

From: Danelski, Denise D - DNR
Sent: Tuesday, August 25, 2020 11:54 AM
To: Neste, David E - DNR
Subject: FW: Notification for Hazardous Substance Discharge (Non-Emergency)
Attachments: Fond du Lac - WDNR Notification.pdf; Fond du Lac - Notification WDNR.pdf

Hi Dave,

I received this email regarding a release notification and looking for NAR. **For now** I have entered the documents in e-file Georgetown Cleaners, #02-20-546625 (closed 7/29/2011), and this also involves the Manowske sites.

I pulled up this parcel information from RR Sites map:



Let me know if you need something for review of these closed sites.

Thanks,
Denise

We are committed to service excellence.

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

Denise D. Danelski

Environmental Program Associate – Remediation & Redevelopment
Wisconsin Department of Natural Resources
2984 Shawano Ave, Green Bay WI 54313-6727
Landline Phone: 920-662-5494 (will be disconnected October, 2020)
Work Phone: 920-510-4537
denise.danelski@wisconsin.gov



From: Lutz, David @ Chicago <David.Lutz@cbre.com>
Sent: Friday, August 21, 2020 9:35 AM
To: Danelski, Denise D - DNR <Denise.Danelski@wisconsin.gov>
Subject: Notification for Hazardous Substance Discharge (Non-Emergency)

Walgreens Store #10496
Fond du Lac, Wisconsin

Hello Denise – CBRE on behalf of Walgreen Co. is submitting this Notification for Hazardous Substance Discharge (Non-Emergency). The property was previously identified as BRRTS #022054662/ DNR Facility ID #420006620, BRRTS #0320553033 DNR Facility ID #42224110, and BRRTS #0320001894 DNR Facility ID #420024110.

Based on the previous closures are the property, CBRE respectfully requests a No Action Required (NAR) status from WDNR.

Thank you

David Lutz LPG
Director **Environmental Consulting**
CBRE **Assessment** **Consulting Services**
700 Commerce Drive, Suite 450, Oak Brook, Illinois 60523
859-940-1580 (cell)
David.Lutz@CBRE.com | www.cbre.us/assessment

Please consider the environment before printing this email. This email may contain information that is confidential or attorney-client privileged and may constitute inside information. The contents of this email are intended only for the recipient(s) listed above. If you are not the intended recipient, you are directed not to read, disclose, distribute or otherwise use this transmission. If you have received this email in error, please notify the sender immediately and delete the transmission. Delivery of this message is not intended to waive any applicable privileges.

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: Historical usage as machinery/repair shop, railroad siding, petroleum company, and dry cleaning operation.

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

Date DNR Notified:

1. Discharge Reported By		
Name David Lutz	Firm CBRE	Phone Number (include area code) (859) 940-1580
Mailing Address 700 Commerce Drive, Suite 450, Oak Brook, Illinois 60523		Email David.Lutz@cbre.com

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. Walgreens Store #10496		
Location: Include street address, <u>not PO Box</u> . 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. 192 North Mainstreet		
Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city. Fond du Lac		
County Fond Du Lac	Legal Description: ¼ of ¼ Section _____, Town 15 N, Range 17 <input type="radio"/> E <input type="radio"/> W	WTM: X Y

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. Unknown	
<input type="checkbox"/> 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)	Phone Number	Email		
Mailing Address		City	State	ZIP Code

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary. Walgreen Co.				
Contact Person Name (if different) Haidee Martinez	Phone Number (847) 722-4190	Email haidee.martinez@walgreens.com		
Mailing Address 106 Wilmot Road, MS 1632		City Deerfield	State IL	ZIP Code 60015

Notification For Hazardous Substance Discharge (Non-Emergency Only)

4. Hazardous Substance Information

Identify hazardous substance discharged (check all that apply):

- | | | |
|--|---|--|
| <input type="checkbox"/> VOCs | (VOCs continued) | <input type="checkbox"/> Metals |
| <input type="checkbox"/> PCE | <input type="checkbox"/> Mineral Oil | <input type="checkbox"/> Arsenic |
| <input type="checkbox"/> TCE | <input type="checkbox"/> Waste Oil | <input type="checkbox"/> Chromium |
| <input type="checkbox"/> Other Chlorinated | <input type="checkbox"/> Petroleum-Unknown Type | <input type="checkbox"/> Lead |
| <input type="checkbox"/> Diesel | <input checked="" type="checkbox"/> PAHs | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Fuel Oil | <input type="checkbox"/> PCBs | <input type="checkbox"/> Pesticides: _____ |
| <input type="checkbox"/> Gasoline | <input type="checkbox"/> Cyanide | <input type="checkbox"/> Fertilizer: _____ |
| <input type="checkbox"/> Hydraulic Oil | <input type="checkbox"/> Leachate | <input type="checkbox"/> RCRA Hazardous Waste: _____ |
| <input type="checkbox"/> Jet Fuel | <input type="checkbox"/> Manure | <input type="checkbox"/> Other: _____ |
| | | <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 checked="" 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 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="08/11/2020"/> | 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.
None

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

For all confirmed releases from USTs occurring after 9/30/2007 please provide the following information:

- | Source | Cause |
|---|--|
| <input type="checkbox"/> Tank | <input type="checkbox"/> Spill |
| <input type="checkbox"/> Piping | <input type="checkbox"/> Overfill |
| <input type="checkbox"/> Dispenser | <input type="checkbox"/> Corrosion |
| <input type="checkbox"/> Submersible Turbine Pump | <input type="checkbox"/> Physical or Mechanical Damage |
| <input type="checkbox"/> Delivery Problem | <input type="checkbox"/> Installation Problem |
| | <input type="checkbox"/> Other (does not fit any of above) |
| <input checked="" type="checkbox"/> Does not apply. | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Other (specify): _____ | |

Submit this completed form along with any associate lab results using the RR Program Submittal Portal, found on the DNR website at <https://dnr.wi.gov/topic/Brownfields/Submittal.html>.

If you have any questions, please contact the appropriate regional Environmental Program Associate (EPA) listed under the "EPAs" tab at <https://dnr.wi.gov/topic/Brownfields/Contact.html>.

August 11, 2020

Attention: R&R Associate
Wisconsin Department of Natural Resources
Remediation and Redevelopment Program – Southeast Region
2300 North Martin Luther King Drive
Milwaukee, WI 53212
Email: DNRRRSER@wisconsin.gov

To Whom It May Concern:

In connection with the potential sale-lease back of the Subject Property as a retail store and pharmacy CBRE, Inc. (CBRE) recently completed a Limited Phase II Environmental Site Assessment (ESA) for the Walgreens Store #10496 located at 192 North Mainstreet in Fond du Lac, Wisconsin for CBRE | Capital Markets dated August 11, 2020.

The purpose of the Limited Phase II ESA was to investigate a Recognized Environmental Condition (REC) identified in a currently ongoing Phase I Environmental Site Assessment (ESA) prepared by CBRE. Specifically, the following REC was identified, which warranted investigation.

Georgetown Cleaners - Closed ERP and Closed VPLE Case (Final Case Closure with Continuing Obligations, dated July 29, 2011) - The letter stated "regarding the closure request for Former Georgetown Cleaners Redevelopment site, the DNR considers this site closed and no further investigation or remediation is required at this time. On May 25, 2011, the NER Closure Committee reviewed the Closure Request regarding the petroleum and chlorinated solvent contamination from the Former Georgetown Cleaners. A conditional closure letter was issued on June 1, 2011 and documentation was received on July 22, 2011, that the conditions in the letter were met. The site was most recently used as a dry cleaner facility. Soil and groundwater has been contaminated with chlorinated solvents and petroleum. The contaminated soil on the Property and in the East Main Street was excavated to the extent practicable. Pavement, phytoremediation trenches, and landscaping completed the remedial action at the site. As part of the new building construction, a vapor venting system was voluntarily installed and is being maintained by Walgreens. Some contamination of the soil and groundwater remains and is addressed by the conditions of closure in this letter. The final closure decision was based on the property being used for retail purposes and customer parking." The following Continuing Obligations and GIS Registry requirements were noted: 1) groundwater contamination is present above ch. NR140, Wis. Adm. Code enforcement standards; 2) residual soil contamination exists that must be property managed should it be excavated or removed; 3) pavement, an engineering cover or soil barrier must be maintained over contaminated soil and the state must approve any changes to this barrier; and 4) closure is based on specific exposure conditions being maintained. If changes in property use or land use are planned; the Department must be notified; and an assessment must be made of whether the closure is still protective. Additional investigation and/or remedial action may be necessary.

Manowske Welding, Inc. - Closed LUST Case (2,500-gallon UST) with a May 1993 release date with closure issued on April 7, 1999. Per the NFA, "the most recent groundwater monitoring data at this site indicates an exceedance of the NR 140 preventive action limit (PAL) for 1,2-dichloroethane (1,2-DCA) at two monitoring wells and at the sump. The Department believes that the above criteria have been or will be met because of the remediation that has occurred at this site. Therefore, an exemption for the 1,2-DCA PAL is granted. This letter serves as your exemption. At this time, the Department is not requiring any further investigation or other actions concerning this specific site."

Manowske Welding Inc. - Closed LUST Case (1,000-gallon UST) and Closed VPLE Case dated July 29, 2011. According to the Final Case Closure with Continuing Obligations Letter, "the former Manowske Welding and the adjacent former Georgetown Cleaners are on the same deed and are both enrolled in the Voluntary Party Liability Exemption Process (VPLE). The site was used as a welding, machining, and metal structure assembly business from the 1960s to 2005. Soil has been contaminated with petroleum and historical waste metals. The contaminated soil on the property was excavated to the extent practicable. Pavement and landscaping completed the remedial action at the site. A passive venting system was installed under the new retail building. However, the Department is not requiring maintenance of this system as a continuing obligation because no contamination was detected under the building and utility plugs were installed in the utility trenches. Some contaminated soil remains and is addressed by the conditions of closure in this letter." The following Continuing Obligations and GIS Registry requirements were noted: 1) residual soil contamination exists that must be properly managed should it be excavated or removed; 2) a building, pavement, or engineered cover or soil barrier must be maintained over contaminated soil and the state must approve any changes to this barrier. Prohibited activities include 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped and paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a different building or structure.

