	ug/m3	<0.063	0.13	11/26/19 13:09	

LABORATORY CONTROL SAMPLE: 3486873

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	57.7	104	70-130	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	74.6	107	70-132	
1,1,2-Trichloroethane	ug/m3	55.5	55.7	100	70-130	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	77.7	100	70-130	
1,1-Dichloroethane	ug/m3	41.1	40.7	99	70-130	
1,1-Dichloroethene	ug/m3	40.3	41.2	102	70-130	
1,2,4-Trichlorobenzene	ug/m3	75.4	71.1	94	56-130	
1,2,4-Trimethylbenzene	ug/m3	50	49.9	100	70-134	
1,2-Dibromoethane (EDB)	ug/m3	78.1	79.5	102	70-130	
1,2-Dichlorobenzene	ug/m3	61.1	62.4	102	70-132	
1,2-Dichloroethane	ug/m3	41.1	42.1	102	70-130	
1,2-Dichloropropane	ug/m3	47	50.7	108	70-130	
1,3,5-Trimethylbenzene	ug/m3	50	50.6	101	70-132	
1,3-Butadiene	ug/m3	22.5	22.5	100	65-130	
1,3-Dichlorobenzene	ug/m3	61.1	61.8	101	70-137	
1,4-Dichlorobenzene	ug/m3	61.1	58.3	95	70-134	
2-Butanone (MEK)	ug/m3	30	29.7	99	70-130	
2-Hexanone	ug/m3	41.6	42.0	101	70-135	
2-Propanol	ug/m3	125	138	110	68-130	
4-Ethyltoluene	ug/m3	50	49.6	99	70-138	

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### QUALITY CONTROL DATA

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

LABORATORY CONTROL SAMPLE: 3486873

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/m3	41.6	46.8	112	70-131	
Acetone	ug/m3	121	113	94	67-130	
Benzene	ug/m3	32.5	35.4	109	70-130	
Benzyl chloride	ug/m3	52.6	50.0	95	70-130	
Bromodichloromethane	ug/m3	68.1	71.7	105	70-130	
Bromoform	ug/m3	105	83.8	80	70-132	
Bromomethane	ug/m3	39.5	40.2	102	69-130	
Carbon disulfide	ug/m3	31.6	34.0	108	56-137	
Carbon tetrachloride	ug/m3	64	65.4	102	66-131	
Chlorobenzene	ug/m3	46.8	51.6	110	70-130	
Chloroethane	ug/m3	26.8	27.1	101	70-130	
Chloroform	ug/m3	49.6	49.9	101	70-130	
Chloromethane	ug/m3	21	19.8	94	66-130	
cis-1,2-Dichloroethene	ug/m3	40.3	44.9	111	70-130	
cis-1,3-Dichloropropene	ug/m3	46.1	46.3	100	70-133	
Cyclohexane	ug/m3	35	41.8	119	68-132	
Dibromochloromethane	ug/m3	86.6	94.6	109	70-130	
Dichlorodifluoromethane	ug/m3	50.3	45.7	91	70-130	
Dichlorotetrafluoroethane	ug/m3	71	68.9	97	70-130	
Ethanol	ug/m3	95.8	96.7	101	68-133	
Ethyl acetate	ug/m3	36.6	38.4	105	69-130	
Ethylbenzene	ug/m3	44.1	45.4	103	67-131	
Hexachloro-1,3-butadiene	ug/m3	108	106	98	66-137	
m&p-Xylene	ug/m3	88.3	89.0	101	70-132	
Methyl-tert-butyl ether	ug/m3	36.6	43.2	118	70-130	
Methylene Chloride	ug/m3	177	168	95	65-130	
n-Heptane	ug/m3	41.7	47.5	114	65-130	
n-Hexane	ug/m3	35.8	40.0	112	66-130	
Naphthalene	ug/m3	53.3	42.6	80	56-130	
o-Xylene	ug/m3	44.1	44.5	101	70-130	
Propylene	ug/m3	17.5	17.7	101	67-130	
Styrene	ug/m3	43.3	43.8	101	69-136	
Tetrachloroethene	ug/m3	68.9	79.3	115	70-130	
Tetrahydrofuran	ug/m3	30	29.7	99	68-131	
Toluene	ug/m3	38.3	47.8	125	70-130	
trans-1,2-Dichloroethene	ug/m3	40.3	41.6	103	70-130	
trans-1,3-Dichloropropene	ug/m3	46.1	45.9	99	70-134	
Trichloroethene	ug/m3	54.6	59.2	108	70-130	
Trichlorofluoromethane	ug/m3	57.1	52.6	92	65-130	
Vinyl acetate	ug/m3	35.8	24.3	68	61-133 CL	
Vinyl chloride	ug/m3	26	27.4	105	70-130	