On July 27, 2020, six soil borings were advanced (SB-01 to SB-06) to depths ranging between 12 feet below ground surface (bgs) to 20 feet bgs. A zone of perched groundwater was encountered at approximately 6 feet bgs in SB-01. No other soil borings were saturated indicative of groundwater. Soil samples were collected and screened with a photoionization detector (PID). No PID readings over background were detected during the field screening. CBRE collected one soil sample from each boring for analysis of Volatile Organic Compounds (VOCs) by EPA Method 260/5035 and Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8270. A groundwater sample was collected from SB-01/TW-01 and analyzed for VOCs. In addition, CBRE advanced four soil vapor probes. Summa Canisters were used to collect soil samples. The canisters were analyzed for select VOCs in accordance with EPA Method TO-15.

Laboratory results indicated the following:

Concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, toluene, and total xylenes were detected in SB-01 (3-4) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)anthracene, benza(a)pyrene and benzo(b)fluoranthene were detected in soil sample SB-03 (5-6) exceeding the site specific Soil to Groundwater RSLs.

Concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, and total xylenes were detected in soil sample SB-06 (3-4) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)pyrene, benzo(b)fluoranthene, and chrysene detected in the groundwater sample (TW-01) exceeded the PAL.

Based on the concentrations and high turbidity of the groundwater sample, CBRE believes this isn't fully representative of the underlying groundwater conditions at the site.

Wisconsin does not currently have regulatory guidance or standards for soil vapor, therefore, CBRE modeled commercial risk using the United States Environmental Protection Agency (USEPA or EPA) Office of Solid Waste and Emergency Response (OSWER) Commercial Vapor Intrusion Screening Level (VISL). The VISL calculator identified chemicals that are considered sufficiently volatile and toxic to warrant an investigation of the soil gas intrusion pathway when present as subsurface contaminants.

Based on the commercial land use of the property, the use of commercial air handling equipment, and the frequent opening of retail doors, CBRE believe the vapor intrusion concern is low at the Subject Property.

A copy of the August 11, 2020 Limited Phase II ESA is attached to this letter. A completed Notification for Hazardous Substance Discharge Form 4400-225 will be submitted along with this letter to WDNR.

To facilitate the sale and purchase of the property, the current Property Owner, Walgreens, wishes to pursue a No Action Required (NAR) status from WDNR for this site. Please provide a response to this letter detailing the additional actions required by WDNR, if any, to address the exceedances identified in the Limited Phase II ESA and to advance towards achieving NAR status.

Please feel free contact me at (859) 940-1580 or by email at david.lutz@cbre.com should you have any questions.

Sincerely,
CBRE, INC.



David Lutz
Director, Phase II and Remedial Services

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: Historical usage as machinery/repair shop, railroad siding, petroleum company, and dry cleaning operation.

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

Date DNR Notified:

1. Discharge Reported By		
Name David Lutz	Firm CBRE	Phone Number (include area code) (859) 940-1580
Mailing Address 700 Commerce Drive, Suite 450, Oak Brook, Illinois 60523		Email David.Lutz@cbre.com

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. Walgreens Store #10496		
Location: Include street address, <u>not PO Box</u> . 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. 192 North Mainstreet		
Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city. Fond du Lac		
County Fond Du Lac	Legal Description: ¼ of ¼ Section , Town 15 N, Range 17 <input type="radio"/> E <input type="radio"/> W	WTM: X Y

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. Unknown		
<input type="checkbox"/> 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)	Phone Number	Email		
Mailing Address	City	State	ZIP Code	

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary. Walgreen Co.				
Contact Person Name (if different) Haidee Martinez	Phone Number (847) 722-4190	Email haidee.martinez@walgreens.com		
Mailing Address 106 Wilmot Road, MS 1632	City Deerfield	State IL	ZIP Code 60015	

(continued)

Notification For Hazardous Substance Discharge (Non-Emergency Only)

4. Hazardous Substance Information

Identify hazardous substance discharged (check all that apply):

- | | | |
|--|---|--|
| <input type="checkbox"/> VOCs | (VOCs continued) | <input type="checkbox"/> Metals |
| <input type="checkbox"/> PCE | <input type="checkbox"/> Mineral Oil | <input type="checkbox"/> Arsenic |
| <input type="checkbox"/> TCE | <input type="checkbox"/> Waste Oil | <input type="checkbox"/> Chromium |
| <input type="checkbox"/> Other Chlorinated | <input type="checkbox"/> Petroleum-Unknown Type | <input type="checkbox"/> Lead |
| <input type="checkbox"/> Diesel | <input checked="" type="checkbox"/> PAHs | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Fuel Oil | <input type="checkbox"/> PCBs | <input type="checkbox"/> Pesticides: _____ |
| <input type="checkbox"/> Gasoline | <input type="checkbox"/> Cyanide | <input type="checkbox"/> Fertilizer: _____ |
| <input type="checkbox"/> Hydraulic Oil | <input type="checkbox"/> Leachate | <input type="checkbox"/> RCRA Hazardous Waste: _____ |
| <input type="checkbox"/> Jet Fuel | <input type="checkbox"/> Manure | <input type="checkbox"/> Other: _____ |
| | | <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 checked="" 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 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="08/11/2020"/> | 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.
None

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

For all confirmed releases from USTs occurring after 9/30/2007 please provide the following information:

- | <u>Source</u> | <u>Cause</u> |
|---|--|
| <input type="checkbox"/> Tank | <input type="checkbox"/> Spill |
| <input type="checkbox"/> Piping | <input type="checkbox"/> Overfill |
| <input type="checkbox"/> Dispenser | <input type="checkbox"/> Corrosion |
| <input type="checkbox"/> Submersible Turbine Pump | <input type="checkbox"/> Physical or Mechanical Damage |
| <input type="checkbox"/> Delivery Problem | <input type="checkbox"/> Installation Problem |
| <input checked="" type="checkbox"/> Does not apply. | <input type="checkbox"/> Other (does not fit any of above) |
| <input type="checkbox"/> Other (specify): _____ | <input type="checkbox"/> Unknown |

Submit this completed form along with any associate lab results using the RR Program Submittal Portal, found on the DNR website at <https://dnr.wi.gov/topic/Brownfields/Submittal.html>.

If you have any questions, please contact the appropriate regional Environmental Program Associate (EPA) listed under the "EPAs" tab at <https://dnr.wi.gov/topic/Brownfields/Contact.html>.

Limited Phase II Environmental Site Assessment

Walgreens Store 10496
192 North Mainstreet
Fond du Lac, WI 54935
CBRE Project Number: E00706719-104

Report Date: August 11, 2020

Prepared For:
CBRE | Capital Markets
321 North Clark Street
Chicago, IL 60654

www.cbre.com/Assessment

CBRE



August 11, 2020

Maury Eykel
CBRE | Capital Markets
321 North Clark Street
Chicago, IL 60654
Maury.VandenEykel@cbre.com

Re: Limited Phase II Environmental Site Assessment
Walgreens Store 10496
192 North Mainstreet
Fond du Lac, WI 54935
CBRE Project No.: E00706719-104

Dear Mr. Eykel:

CBRE, Inc., a Delaware corporation (CBRE) has completed a Limited Phase II Environmental Site Assessment of the above referenced property. The work was conducted in accordance with CBRE's letter of engagement and generally accepted industry standards. This report was prepared solely for the use of CBRE | Capital Markets (hereinafter Client or User) and any party specifically referenced in [Limitations, Exceptions, and User Reliance](#) . No other party shall use or rely on this report or the findings herein, without the prior written consent of CBRE.

Thank you for the opportunity to provide our services. If you have any questions or need any additional information please contact the undersigned at (859) 940-1580 or at David.Lutz@cbre.com.

Sincerely,

CBRE, Inc. – Assessment and Consulting Services



Jennifer Stepina
Environmental Project Manager



David Lutz, EP
Director

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	SCOPE OF WORK	2
3.0	SUBSURFACE INVESTIGATION	3
3.1	Utility Clearance	3
3.2	Geophysical Survey	3
3.3	Soil Borings	3
3.4	Groundwater Sampling	4
3.5	Exterior Sub-Surface Soil Vapor Borings	4
3.6	Site Restoration	4
4.0	ANALYTICAL RESULTS	5
4.1	Soil Analytical Results	5
4.2	Groundwater Analytical Results	5
4.3	Soil Vapor Analytical Results and Vapor Modeling	6
5.0	CONCLUSIONS AND RECOMMENDATIONS	8
6.0	LIMITATIONS	10

TABLE OF APPENDICES

- APPENDIX A - Figures
- APPENDIX B - Soil Boring Logs
- APPENDIX C - Tables
- APPENDIX D - Analytical Reports

1.0 INTRODUCTION

CBRE is pleased to submit our Limited Phase II Environmental Site Assessment (Assessment or Phase II ESA) of the property identified as located at 192 North Mainstreet, Fond du Lac, WI 54935 herein referred to as the Subject Property. A Site Location Map depicting the Subject Property with pertinent site features are provided in [Appendix A](#).

Based on details included within a desktop review and Phase I Environmental Site Assessment (Phase I ESA) prepared by CBRE, the following environmental considerations warranted investigation:

The Manowske Welding Corporation, historically located in the northeast corner of the Subject Property was identified on the UST, LUST, and RCRA-SQG databases. The facility had records of one 1,000-gallon fuel oil underground storage tank (UST) and a LUST incident was granted a No Further Action (NFA) letter on May 5, 1999.

Georgetown Cleaners, a former dry-cleaning operation was located at 180 North Main Street in the southeastern portion of the Subject Property. According to historical documents reviewed by CBRE, in response to subsurface investigation activities performed by Clayton Group Services (Clayton) and Arcadis, extensive chlorinated solvent impacts were identified in soil beneath and to the south of the Georgetown Cleaners building.

In addition to the listed sites above, a filling station and private garage (auto) was depicted on the 1950 Sanborn fire insurance map adjacent to the dry cleaning operations to the east. The Bloede Fuel Company is depicted in the southwest corner of the Subject Property as well as a railroad siding.

2.0 SCOPE OF WORK

To evaluate the REC(s), this Phase II ESA was prepared in general accordance with CBRE's Proposal dated July 13, 2020, and any additional authorizations and change orders previously approved. This Phase II ESA included six soil borings, four temporary groundwater wells, and four exterior soil vapor borings to address previously mentioned RECs. Assessment Sampling locations are depicted on **Figure 2** located in [Appendix A](#),

The field work was conducted by an experienced Environmental Professional in general conformance with industry standards for Phase II ESAs. The employees wore personal protective equipment suitable for the circumstances and operated in accordance with Occupational and Health Administration (OSHA) regulations and CBRE Health, Safety, and Environmental (HSE) policies. During the work, CBRE professionals applied quality assurance and quality control measures to the work, including:

- COVID-19 protocol per CBRE and local jurisdictional requirements
- Proper review of the planned scope and site conditions
- Instrument calibration if necessary
- Proper note taking, sample container labeling, and chain-of custody completion
- Sample preservation and management
- Wearing and changing nitrile gloves during and between tasks.

The field work was completed on the date(s) indicated in the table below:

Task	Date
Geophysical Survey	July 27, 2020
Soil Borings	July 27, 2020
Groundwater Sampling	July 27, 2020
Exterior Sub-Slab Soil Vapor Borings	July 27, 2020

3.0 SUBSURFACE INVESTIGATION

3.1 Utility Clearance

Prior to conducting any subsurface drilling, CBRE contacted WI underground utility mark-out system operated by USA 811, for Subject Property underground utility mark-out and liability protection. In addition, CBRE retained the services of the Ground Penetrating Radar Systems, LLC, a private utility locator, to evaluate the assessment locations for underground utilities and geophysical anomalies using ground penetrating radar (GPR) and pipe locating equipment.

3.2 Geophysical Survey

Ground Penetrating Radar Systems, LLC conducted a geophysical survey at the Subject, as directed by CBRE. Specifically, Ground Penetrating Radar Systems, LLC investigated the assessment locations for anomalies. No utilities or geophysical anomalies were identified within a three-foot radius of the boring locations.

3.3 Soil Borings

CBRE directed the advancement of six soil borings on the Subject Property. The borings were performed using a direct push sampling rig by C.S. Drilling, Inc.. Prior to the advancement of each boring, downhole drilling equipment was decontaminated in accordance with industry-standard environmental consulting practice. Sample locations are shown on the Sample Location Plan, attached as **Figure 2** in [Appendix A](#).

Borings denoted SB-01 through SB-06, were advanced to depths ranging from 12 feet below ground surface (ft bgs) to 20-feet bgs. A zone of perched groundwater was encountered at soil boring/temporary well SB-01/TW-01 at 6-feet below ground surface during drilling. No other soil borings were saturated indicative of groundwater. Soils mainly consisted of sand, sand with clay, silty sand, and gravel. Soils were collected at 4-foot intervals using a macro-core sampler and field screened at 2 foot intervals for evidence of volatile organic compounds (VOC) contamination using a photoionization detector (PID). No PID readings over background or 0.00 parts per million (PPM) were detected during the field screening. PID readings and detailed soil descriptions are provided with the boring logs presented in [Appendix B](#).

CBRE collected one soil sample from each boring for laboratory analysis. Samples were collected at depths with elevated PID readings, or if no appreciable PID indications were encountered, at the depth most expected to contain contamination based on other observations. Samples were transferred to laboratory supplied sample containers, packed on ice in a cooler, and shipped under proper chain of custody to Eurofins TestAmerica. Samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260/5035 and polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270.

3.4 Groundwater Sampling

CBRE converted four borings into temporary groundwater sampling points to evaluate groundwater quality at the Subject Property. A one inch inside diameter PVC well screen and riser pipe was installed in the annular space of the borings for sample collection. A peristaltic pump with dedicated, disposable tubing was used to collect the groundwater samples. Only SB-01/TW-01 produced appreciable groundwater during the assessment.

The groundwater sample was transferred to laboratory supplied sample containers, packed on ice in a cooler, and shipped under proper chain of custody to Eurofins TestAmerica. Samples were analyzed for VOCs by EPA Method 8260/5035 and PAHs by EPA Method 8270.

3.5 Exterior Sub-Surface Soil Vapor Borings

CBRE directed the advancement of four soil vapor probes as shown on the Sample Location Plan, attached as **Figure 1** in [Appendix A](#). The soil vapor probes were performed using a direct push sampling rig by C.S. Drilling, Inc. to a depth of five feet bgs. A temporary vapor point connected to flexible tubing was inserted into each borehole. The annular space of the borehole was filled with sand and the surface was sealed with bentonite. Prior to sampling the tubing system was purged of ambient air with a low-flow pump. The samples were collected from each point directly into laboratory supplied one-liter Summa Canisters equipped with regulators and manometers to ensure a low flow rate of 200 milliliters per minute (ml/min).

The Summa Canisters were shipped under proper chain of custody to Eurofins TestAmerica for analysis of select VOCs in accordance with EPA Method TO-15. Specifically the following compounds were analyzed: benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), naphthalene, 1,2,4 trimethylbenzene, 1,3,5 trimethylbenzene, hexane, heptane, pentane, isopropylbenzene, tetrachloroethene (PCE), trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-1,2-DCE), 1,1-dichloroethylene (1,1-DCE), and vinyl chloride.

3.6 Site Restoration

Upon completion of sampling the borings were backfilled flush to grade with bentonite or soil cuttings, and the ground surface was repaired with asphalt or concrete as appropriate.

4.0 ANALYTICAL RESULTS

As part of CBRE's quality control and quality assurance (QA/QC) practices, a review of the laboratory analytical report was conducted. The laboratory did not identify any deviations from standard practices and procedures, and samples were submitted within allowable hold times and within proper temperature ranges. Proper chain-of-custody documentation was conducted. CBRE accepts the laboratory results as usable, with any exceptions not affecting the conclusions within the report. Summary tables for analytical results are provided in [Appendix C](#). The laboratory analytical report and chain-of-custody documentation is provided in [Appendix D](#).

4.1 Soil Analytical Results

CBRE compared the soil sample analytical results to the Soil Residual Contaminant Levels (RCL) Soil to Groundwater determination using the United States Environmental Protection Agency (EPA) Regional Screening Levels (RSL) Web Calculator and the Wisconsin Department of Natural Resources Remediation and Redevelopment (RR) Program Composite Worker (NR 720 Wisconsin Admin. Code) Industrial Not-to-Exceed Soil Residual Contaminant Levels (RCL). The site-specific and tabulated RCLs are provided in [Appendix C](#).

Concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, toluene, and total xylenes were detected in soil sample SB-01 (3-4) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected in soil sample SB-03 (5-6) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)anthracene and benzo(a)pyrene were detected in soil sample SB-04 (4-6) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)anthracene, benzo(a)pyrene, and naphthalene were detected in soil sample SB-05 (3-4) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, and total xylenes were detected in soil sample SB-06 (3-4) exceeding the site-specific Soil to Groundwater RSLs.

It should be noted that the laboratory reporting limits for many analytes exceed the RCLs due to the Wisconsin regulations requiring Method 5035 methanol preservation and resulting sample dilution.

4.2 Groundwater Analytical Results

CBRE compared the groundwater sample analytical results to the Wisconsin Department of Natural Resources (WDNR) Public Health Groundwater Quality Standards Preventative Action Limits (PALs), in accordance with Ch. NR 140, Wis. Adm Code.

The laboratory results from temporary groundwater well TW-01 identified the polynuclear aromatic hydrocarbons benzo(a)pyrene at 1.3 micrograms per liter (ug/L), benzo(b)fluoranthene at 1.2 ug/L, and chrysene at 1.1 ug/L exceeding their respective PALs. Based on the concentrations and high turbidity of the groundwater sample, CBRE believes this isn't fully representative of the underlying groundwater conditions at the site.

A Ch. NR 140 PAL, in accordance with Wisconsin State Legislature Statutes Ch. 160, is set at a percentage of an established Enforcement Standards (ES) concentration. PAL groundwater quality standards are used as design standards for facilities, practices and activities regulated by the state that can affect groundwater. They are also the level at which a regulatory agency may investigate the source of a substance in groundwater and require response actions to minimize the substance concentration and prevent exceedance of an ES.

Ch NR 140 groundwater quality ES recommendations are developed by Wisconsin Department of Health Services (DHS) based on existing "federal numbers," such as public drinking water maximum contaminant levels (MCLs), or through a statutorily prescribed process that incorporates drinking water exposure assumptions, established health based "acceptable daily intake" levels and, for carcinogenic substances, a calculated "one in a million" cancer risk level.

If an established groundwater ES is exceeded at a regulated facility, practice or activity, a response action is required to achieve compliance with the ES. Chapter NR 140 response actions include operational changes, design or construction modifications and, potentially, prohibition or closure of a facility, practice or activity.

The remaining parameters tested were either detected at concentrations below the applicable screening limits or not detected above laboratory reporting limits.

4.3 Soil Vapor Analytical Results and Vapor Modeling

Wisconsin does not currently have regulatory guidance or standards for soil vapor; therefore, CBRE modeled commercial risk using the United States Environmental Protection Agency (USEPA or EPA) Office of Solid Waste and Emergency Response (OSWER) Commercial Vapor Intrusion Screening Level (VISL) calculator to assess the cumulative health risk for a non-residential (commercial/industrial) property. The VISL calculator identifies chemicals that are considered sufficiently volatile and toxic to warrant an investigation of the soil gas intrusion pathway when present as subsurface contaminants.

The VISL calculator serves as a risk assessment tool for groundwater, near-source soil gas, sub-slab soil gas, and indoor air for commercial or residential scenarios. The calculator uses the same database of toxicity values, chemical parameters, and inhalation exposure equations as the EPA Regional Screening Levels (RSLs). Further, the calculator provides default parameters that can be changed to reflect site-specific exposure scenarios. CBRE used the site-specific soil vapor results in the VISL calculator to determine if an adverse human health condition could result that would impact the occupants of the building. CBRE applied the most conservative target cancer risk (TCR) level of 10^{-6} (one per million or $1E^{-6}$) and a target hazard quotient (THQ) of 0.1 for the non-residential (commercial/industrial) exposure scenario.

The evaluation was conducted using the online VISL cumulative risk calculators for each sample and cumulative risks from multiple detected compounds was calculated and compared to the established benchmarks. The carcinogenic evaluation relates to long term risk and the hazard indexes and quotients are more indicative of acute exposure risks from toxicity other than cancer.

Established Benchmarks for TCR and THQ

Risk	TCR Benchmark	THQ Benchmark	Typical Recommendation
High Risk	10^{-4} and Above	1.0 and Above	Mitigation
Medium Risk	Between 10^{-6} and 10^{-4}	Between 0.1 and 1.0	Monitoring
Low Risk	10^{-6} and Below	0.1 and Below	No Action

The cumulative TCRs calculated range from 8.22E-05 to 6.44E-07. The cumulative THQs calculated range from 1.37 to 2.28E-02.

The samples had calculated carcinogenic risk values below the established benchmark of 1.0×10^{-4} for mitigation and above the established benchmark of 1.0×10^{-5} for monitoring. The calculated hazard quotient values were above the established benchmark of 1.0 for mitigation and the established benchmark of 0.1 for monitoring. Based on the commercial land use of the property, the use of commercial air handling equipment, and the frequent opening of retail doors; CBRE believes the vapor intrusion concern is low at the Subject Property.