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## QUALIFIERS

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

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### 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 LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

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 at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

### ANALYTE QUALIFIERS

CL The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 52197210 Lake County Square-Revised Report

Pace Project No.: 10500306

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10500306001	VP-1R	TO-15	648148		
10500306002	VP-2	TO-15	648148		
10500306003	VP-3	TO-15	648148		
10500306004	VP-4	TO-15	648148		
10500306005	VP-5	TO-15	648148		

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**AIR: CHAIN-OF-CUSTODY**  
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant

WO#: 10500306



48069

Page: / of 1

<b>Section A</b> Required Client Information:	<b>Section B</b> Required Project Information:	<b>Section C</b> Invoice Information:	<b>Program</b>
Company: <u>Terracon Consultants</u>	Report To: <u>Paul Lenaker</u>	Attention: <u>Paul Lenaker</u>	<input type="checkbox"/> UST <input type="checkbox"/> Superfund <input type="checkbox"/> Emissions <input type="checkbox"/> Clean Air Act
Address: <u>9856 S. 57th St.</u>	Copy To:	Company Name: <u>Terracon Consultants</u>	<input type="checkbox"/> Voluntary Clean Up <input type="checkbox"/> Dry Clean <input type="checkbox"/> RCRA <input type="checkbox"/> Other
<u>Franklin, WI, 53122</u>		Address: <u>9856 - S. 57th St. Franklin, WI</u>	
Email To: <u>Paul.Lenaker.com</u>	Purchase Order No.:	Pace Quote Reference:	<b>Location of Sampling by State</b> <u>WI</u>
Phone: <u>414-423-2255</u> Fax:	Project Name: <u>Lake Country Square</u>	Pace Project Manager/Sales Rep. <u>Kirsten Hogberg</u>	Reporting Units ug/m <sup>3</sup> <input checked="" type="checkbox"/> mg/m <sup>3</sup> <input type="checkbox"/> PPBV <input type="checkbox"/> PPMV <input type="checkbox"/> Other <input type="checkbox"/>
Requested Due Date/TAT:	Project Number: <u>32197210</u>	Pace Profile #: <u>24769</u>	Report Level: <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV <input type="checkbox"/> Other

ITEM #	'Section D Required Client Information <b>AIR SAMPLE ID</b> Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tediab Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - in Hg)	Canister Pressure (Final Field - in Hg)	Summa Can Number	Flow Control Number	Method:								Pace Lab ID
					COMPOSITE START		COMPOSITE - ENOGRAB						PM10	SC - Fixed Gas (%)	TO-3 BTEX	TO-3M (Methane)	TO-14	TO-15 Full List VOCs	TO-15 Short List BTEX	TO-15 Short List Chlorinated	
					DATE	TIME	DATE	TIME													
1	VP-1R		6LC-1		11-20-19	1134	11-20-19	1204	29	8	2767	2399									001
2	VP-2		6LC-1			1138		1208	29	8	1530	2423									002
3	VP-3		6LC-1			1338		1408	28	9	2390	2283									003
4	VP-4		6LC-1			1341		1411	25	5	2843	2221									004
5	VP-5		6LC-1			1343		1413	29	7	1537	2464									005