A summary of the soil vapor analytical results is attached as **Table 3** in [Appendix C](#). In addition, the VISL calculator outputs are attached in [Appendix C](#).

5.0 CONCLUSIONS AND RECOMMENDATIONS

CBRE conducted a Limited Phase II ESA at the Subject Property in Fond du Lac, WI. The scope consisted of six soil borings, four temporary groundwater monitoring wells, and four soil vapor borings on July 27, 2020 to evaluate subsurface conditions. No obvious indications of contamination were observed during field activities. Six soil samples were collected for laboratory analysis of volatile organic compounds (VOCs) in accordance with EPA Method 8260/5035 and polynuclear aromatic hydrocarbons (PAH) in accordance with EPA Method 8270. One groundwater sample was collected for analysis of volatile organic compounds (VOCs) in accordance with EPA Method 8260 and polynuclear aromatic hydrocarbons (PAH) in accordance with EPA Method 8270. Four sub-surface vapor samples were collected for laboratory analysis of select VOCs.

Concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, toluene, and total xylenes were detected in soil sample SB-01 (3-4) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene were detected in soil sample SB-03 (5-6) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)anthracene and benzo(a)pyrene were detected in soil sample SB-04 (4-6) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)anthracene, benzo(a)pyrene, and naphthalene were detected in soil sample SB-05 (3-4) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, and total xylenes were detected in soil sample SB-06 (3-4) exceeding the site-specific Soil to Groundwater RSLs.

Concentrations of benzo(a)pyrene, benzo(b)fluoranthene, and chrysene detected in the groundwater sample from temporary monitoring well TW-01 exceed the PAL.

Based on the concentrations and high turbidity of the groundwater sample, CBRE believes this isn't fully representative of the underlying groundwater conditions at the site.

Wisconsin does not currently have regulatory guidance or standards for soil vapor; therefore, CBRE modeled commercial risk using the United States Environmental Protection Agency (USEPA or EPA) Office of Solid Waste and Emergency Response (OSWER) Commercial Vapor Intrusion Screening Level (VISL) calculator to assess the cumulative health risk for a non-residential (commercial/industrial) property. The VISL calculator identifies chemicals that are considered sufficiently volatile and toxic to warrant an investigation of the soil gas intrusion pathway when present as subsurface contaminants.

The cumulative TCRs calculated range from 8.22E-05 to 6.44E-07. The cumulative THQs calculated range from 1.37 to 2.28E-02.

The samples had calculated carcinogenic risk values below the established benchmark of 1.0×10^{-4} for mitigation and above the established benchmark of 1.0×10^{-5} for monitoring. The calculated hazard quotient values were above the established benchmark of 1.0 for mitigation and the established benchmark of 0.1 for monitoring. Based on the commercial land use of the property, the use of commercial air handling equipment, and the frequent opening of retail doors; CBRE believes the vapor intrusion concern is low at the Subject Property.

Based on the exceedance of the WDNR Industrial Not-to-Exceed for soils and the groundwater PAL, it is CBRE's opinion that the exceedances identified in this Assessment should be reported to WDNR in accordance with applicable reporting requirements, specifically Wisconsin Administrative Code (WAC) Chapter NR 720 through 726 and WAC Chapter NR 140. CBRE recommends submittal of Wisconsin Hazardous Substance Discharge Notification and Source Confirmation. CBRE believes that the contamination identified is not a significant threat to human health or the environment and Walgreens may pursue a No Action Required (NAR) status from WDNR.

CBRE recommends that an additional investigation and/or corrective actions required by WDNR be conducted in accordance with all applicable state regulations. Additional actions that may potentially be required to address the exceedances may include a follow-up investigation to further delineate the extents of impacts on site.

CBRE's conclusions and recommendations are based on the results of the Limited Phase II ESA. This Phase II ESA was intended solely to investigate RECs identified in a Phase I ESA prepared by CBRE. It was not intended to satisfy the level of inquiry that may be necessary to support remedial solutions or determine migration pathways related to a release from the potentially adverse environmental conditions.

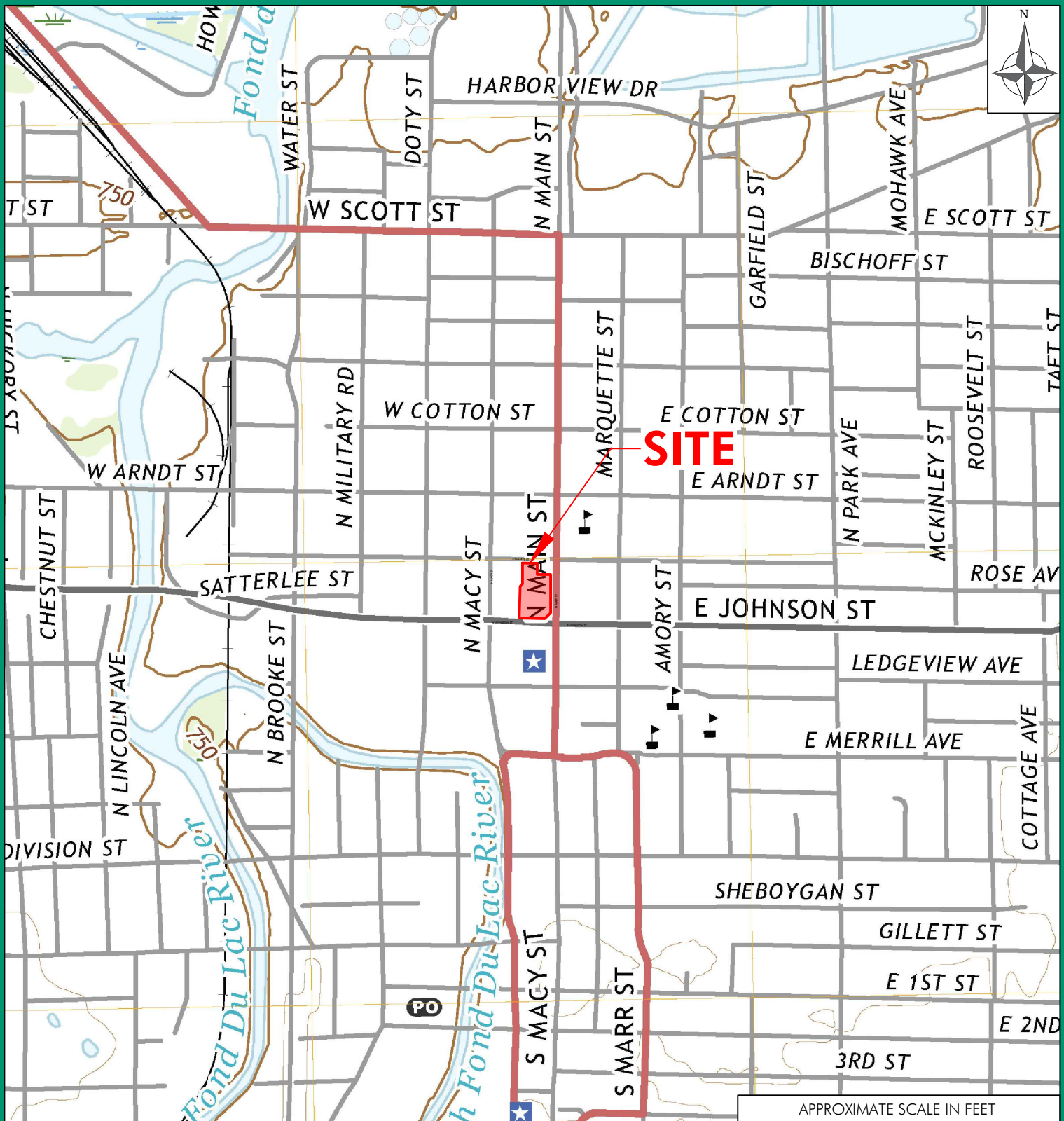
6.0 LIMITATIONS

The scope of work completed was designed solely to meet the needs of the Client. CBRE shall not be liable for any unintended usage of this report by another party. No subsurface investigation can wholly eliminate uncertainty regarding the presence of contamination on a property. The Limited Phase II ESA was designed to reduce, but not eliminate the potential for RECs at the Subject Property, within reasonable limits of time and cost. The Limited Phase II ESA is not intended to be exhaustive or all-inclusive and does not represent a guarantee of the identification of all possible environmental risk. The Limited Phase II ESA was not intended to satisfy the level of inquiry to fully satisfy environmental regulatory actions related to a release from the potentially adverse environmental conditions. CBRE accepts no liability related to environmental impact to, or from, the Subject Property regardless of the date of impact occurrence or findings.

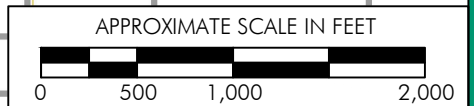
Client is advised that if the ESA is obtained with the intent of qualifying the purchaser as an innocent landowner, contiguous property owner, or bona fide prospective purchaser under CERCLA. Continuing obligations of due care and responsiveness and additional legal requirements may apply to such status. CBRE accepts no responsibility and undertakes no action related to the requirements for CERCLA protection and advises that counsel be separately consulted with respect to such requirements.

This investigation was conducted on behalf of and for the exclusive use of the Client. This report, and the findings contained herein, shall not, in whole or part, be relied upon, disseminated or conveyed to, or used by any other party without the prior written consent of CBRE.

APPENDIX A - Figures



REFERENCE: USGS 7.5-MINUTE MAP, FOND DU LAC, WISCONSIN. DATED 2018.
 CONTOUR INTERVAL 10 FEET.



EXPLANATION

— Approximate Site Boundary

Figure 1 - Site Location Map

Walgreens Store #10496
 192 North Main Street
 Fond Du Lac, Fond Du Lac County, Wisconsin 54935



ASSESSMENT & CONSULTING SERVICES

Project No. E00706719-104	Date 8.11.20	Drawn By AD	Reviewed By DL
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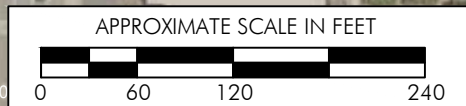
N MACY ST

WALGREENS STORE #10496
192 NORTH MAIN STREET

N MAIN ST

W JOHNSON ST

E JOHNSON ST



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EXPLANATION

— Approximate Site Boundary

Figure 2 - Site Vicinity Map

Walgreens Store #10496
192 North Main Street
Fond Du Lac, Fond Du Lac County, Wisconsin 54935



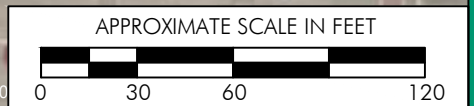
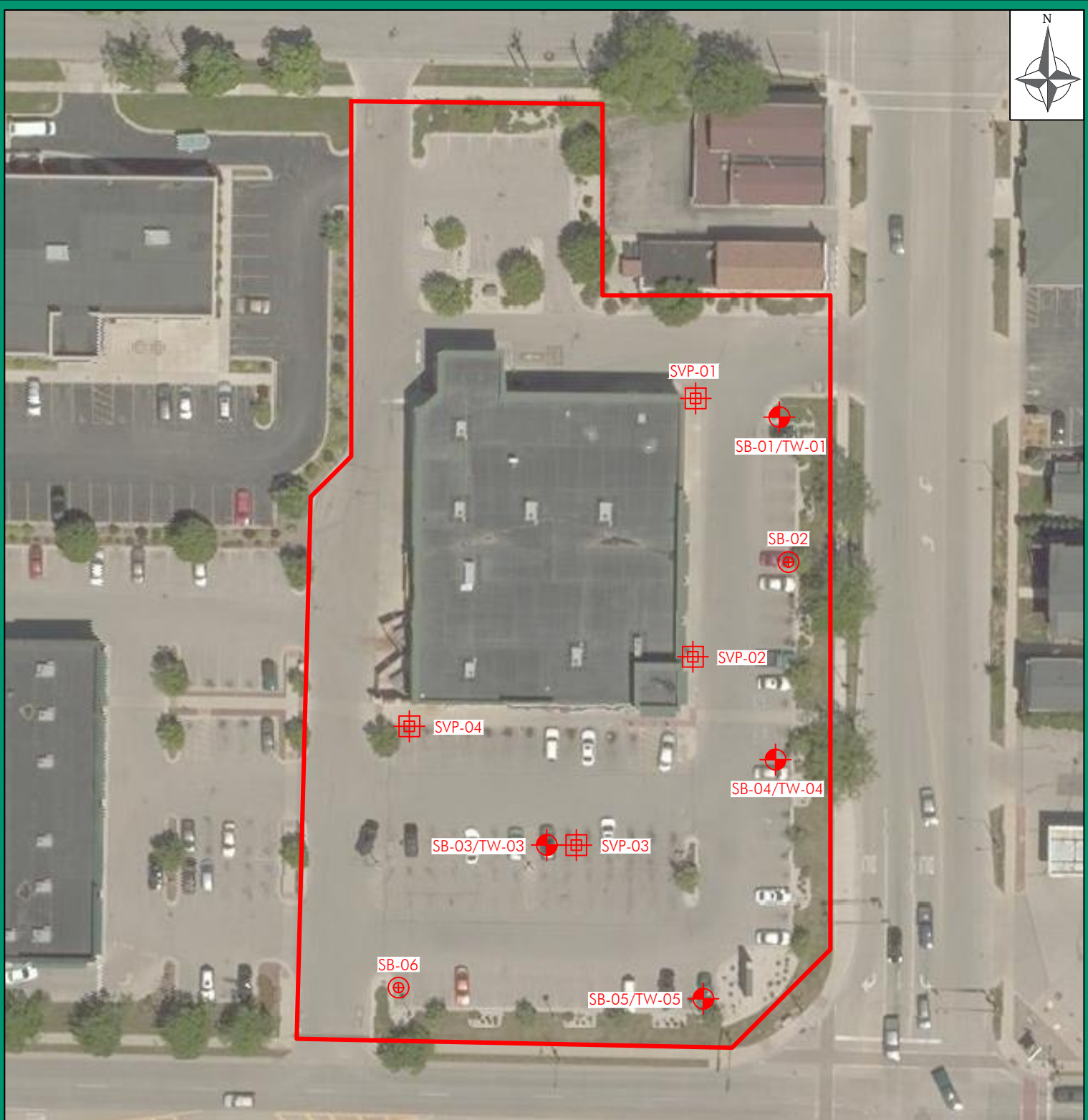
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Project No.
E00706719-104

Date
8.11.20

Drawn By
AD

Reviewed By
DL



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EXPLANATION





-  Approximate Site Boundary
-  Soil Boring Location
-  Soil Boring/Monitoring Well Location
-  Soil Vapor Sample Location

Figure 3 - Site Map
Walgreens Store #10496
192 North Main Street
Fond Du Lac, Fond Du Lac County, Wisconsin 54935



ASSESSMENT & CONSULTING SERVICES

Project No. E00706719-104	Date 8.11.20	Drawn By AD	Reviewed By DL
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APPENDIX B - Soil Boring Logs

SUBSURFACE SOIL BORING LOG

PROJECT NAME: Walgreens - Fond Du Lac	BORING I.D.: B-01
PROJECT LOCATION: 192 N Mainstreet Fond Du Lac, Wisconsin	DATE(S) DRILLED: 7/27/2020
CBRE PROJECT NUMBER: E00706719-104	CERTIFIED WELL DRILLER: CS Drilling
Samples Collected from Boring: Soil: SB-01 (3-4) @ 1100 GW: TW-01 @ 1215	DRILL METHOD: GP - 5410 DP
	BORING DIAMETER: 2.25"
FIELD LOGGED BY: Jennifer Stepina	SAMPLING METHOD/INTERVAL: MC/ 4'
	WELL DIAMETER: 1" PVC
	TOTAL DEPTH: 12

DESCRIPTIVE LOG

SAMPLE INTERVAL (FT BGS)	RECOVERY FT/FT	PID/FID (ppm)	WELL GRAPHIC REPRESENTATION	DEPTH (FT)	DESCRIPTION OF MATERIAL
0-4	3.5/4	0.0		1.0	Asphalt to 0.25'; crushed limestone fill
		0.0		2.0	Silty sand with gravel, brown, loose, moist
		0.0		3.0	
		0.0		4.0	Silty clay with trace fine gravel, black to reddish brown, medium stiff, moist
4-8	3.5/4	0.0		5.0	
		NA		6.0	Brown, soft, wet
		NA		7.0	Sandy gravel, brown, loose, wet
		NA		8.0	Silty clay with trace fine gravel, reddish brown, stiff, slightly moist
8-12	4/4	NA		9.0	
		NA		10.0	
		NA		11.0	
		NA		12.0	End of boring at 12'; no refusal

- DRILLING METHODS**
 SS - SPLIT SPOON
 AIR - AIR ROTARY
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 HA - HAND AUGER
 HSA - HOLLOW STEM AUGER
 MD - MUD DRILLING
 RC - ROCK CORING
 WR - WATER ROTARY
 DP - DIRECT PUSH

- SAMPLING METHODS**
 GP - GEOPROBE
 SS - SPLIT SPOON
 DT - DUAL TUBE
 MC - MACRO CORE

GRAPHIC COLUMN

- DEPTH TO WATER
- GROUT
- BENTONITE SEAL
- SAND PACK
- SCREEN

NA = Not applicable



ASSESSMENT AND CONSULTING SERVICES






SUBSURFACE SOIL BORING LOG

PROJECT NAME: Walgreens - Fond Du Lac	BORING I.D.: B-02
PROJECT LOCATION: 192 N Mainstreet Fond Du Lac, Wisconsin	DATE(S) DRILLED: 7/27/2020
CBRE PROJECT NUMBER: E00706719-104	CERTIFIED WELL DRILLER: CS Drilling
Samples Collected from Boring: Soil: SB-02 (6-7) @ 1205 GW: NA	DRILL METHOD: GP - 5410 DP
	BORING DIAMETER: 2.25"
FIELD LOGGED BY: Jennifer Stepina	SAMPLING METHOD/INTERVAL: MC/ 4'
	WELL DIAMETER: NA
	TOTAL DEPTH: 20

DESCRIPTIVE LOG

SAMPLE INTERVAL (FT BGS)	RECOVERY FT/FT	PID/FID (ppm)	WELL GRAPHIC REPRESENTATION	DEPTH (FT)	DESCRIPTION OF MATERIAL
0-4	4/4	0.0	NOT APPLICABLE	1.0	Asphalt to 0.25'; Crushed limestone fill
		0.0		2.0	Silty sand with gravel, black to brown, loose, moist
				3.0	
				4.0	
4-8	2.5/4	0.0		5.0	Silty clay with trace fine gravel, reddish brown, stiff, slightly moist
		0.0		6.0	
				7.0	
8-12	3.5/4	0.0		8.0	
		0.0		9.0	
				10.0	
				11.0	
12-16	3/4	0.0		12.0	
		0.0		13.0	
				14.0	
				15.0	
16-20	3/4	0.0		16.0	
		0.0		17.0	
				18.0	
				19.0	
				20.0	End of boring at 20'; groundwater/refusal not encountered

- DRILLING METHODS**
 SS - SPLIT SPOON
 AIR - AIR ROTARY
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 HA - HAND AUGER
 HSA - HOLLOW STEM AUGER
 MD - MUD DRILLING
 RC - ROCK CORING
 WR - WATER ROTARY
 DP - DIRECT PUSH

- GRAPHIC COLUMN**
-  DEPTH TO WATER
 -  GROUT
 -  BENTONITE SEAL
 -  SAND PACK
 -  SCREEN

- SAMPLING METHODS**
 GP - GEOPROBE
 SS - SPLIT SPOON
 DT - DUAL TUBE
 MC - MACRO CORE

NA = Not applicable



ASSESSMENT AND CONSULTING SERVICES

SUBSURFACE SOIL BORING LOG

PROJECT NAME: Walgreens - Fond Du Lac	BORING I.D.: B-03
PROJECT LOCATION: 192 N Mainstreet Fond Du Lac, Wisconsin	DATE(S) DRILLED: 7/27/2020
CBRE PROJECT NUMBER: E00706719-104	CERTIFIED WELL DRILLER: CS Drilling
Samples Collected from Boring: Soil: SB-03 (5-6) @ 1510 GW: NA	DRILL METHOD: GP - 5410 DP
	BORING DIAMETER: 2.25"
FIELD LOGGED BY: Jennifer Stepina	SAMPLING METHOD/INTERVAL: MC/ 4'
	WELL DIAMETER: NA
	TOTAL DEPTH: 20

DESCRIPTIVE LOG

SAMPLE INTERVAL (FT BGS)	RECOVERY FT/FT	PID/FID (ppm)	WELL GRAPHIC REPRESENTATION	DEPTH (FT)	DESCRIPTION OF MATERIAL
0-4	3/4	0.0	NOT APPLICABLE	1.0	Asphalt to 0.25'; Crushed limestone fill
		0.0		2.0	Silty sand with gravel, black, loose, moist
				3.0	
				4.0	
	5.0				
4-8	3/4	0.0		6.0	Sand, medium to coarse grained, with some gravel, loose, brown, moist
		0.0		7.0	Silty clay with trace fine gravel, reddish brown, stiff, slightly moist
	8.0				
	9.0				
	10.0				
	11.0				
	12.0				
	13.0				
	14.0				
	15.0				
	16.0				
8-12	3.5/4	0.0		17.0	
		0.0		18.0	
12-16	3/4	0.0		19.0	
		0.0		20.0	End of boring at 20'; groundwater/refusal not encountered
16-20	4/4	0.0			
		0.0			