Comments :	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	<u>[Signature]</u> Terracon	11-20-19	4:00PM	<u>[Signature]</u> PACE	11/21/19	1120	-	Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N
								Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: <u>Lucas P. Chabela</u>					
SIGNATURE of SAMPLER: <u>[Signature]</u>	DATE Signed (MM/DD/YY) <u>11-20-19</u>				

ORIGINAL





Document Name:  
Air Sample Condition Upon Receipt  
Document No.:  
F-MN-A-106-rev.19

Document Revised: 14Oct2019  
Page 1 of 1  
Issuing Authority:  
Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name:  
**TERRALON**

Project #:

**WO# : 10500306**

Courier:  Fed Ex  UPS  USPS  Client  
 Pace  Speedee  Commercial See Exception

PM: KNH Due Date: 12/02/19  
CLIENT: Terracon-WI

Tracking Number: **1083 0282 3203, 3199**

Custody Seal on Cooler/Box Present?  Yes  No Seals Intact?  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Tin Can  Other: \_\_\_\_\_ Temp Blank rec:  Yes  No

Temp. (TO17 and TO13 samples only) (°C): X Corrected Temp (°C): X

Thermometer Used:  G87A9170600254  
 G87A9155100842

Temp should be above freezing to 6°C Correction Factor: X

Date & Initials of Person Examining Contents: 11/21/19 cmj

Type of ice Received  Blue  Wet  None

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Media: <u>(Air Can)</u> Airbag Filter TDT Passive		11. Individually Certified Cans Y <u>(N)</u> (list which samples)
Is sufficient information available to reconcile samples to the COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	12.
Do cans need to be pressurized? (DO NOT PRESSURIZE 3C or ASTM 1946!!!)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	13.

Gauge #  10AIR26  10AIR34  10AIR35  4097

Canisters					Canisters				
Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure	Sample Number	Can ID	Flow Controller	Initial Pressure	Final Pressure
VP-1R	2767	2399	-7	+5					
VP-2	1530	2423	-7	+5					
VP-3	2390	2283	-8	+5					
VP-4	2843	2221	-7.5	+5					
VP-5	1537	2464	-8	+5					

CLIENT NOTIFICATION/RESOLUTION

Field Data Required?  Yes  No

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

Project Manager Review:

Nathan Boberg

Date: 11/22/19

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

**SUB-SLAB/SOIL GAS / INDOOR AIR SAMPLING INFORMATION FORM**

PROJECT NAME Lake Country

PROJECT LOCATION Ryan St. Pewaukee

PROJECT NO. 58197210

Sample ID / Location: SW VP-1 Date: 10/25/15 Time: 1027

Summa Canister #: 34413 Flow Controller #: 1026 Flow Rate: 214 cm<sup>3</sup>/min

Start Time: 959 Canister Vacuum: 24 "Hg Stop Time: 1027 Canister Vacuum: 9 "Hg

Sample Point Description & Method Subslab vapor

For soil gas sampling

Sample Zone Soil Type (circle one): ~~Clay Silt Sand Gravel Other~~

Apparent Moisture Content of Sampling Zone (circle one): ~~Dry Moist Saturated~~

Sample Depth / Height: \_\_\_\_\_ feet -NA

Organic Vapor Reading: 0.2 ppm PID used: #2

Volume Purged & Purge Method: He meter, 15 min, PID Smith

Sampling Train/Tubing Type(s)/Dia: \_\_\_\_\_

Cleaning Performed in Field: \_\_\_\_\_

Sub-Slab Leak Testing: Helium Meter Used:  He Ambient Air: 40 ppm

Isopropyl Alcohol (2-Propanol) used: yes or no He Shroud: 450 ppm

Comments / Problems:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Form Completed By AA

Date 10/25/15

0001

**SUB-SLAB/SOIL GAS / INDOOR AIR SAMPLING INFORMATION FORM**

PROJECT NAME Lake Country Square

PROJECT LOCATION Peawaukee, WI

PROJECT NO. 581A 7210

Sample ID / Location: WP-1R Date: 11-20-19 Time: 1134  
 Summa Canister #: 2767 Flow Controller #: 2399 Flow Rate: \_\_\_\_\_ cm<sup>3</sup>/min  
 Start Time: 1134 Canister Vacuum: 29 "Hg Stop Time: 1204 Canister Vacuum: 8 "Hg