- DRILLING METHODS**
 SS - SPLIT SPOON
 AIR - AIR ROTARY
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 HA - HAND AUGER
 HSA - HOLLOW STEM AUGER
 MD - MUD DRILLING
 RC - ROCK CORING
 WR - WATER ROTARY
 DP - DIRECT PUSH

- GRAPHIC COLUMN**
- ▼ DEPTH TO WATER
 - GROUT
 - ▨ BENTONITE SEAL
 - ░ SAND PACK
 - ▤ SCREEN

- SAMPLING METHODS**
 GP - GEOPROBE
 SS - SPLIT SPOON
 DT - DUAL TUBE
 MC - MACRO CORE

NA = Not applicable



ASSESSMENT AND CONSULTING SERVICES

SUBSURFACE SOIL BORING LOG

PROJECT NAME: Walgreens - Fond Du Lac	BORING I.D.: B-04
PROJECT LOCATION: 192 N Mainstreet Fond Du Lac, Wisconsin	DATE(S) DRILLED: 7/27/2020
CBRE PROJECT NUMBER: E00706719-104	CERTIFIED WELL DRILLER: CS Drilling
Samples Collected from Boring: Soil: SB-04 (4-6) @ 1250 GW: NA	DRILL METHOD: GP - 5410 DP
	BORING DIAMETER: 2.25"
FIELD LOGGED BY: Jennifer Stepina	SAMPLING METHOD/INTERVAL: MC/ 4'
	WELL DIAMETER: NA
	TOTAL DEPTH: 20

DESCRIPTIVE LOG

SAMPLE INTERVAL (FT BGS)	RECOVERY FT/FT	PID/FID (ppm)	WELL GRAPHIC REPRESENTATION	DEPTH (FT)	DESCRIPTION OF MATERIAL	
0-4	2.5/4	0.0	NOT APPLICABLE	1.0	Asphalt to 0.25'; Crushed limestone fill	
		0.0		2.0	Silty sand with gravel, Black to brown, loose, moist	
				3.0	Sandy clay with some gravel, black, medium stiff, moist	
				4.0		
4-8	3.5/4	0.0			5.0	
		0.0		6.0	Silty clay with trace fine gravel, reddish brown, stiff, slightly moist	
				7.0		
				8.0		
8-12	3/4	0.0			9.0	
		0.0		10.0		
				11.0		
				12.0		
12-16	3.5/4	0.0			13.0	
		0.0		14.0		
				15.0		
				16.0		
16-20	3/4	0.0			17.0	
		0.0		18.0		
				19.0		
				20.0	End of boring at 20'; groundwater/refusal not encountered	

- DRILLING METHODS**
 SS - SPLIT SPOON
 AIR - AIR ROTARY
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 HA - HAND AUGER
 HSA - HOLLOW STEM AUGER
 MD - MUD DRILLING
 RC - ROCK CORING
 WR - WATER ROTARY
 DP - DIRECT PUSH

- SAMPLING METHODS**
 GP - GEOPROBE
 SS - SPLIT SPOON
 DT - DUAL TUBE
 MC - MACRO CORE

GRAPHIC COLUMN

- DEPTH TO WATER
- GROUT
- BENTONITE SEAL
- SAND PACK
- SCREEN

NA = Not applicable



ASSESSMENT AND CONSULTING SERVICES

SUBSURFACE SOIL BORING LOG

PROJECT NAME: Walgreens - Fond Du Lac	BORING I.D.: B-05
PROJECT LOCATION: 192 N Mainstreet Fond Du Lac, Wisconsin	DATE(S) DRILLED: 7/27/2020
CBRE PROJECT NUMBER: E00706719-104	CERTIFIED WELL DRILLER: CS Drilling
Samples Collected from Boring: Soil: SB-05 (3-4) @ 1525 GW: NA	DRILL METHOD: GP - 5410 DP
	BORING DIAMETER: 2.25"
FIELD LOGGED BY: Jennifer Stepina	SAMPLING METHOD/INTERVAL: MC/ 4'
	WELL DIAMETER: NA
	TOTAL DEPTH: 20

DESCRIPTIVE LOG

SAMPLE INTERVAL (FT BGS)	RECOVERY FT/FT	PID/FID (ppm)	WELL GRAPHIC REPRESENTATION	DEPTH (FT)	DESCRIPTION OF MATERIAL
0-4	3.5/4	0.0	NOT APPLICABLE	1.0	Asphalt to 0.25'; Crushed limestone fill
		0.0		2.0	Silty sand with gravel, black to brown, loose, moist
				3.0	
				4.0	
4-8	3/4	0.0		5.0	Silty clay with trace fine gravel, reddish brown, stiff, slightly moist
		0.0		6.0	
				7.0	
				8.0	
8-12	2.5/4	0.0		9.0	
		0.0		10.0	
				11.0	
				12.0	
12-16	3/4	0.0		13.0	
		0.0		14.0	
				15.0	
				16.0	
16-20	3/4	0.0		17.0	
		0.0		18.0	
				19.0	
				20.0	End of boring at 20'; groundwater/refusal not encountered

- DRILLING METHODS**
 SS - SPLIT SPOON
 AIR - AIR ROTARY
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 HA - HAND AUGER
 HSA - HOLLOW STEM AUGER
 MD - MUD DRILLING
 RC - ROCK CORING
 WR - WATER ROTARY
 DP - DIRECT PUSH

- GRAPHIC COLUMN**
- DEPTH TO WATER
 - GROUT
 - BENTONITE SEAL
 - SAND PACK
 - SCREEN

- SAMPLING METHODS**
 GP - GEOPROBE
 SS - SPLIT SPOON
 DT - DUAL TUBE
 MC - MACRO CORE

NA = Not applicable



ASSESSMENT AND CONSULTING SERVICES

SUBSURFACE SOIL BORING LOG

PROJECT NAME: Walgreens - Fond Du Lac	BORING I.D.: B-06
PROJECT LOCATION: 192 N Mainstreet Fond Du Lac, Wisconsin	DATE(S) DRILLED: 7/27/2020
CBRE PROJECT NUMBER: E00706719-104	CERTIFIED WELL DRILLER: CS Drilling
Samples Collected from Boring: Soil: SB-06 (3-4) @ 1545 GW: NA	DRILL METHOD: GP - 5410 DP
	BORING DIAMETER: 2.25"
FIELD LOGGED BY: Jennifer Stepina	SAMPLING METHOD/INTERVAL: MC/ 4'
	WELL DIAMETER: NA
	TOTAL DEPTH: 20

DESCRIPTIVE LOG

SAMPLE INTERVAL (FT BGS)	RECOVERY FT/FT	PID/FID (ppm)	WELL GRAPHIC REPRESENTATION	DEPTH (FT)	DESCRIPTION OF MATERIAL
0-4	2.5/4	0.0	NOT APPLICABLE	1.0	Asphalt to 0.25'; Crushed limestone fill
		0.0		2.0	Silty sand with gravel, black to brown, loose, moist
				3.0	
				4.0	
4-8	3.5/4	0.0		5.0	Silty clay with trace fine gravel, reddish brown, stiff, slightly moist
		0.0		6.0	
				7.0	
				8.0	
8-12	3/4	0.0		9.0	
		0.0		10.0	
				11.0	
				12.0	
12-16	2.5/4	0.0		13.0	
		0.0		14.0	
				15.0	
				16.0	
16-20	3/4	0.0		17.0	
		0.0		18.0	
				19.0	
				20.0	End of boring at 20'; groundwater/refusal not encountered

- DRILLING METHODS**
 SS - SPLIT SPOON
 AIR - AIR ROTARY
 CFA - CONTINUOUS FLIGHT AUGER
 DC - DRIVEN CASING
 HA - HAND AUGER
 HSA - HOLLOW STEM AUGER
 MD - MUD DRILLING
 RC - ROCK CORING
 WR - WATER ROTARY
 DP - DIRECT PUSH

- GRAPHIC COLUMN**
- DEPTH TO WATER
 - GROUT
 - BENTONITE SEAL
 - SAND PACK
 - SCREEN

- SAMPLING METHODS**
 GP - GEOPROBE
 SS - SPLIT SPOON
 DT - DUAL TUBE
 MC - MACRO CORE

NA = Not applicable



ASSESSMENT AND CONSULTING SERVICES

APPENDIX C - Tables

Table 1
Soil Analytical Results
Walgreens - Fond Du Lac, WI
E00706719-104

Analyte	CAS Number	Specific Method	Units	US EPA Site-Specific Indoor Worker RSLs ¹	US EPA Site-Specific Soil to Groundwater RSLs	SB-01 (3-4) 7/27/2020 11:00	Qualifier	SB-02 (6-7) 7/27/2020 12:05	Qualifier	SB-03 (5-6) 7/27/2020 15:10	Qualifier	SB-04 (4-6) 7/27/2020 12:50	Qualifier	SB-05 (3-4) 7/27/2020 15:25	Qualifier	SB-06 (3-4) 7/27/2020 15:45	Qualifier
1,1,1,2-Tetrachloroethane	630-20-6	8260B	ug/Kg	12900	0.219 a	<58		<35		<65		<55		<55		<65	
1,1,1-Trichloroethane	71-55-6	8260B	ug/Kg	5160000	281 a	<48		<29		<54		<45		<45		<54	
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ug/Kg	4040	0.0296 a	<50		<30		<56		<48		<48		<56	
1,1,2-Trichloroethane	79-00-5	8260B	ug/Kg	912	0.0135 a	<44		<27		<50		<42		<42		<50	
1,1-Dichloroethane	75-34-3	8260B	ug/Kg	22600	0.782 a	<52		<31		<58		<49		<49		<58	
1,1-Dichloroethene	75-35-4	8260B	ug/Kg	144000	10.2 a	<49		<30		<55		<47		<47		<55	
1,1-Dichloropropene	563-58-6	8260B	ug/Kg	NSE	NSE	<38		<23		<42		<36		<36		<42	
1,2,3-Trichlorobenzene	87-61-6	8260B	ug/Kg	187000	2.09	<58		<35		<65		<55		<55		<65	
1,2,3-Trichloropropane	96-18-4	8260B	ug/Kg	NSE	NSE	<52		<31		<59		<49		<49		<59	
1,2,4-Trichlorobenzene	120-82-1	8260B	ug/Kg	37200	1.16 a	<43		<26		<48		<41		<41		<48	
1,2,4-Trimethylbenzene	95-63-6	8260B	ug/Kg	266000	8.08 a	<45		<27		<51		<43		<43		61	J
1,2-Dibromo-3-Chloropropane	96-12-8	8260B	ug/Kg	93.3 a	0.000144 a	<250	*	<150	*	<280	*	<240	*	<240	*	<280	*
1,2-Dibromoethane	106-93-4	8260B	ug/Kg	237	0.0021 a	<49		<29		<55		<46		<46		<55	
1,2-Dichlorobenzene	95-50-1	8260B	ug/Kg	1380000	29.5 a	<42		<25		<47		<40		<40		<47	
1,2-Dichloroethane	107-06-2	8260B	ug/Kg	2990	0.0484 a	<50		<30		<55		<47		<47		<56	
1,2-Dichloropropane	78-87-5	8260B	ug/Kg	9570	0.274 a	<54		<32		<61		<51		<51		<61	
1,3,5-Trimethylbenzene	108-67-8	8260B	ug/Kg	226000	8.66 a	<48		<29		<54		<45		<45		<54	
1,3-Dichlorobenzene	541-73-1	8260B	ug/Kg	NSE	NSE	<51		<30		<57		<48		<48		<57	
1,3-Dichloropropane	142-28-9	8260B	ug/Kg	4670000	12.8 a	<46		<27		<51		<43		<43		<51	
1,4-Dichlorobenzene	106-46-7	8260B	ug/Kg	16600	0.462 a	<46		<28		<51		<43		<43		<52	
1-Methylnaphthalene	90-12-0	8270D	ug/Kg	226000	5.98 a	43	J	<9.6		92	J	<11		<10		220	
2,2-Dichloropropane	594-20-7	8260B	ug/Kg	NSE	NSE	<56		<34		<63		<53		<53		<63	
2-Chlorotoluene	95-49-8	8260B	ug/Kg	4670000	NSE	<40		<24		<44		<37		<37		<44	
2-Methylnaphthalene	91-57-6	8270D	ug/Kg	934000	18.5 a	47	J	<7.3		97	J	<8.1		8.3	J	210	
4-Chlorotoluene	106-43-4	8260B	ug/Kg	4670000	NSE	<44		<27		<50		<42		<42		<50	
Acenaphthene	83-32-9	8270D	ug/Kg	14000000	549	20	J	<7.1		44	J	12	J	<7.6		200	
Acenaphthylene	208-96-8	8270D	ug/Kg	NSE	NSE	100		<5.2		81	J	14	J	18	J	270	
Anthracene	120-12-7	8270D	ug/Kg	7010000	5810	140		<6.6		220		25	J	21	J	580	
Benzene	71-43-2	8260B	ug/Kg	7520	0.233 a	<18		<11		<21		<17		<17		58	
Benzo[a]anthracene	56-55-3	8270D	ug/Kg	62300	10.5	460		<5.3		740		96		66		1900	
Benzo[a]pyrene	50-32-8	8270D	ug/Kg	6540	29.4	600		<7.6		870		110		94		2500	
Benzo[b]fluoranthene	205-99-2	8270D	ug/Kg	65400	300	670		<8.5		620		100		88		3200	
Benzo[g,h,i]perylene	191-24-2	8270D	ug/Kg	NSE	NSE	240	J	<13		580		75		78		1300	
Benzo[k]fluoranthene	207-08-9	8270D	ug/Kg	654000	2940	460		<12		860		110		78		1600	
Bromobenzene	108-86-1	8260B	ug/Kg	271000	4.21 a	<45		<27		<50		<42		<43		<50	
Bromochloromethane	74-97-5	8260B	ug/Kg	90600	2.08 a	<54		<32		<61		<51		<51		<61	
Bromodichloromethane	75-27-4	8260B	ug/Kg	1860	0.0365 a	<47		<28		<53		<44		<44		<53	
Bromoform	75-25-2	8260B	ug/Kg	131000	0.873 a	<61		<37		<68		<58		<58		<69	
Bromomethane	74-83-9	8260B	ug/Kg	4360	0.191 a	<100		<60		<110		<95		<95		<110	
Carbon tetrachloride	56-23-5	8260B	ug/Kg	4210	0.177 a	<49		<29		<54		<46		<46		<54	
Chlorobenzene	108-90-7	8260B	ug/Kg	195000	5.28 a	<49		<29		<55		<46		<46		<55	
Chloroethane	75-00-3	8260B	ug/Kg	8190000	592	<64		<38		<71		<60		<60		<71	
Chloroform	67-66-3	8260B	ug/Kg	2000	0.0612 a	<47		<28		<52		<44		<44		<52	
Chloromethane	74-87-3	8260B	ug/Kg	66900	4.86 a	<40		<24		<45		<38		<38		<45	
Chrysene	218-01-9	8270D	ug/Kg	6540000	9050	570		<11		910		110		110		2500	
cis-1,2-Dichloroethene	156-59-2	8260B	ug/Kg	467000	1.06 a	<52		<31		<58		<49		<49		<58	
cis-1,3-Dichloropropene	10061-01-5	8260B	ug/Kg	NSE	NSE	<53		<32		<59		<50		<50		<59	
Dibenz[a,h]anthracene	53-70-3	8270D	ug/Kg	6540	95.8	45		<7.6		<39		12	J	<8.1		230	
Dibromochloromethane	124-48-1	8260B	ug/Kg	77900	0.23	<62		<37		<69		<58		<58		<69	
Dibromomethane	74-95-3	8260B	ug/Kg	14300	0.0021 a	<34		<20		<38		<32		<32		<38	
Dichlorodifluoromethane	75-71-8	8260B	ug/Kg	53100	30.4	<85		<51		<95		<80		<80		<96	
Ethylbenzene	100-41-4	8260B	ug/Kg	37600	1.68 a	<23		<14		<26		<22		<22		82	
Fluoranthene	206-44-0	8270D	ug/Kg	9340000	8910	880		<7.3		1400		190		160		5000	
Fluorene	86-73-7	8270D	ug/Kg	9340000	545	41	J	<5.6		64	J	9.1	J	11	J	330	
Hexachlorobutadiene	87-68-3	8260B	ug/Kg	7870	0.267 a	<56		<34		<63		<53		<53		<63	
Indeno[1,2,3-cd]pyrene	193-39-5	8270D	ug/Kg	65400	978	250		<10		470		72		64		1300	
Isopropyl ether	108-20-3	8260B	ug/Kg	1350000	37.2 a	<35		<21		<39		<33		<33		<39	
Isopropylbenzene	98-82-8	8260B	ug/Kg	1470000	NSE	<49		<29		<54		<46		<46		<54	
Methyl tert-butyl ether	1634-04-4	8260B	ug/Kg	306000	3.22 a	<50		<30		<56		<47		<47		<56	
Methylene Chloride	75-09-2	8260B	ug/Kg	522000	2.72 a	<210		<120		<230		<190		<190		<230	
Naphthalene	91-20-3	8260B	ug/Kg	16700	0.39	140		<6.1		<47		<40		8.7	J	310	
n-Butylbenzene	104-51-8	8260B	ug/Kg	11700000	323	<49		<29		<55		<46		<46		<55	
N-Propylbenzene	103-65-1	8260B	ug/Kg	3720000	122	<52		<31		<59		<49		<49		<59	
Phenanthrene	85-01-8	8270D	ug/Kg	NSE	NSE	510		<5.5		910		130		140		2800	
p-Isopropyltoluene	99-87-6	8260B	ug/Kg	NSE	NSE	<46		<27		63	J	<43		<43		<51	
Pyrene	129-00-0	8270D	ug/Kg	7010000	1320	920		<7.8		1400		190		200		5300	
sec-Butylbenzene	135-98-8	8260B	ug/Kg	23400000	587	<50		<30		<56		<48		<48		<56	
Styrene	100-42-5	8260B	ug/Kg	5250000	133	<49		<29		<55		<46		<46		<55	
tert-Butylbenzene	98-06-6	8260B	ug/Kg	23400000	155	<50		<30		<56		<48		<48		<56	
Tetrachloroethene	127-18-4	8260B	ug/Kg	57000	1.84 a	<47		<28		<52		<44		<44		<52	
Toluene	108-88-3	8260B	ug/Kg	7860000	76.2	71		<11		<21		<18		<18		150	
trans-1,2-Dichloroethene	156-60-5	8260B	ug/Kg	4670000	11.3	<44		<27		<50		<42		<42		<50	
trans-1,3-Dichloropropene	10061-02-6	8260B	ug/Kg	NSE	NSE	<46		<27		<51		<43		<43		<51	
Trichloroethene	79-01-6	8260B	ug/Kg	2730	0.101 a	<21		<12		<23		<20		<20		<23	
Trichlorofluoromethane	75-69-4	8260B	ug/Kg	70100000	331.00	<54		<32		<61		<51		<51		<61	
Vinyl chloride	75-01-4	8260B	ug/Kg	2700	0.00647 a	<33		<20		<37		<31		<31		<37	
Xylenes, Total	1330-20-7	8260B	ug/Kg	360000	19.1 a	30	J	<17		<31		<26		<26		210	

Notes:
1. Soil Residual Contaminant Levels (RCL) determinations using the US EPA Regional Screening Levels (RSL) Web Calculator, August 10, 2020.
* = Laboratory Control Sample (LCS) or LCS duplicate is outside acceptance limits.
a = The sample specific detection limit does not support the regulatory requirement.
J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.
NSE = No Screening Level Established
Bold = Parameter was detected above detection limits
Bold = Parameter exceeds applicable regulatory guidance value