Sample Point Description & Method \_\_\_\_\_

For soil gas sampling  
 Sample Zone Soil Type (circle one): Clay Silt Sand Gravel Other \_\_\_\_\_  
 Apparent Moisture Content of Sampling Zone (circle one): Dry Moist Saturated  
 Sample Depth / Height: \_\_\_\_\_ feet

Organic Vapor Reading: <1 ppm PID used: MINI-RAE 3000

Volume Purged & Purge Method: \_\_\_\_\_

Sampling Train/Tubing Type(s)/Dia: \_\_\_\_\_

Cleaning Performed in Field:

Sub-Slab Leak Testing: Helium Meter Used: ION GAS CHECK He Ambient Air: 20 ppm  
 He Shroud: 60 ppm  
 Isopropyl Alcohol (2-Propanol) used: yes or no - 999,999 - INSIDE

Comments / Problems: PURGE 5 MIN WITH PID  
PURGE 15 MIN WITH HE INSTRUMENT

Form Completed By [Signature]

Date 11-20-19



**SUB-SLAB/SOIL GAS / INDOOR AIR SAMPLING INFORMATION FORM**

PROJECT NAME Lake Country Square  
 PROJECT LOCATION Peawaukee, WI PROJECT NO. 58197210

Sample ID / Location: VP-2 Date: 11-20-19 Time: 1138  
 Summa Canister #: 1530 Flow Controller #: 2423 Flow Rate: \_\_\_\_\_ cm<sup>3</sup>/min  
 Start Time: 1138 Canister Vacuum: 29 "Hg Stop Time: 1208 Canister Vacuum: 8 "Hg

Sample Point Description & Method \_\_\_\_\_

For soil gas sampling  
 Sample Zone Soil Type (circle one): Clay Silt Sand Gravel Other \_\_\_\_\_  
 Apparent Moisture Content of Sampling Zone (circle one): Dry Moist Saturated  
 Sample Depth / Height: \_\_\_\_\_ feet

Organic Vapor Reading: <1 ppm PID used: MINI PAK-3000

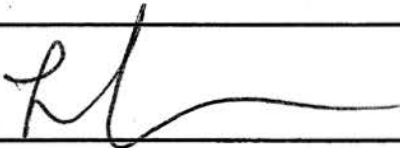
Volume Purged & Purge Method: \_\_\_\_\_

Sampling Train/Tubing Type(s)/Dia: \_\_\_\_\_

Cleaning Performed in Field:

Sub-Slab Leak Testing: Helium Meter Used: ION GAS CHECK He Ambient Air: 20 ppm  
 He Shroud: 60 ppm  
 Isopropyl Alcohol (2-Propanol) used: yes or no - 999,999 ppm INSIDE

Comments / Problems: PURGE 5 MIN WITH PID  
PURGE 15 MIN WITH HE INSTRUMENT

Form Completed By  Date 11-20-19

**SUB-SLAB/SOIL GAS / INDOOR AIR SAMPLING INFORMATION FORM**

PROJECT NAME Lake Country Square  
 PROJECT LOCATION Peewaukee, WI PROJECT NO. 58187210

Sample ID / Location: VB-3 Date: 11-20-19 Time: 1338  
 Summa Canister #: 2390 Flow Controller #: 2283 Flow Rate: \_\_\_\_\_ cm<sup>3</sup>/min  
 Start Time: 1338 Canister Vacuum: 28 "Hg Stop Time: 1408 Canister Vacuum: 9 "Hg

Sample Point Description & Method \_\_\_\_\_

For soil gas sampling  
 Sample Zone Soil Type (circle one): Clay Silt Sand Gravel Other \_\_\_\_\_  
 Apparent Moisture Content of Sampling Zone (circle one): Dry Moist Saturated  
 Sample Depth / Height: \_\_\_\_\_ feet

Organic Vapor Reading: <1 ppm PID used: MINI-RAE-3000

Volume Purged & Purge Method: \_\_\_\_\_

Sampling Train/Tubing Type(s)/Dia: \_\_\_\_\_

Cleaning Performed in Field:

Sub-Slab Leak Testing: Helium Meter Used: ION GAS CHECK He Ambient Air: 20 ppm  
 He Shroud: 60 ppm  
 Isopropyl Alcohol (2-Propanol) used: yes or no 999,999 ppm INSIDE

Comments / Problems: PURGE 5 MIN WITH PID  
PURGE 15 MIN WITH ION GAS CHECK

Form Completed By [Signature] Date 11-20-19

SUB-SLAB/SOIL GAS / INDOOR AIR SAMPLING INFORMATION FORM

PROJECT NAME Lake Country Square  
 PROJECT LOCATION Peawaukee, WI PROJECT NO. 58187210

Sample ID / Location: UP-4 Date: 11-20-19 Time: 1341  
 Summa Canister #: 2843 Flow Controller #: 2221 Flow Rate: \_\_\_\_\_ cm<sup>3</sup>/min  
 Start Time: 1341 Canister Vacuum: 25 "Hg Stop Time: 1411 Canister Vacuum: 5 "Hg

Sample Point Description & Method \_\_\_\_\_

For soil gas sampling  
 Sample Zone Soil Type (circle one): Clay Silt Sand Gravel Other \_\_\_\_\_  
 Apparent Moisture Content of Sampling Zone (circle one): Dry Moist Saturated  
 Sample Depth / Height: \_\_\_\_\_ feet

Organic Vapor Reading: 21 ppm PID used: MINI-RAE 3000

Volume Purged & Purge Method: \_\_\_\_\_

Sampling Train/Tubing Type(s)/Dia: \_\_\_\_\_

Cleaning Performed in Field: \_\_\_\_\_

Sub-Slab Leak Testing: Helium Meter Used: ION GAS CHECK He Ambient Air: 20 ppm  
 He Shroud: 60 ppm  
 - 999,999 PPM INSIDE

Isopropyl Alcohol (2-Propanol) used: yes or no

Comments / Problems: PURGE WITH PID FOR 5 MIN  
PURGE 15 MIN WITH ION GAS CHECK

Form Completed By [Signature] Date 11-20-19



SUB-SLAB/SOIL GAS / INDOOR AIR SAMPLING INFORMATION FORM

PROJECT NAME Lake Country Square

PROJECT LOCATION Peewaukee, WI

PROJECT NO. 5818720

Sample ID / Location: UP-5 Date: 11-20-19 Time: 1343  
 Summa Canister #: 1343 1537 Flow Controller #: 2464 Flow Rate: \_\_\_\_\_ cm<sup>3</sup>/min  
 Start Time: 1343 Canister Vacuum: 29 "Hg Stop Time: 1413 Canister Vacuum: 7 "Hg

Sample Point Description & Method \_\_\_\_\_

For soil gas sampling  
 Sample Zone Soil Type (circle one): Clay Silt Sand Gravel Other \_\_\_\_\_  
 Apparent Moisture Content of Sampling Zone (circle one): Dry Moist Saturated  
 Sample Depth / Height: \_\_\_\_\_ feet

Organic Vapor Reading: CL ppm PID used: MINI RAE 3000

Volume Purged & Purge Method: \_\_\_\_\_

Sampling Train/Tubing Type(s)/Dia: \_\_\_\_\_

Cleaning Performed in Field:

Sub-Slab Leak Testing: Helium Meter Used: ION GAS CHECK He Ambient Air: 20 ppm  
 He Shroud: 60 ppm  
 Isopropyl Alcohol (2-Propanol) used: yes or no -999,999 ppm  
DUPLICATE

Comments / Problems: POUR 5 MIN WITH PID  
POUR 15 MIN WITH ION GAS CHECK

Form Completed By [Signature]

Date 11-20-19