Table 2
Groundwater Analytical Results
Walgreens - Fond Du Lac, WI
E00706719-104

Analyte	CAS Number	Specific Method	Units	WDNR Public Health GW Quality Standards PAL ¹	TW-01 7/27/2020 12:15	Qualifier
2-Methylnaphthalene	91-57-6	8270D	ug/L	NSE	0.15	J
4-Chlorotoluene	106-43-4	8260B	ug/L	NSE	<0.35	
Acenaphthene	83-32-9	8270D	ug/L	NSE	<0.20	
Acenaphthylene	208-96-8	8270D	ug/L	NSE	0.36	J
Anthracene	120-12-7	8270D	ug/L	600	0.52	J
Benzene	71-43-2	8260B	ug/L	0.5	<0.15	
Benzo[a]anthracene	56-55-3	8270D	ug/L	NSE	0.97	
Benzo[a]pyrene	50-32-8	8270D	ug/L	0.02	1.3	
Benzo[b]fluoranthene	205-99-2	8270D	ug/L	0.02	1.2	
Benzo[g,h,i]perylene	191-24-2	8270D	ug/L	NSE	0.43	J
Benzo[k]fluoranthene	207-08-9	8270D	ug/L	NSE	1.2	
Bromobenzene	108-86-1	8260B	ug/L	NSE	<0.36	
Bromochloromethane	74-97-5	8260B	ug/L	NSE	<0.43	
Bromodichloromethane	75-27-4	8260B	ug/L	0.06 a	<0.37	
Bromoform	75-25-2	8260B	ug/L	0.44 a	<0.48	
Bromomethane	74-83-9	8260B	ug/L	1	<0.80	
Carbon tetrachloride	56-23-5	8260B	ug/L	0.5	<0.38	
Chlorobenzene	108-90-7	8260B	ug/L	NSE	<0.39	
Chloroethane	75-00-3	8260B	ug/L	80	<0.51	
Chloroform	67-66-3	8260B	ug/L	0.6	<0.37	
Chloromethane	74-87-3	8260B	ug/L	3	<0.32	
Chrysene	218-01-9	8270D	ug/L	0.02	1.1	
cis-1,2-Dichloroethene	156-59-2	8260B	ug/L	7	<0.41	
cis-1,3-Dichloropropene	10061-01-5	8260B	ug/L	0.04 a	<0.42	
Dibenz(a,h)anthracene	53-70-3	8270D	ug/L	NSE	<0.033	
Dibromochloromethane	124-48-1	8260B	ug/L	6	<0.49	
Dibromomethane	74-95-3	8260B	ug/L	NSE	<0.27	
Dichlorodifluoromethane	75-71-8	8260B	ug/L	200	<0.67	
Ethylbenzene	100-41-4	8260B	ug/L	140	<0.18	
Fluoranthene	206-44-0	8270D	ug/L	80	1.7	
Fluorene	86-73-7	8270D	ug/L	80	0.16	J
Hexachlorobutadiene	87-68-3	8260B	ug/L	NSE	<0.45	
Indeno[1,2,3-cd]pyrene	193-39-5	8270D	ug/L	NSE	0.91	
Isopropyl ether	108-20-3	8260B	ug/L	NSE	<0.28	
Isopropylbenzene	98-82-8	8260B	ug/L	NSE	<0.39	
Methyl tert-butyl ether	1634-04-4	8260B	ug/L	12	<0.39	
Methylene Chloride	75-09-2	8260B	ug/L	0.5 a	<1.6	
Naphthalene	91-20-3	8270D	ug/L	10	0.77	
Naphthalene	91-20-3	8260B	ug/L	10	<0.34	
n-Butylbenzene	104-51-8	8260B	ug/L	NSE	<0.39	
N-Propylbenzene	103-65-1	8260B	ug/L	NSE	<0.41	
Phenanthrene	85-01-8	8270D	ug/L	NSE	0.76	
p-Isopropyltoluene	99-87-6	8260B	ug/L	NSE	<0.36	
Pyrene	129-00-0	8270D	ug/L	50	1.9	
sec-Butylbenzene	135-98-8	8260B	ug/L	NSE	<0.40	
Styrene	100-42-5	8260B	ug/L	10	<0.39	
tert-Butylbenzene	98-06-6	8260B	ug/L	NSE	<0.40	
Tetrachloroethene	127-18-4	8260B	ug/L	0.5	<0.37	
Toluene	108-88-3	8260B	ug/L	160	0.17	J

Notes:

1. Wisconsin Department of Natural Resources (WDNR) Public Health Groundwater Quality Standards Preventive Action Limit (PAL)

a = The sample specific detection limit does not support the regulatory requirement.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

NSE = No Screening Level Established

Bold = Parameter was detected above detection limits

Bold = Parameter exceeds applicable regulatory guidance value



Table 3
Vapor Analytical Results
Walgreens - Fond Du Lac, WI
E00706719-104

Analyte	CAS Number	Specific Method	Units	SVP-01 07/27/2020 0	Qualifier	SVP-02 07/27/2020 0	Qualifier	SVP-03 07/27/2020 0	Qualifier	SVP-04 07/27/2020 0	Qualifier
1,1-Dichloroethene	75-35-4	TO15	UG/M3	<1.5		<1.5		42	J	<1.5	
1,2,4-Trimethylbenzene	95-63-6	TO15	UG/M3	13		17		<26		<2.2	
1,3,5-Trimethylbenzene	108-67-8	TO15	UG/M3	3.7	J	5.2	J	<23		<1.9	
Benzene	71-43-2	TO15	UG/M3	6.5		17		<26		6.4	
Carbon tetrachloride	56-23-5	TO15	UG/M3	<1.5		<1.5		<18		<1.5	
cis-1,2-Dichloroethene	156-59-2	TO15	UG/M3	<1.8		<1.8		2000		9.6	
Ethylbenzene	100-41-4	TO15	UG/M3	15		22		<33		4.8	J
Heptane	142-82-5	TO15	UG/M3	17		190		83	J	16	
Hexane	110-54-3	TO15	UG/M3	24		270		290		36	
Isopropylbenzene	98-82-8	TO15	UG/M3	<1.7		1.7	J	<21		<1.7	
Methyl tert-butyl ether	1634-04-4	TO15	UG/M3	<1.2		<1.2		<14		<1.2	
Naphthalene	91-20-3	TO15	UG/M3	<8.9		<8.9		<110		<8.9	
Pentane	109-66-0	TO15	UG/M3	34		380		810		150	
Tetrachloroethene	127-18-4	TO15	UG/M3	74		<2.2		<27		<2.2	
Toluene	108-88-3	TO15	UG/M3	73		97		89	J	42	
trans-1,2-Dichloroethene	156-60-5	TO15	UG/M3	<1.7		<1.7		380		2.2	J
Trichloroethene	79-01-6	TO15	UG/M3	<1.9		<1.9		250		1.9	J
Vinyl chloride	75-01-4	TO15	UG/M3	<1.1		<1.1		7400		44	
Xylene (total)	1330-20-7	TO15	UG/M3	75		110		<25		13	J
Cumulative VI Carcinogenic Risk (TCR)¹				2.63E-07		4.90E-07		8.22E-05		6.44E-07	
VI Hazard HQ (THQ)²				2.22E-02		2.28E-02		1.37		1.36E-02	

Notes:

1. Cumulative Vapor Intrusion (VI) Carcinogenic Risk (TCR) calculated using the US EPA Vapor Intrusion Screening Levels (VISL) Calculator based on US EPA Regional Screening Levels (RSLs), August 10, 2020

2. Cumulative Vapor Intrusion (VI) Target Hazard Quotient (THQ) calculated using the US EPA Vapor Intrusion Screening Levels (VISL) Calculator based on US EPA Regional Screening Levels (RSLs), August 10, 2020

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

Bold = Parameter was detected above detection limits



Site-specific Indoor Worker Equation Inputs for Soil

* Inputted values different from Indoor Worker defaults are highlighted.

Variable	Indoor Worker Soil Default Value	Form-input Value
A (PEF Dispersion Constant)	16.2302	16.8653
A (VF Dispersion Constant)	11.911	16.8653
A (VF Dispersion Constant - mass limit)	11.911	11.911
B (PEF Dispersion Constant)	18.7762	18.7848
B (VF Dispersion Constant)	18.4385	18.7848
B (VF Dispersion Constant - mass limit)	18.4385	18.4385
City (PEF Climate Zone) Selection	Default	Chicago, IL (7)
City (VF Climate Zone) Selection	Default	Chicago, IL (7)
C (PEF Dispersion Constant)	216.108	215.0624
C (VF Dispersion Constant)	209.7845	215.0624
C (VF Dispersion Constant - mass limit)	209.7845	209.7845
foc (fraction organic carbon in soil) g/g	0.006	0.006
F(x) (function dependent on U_m/U_i) unitless	0.194	0.182
n (total soil porosity) L_{pore}/L_{soil}	0.43396	0.43396
ρ_b (dry soil bulk density) g/cm ³	1.5	1.5
ρ_b (dry soil bulk density - mass limit) g/cm ³	1.5	1.5
PEF (particulate emission factor) m ³ /kg	1359344438	1560521177
ρ_s (soil particle density) g/cm ³	2.65	2.65
Q/C _{wind} (g/m ² -s per kg/m ³)	93.77	98.43071437
Q/C _{vol} (g/m ² -s per kg/m ³)	68.18	98.43071437
Q/C _{vol} (g/m ² -s per kg/m ³ - mass limit)	68.18	68.18
A _g (PEF acres)	0.5	0.5
A _g (VF acres)	0.5	0.5
A _g (VF mass-limit acres)	0.5	0.5
AT _{iw} (averaging time - indoor worker)	365	365
BW _{iw} (body weight - indoor worker)	80	80
ED _{iw} (exposure duration - indoor worker) year	25	25
EF _{iw} (exposure frequency - indoor worker) day/year	250	250
ET _{iw} (exposure time - indoor worker) hour	8	8
THQ (target hazard quotient) unitless	0.1	0.1
IRS _{iw} (soil ingestion rate - indoor worker) mg/day	50	50
LT (lifetime) year	70	70
TR (target cancer risk) unitless	0.000001	0.000001
T _w (groundwater temperature) Celsius	25	25
Theta _a (air-filled soil porosity) L_{air}/L_{soil}	0.28396	0.28396
Theta _w (water-filled soil porosity) L_{water}/L_{soil}	0.15	0.15
T (exposure interval) s	819936000	819936000
T (exposure interval) yr	26	26
U _m (mean annual wind speed) m/s	4.69	4.65
U _t (equivalent threshold value)	11.32	11.32
V (fraction of vegetative cover) unitless	0.5	0.5
VF _{ml} (volutization factor - mass limit) m ³ /kg	.	0

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Site-specific VISL Results Commercial Equation Inputs

* Inputted values different from Commercial defaults are highlighted.
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Variable	Commercial Air Default Value	Form-input Value
AF _{gw} (Attenuation Factor Groundwater) unitless	0.001	0.001
AF _{ss} (Attenuation Factor Sub-Slab) unitless	0.03	0.03
AT _w (averaging time - composite worker)	365	365
ED _w (exposure duration - composite worker) yr	25	25
EF _w (exposure frequency - composite worker) day/yr	250	250
ET _w (exposure time - composite worker) hr	8	8
THQ (target hazard quotient) unitless	0.1	0.1
LT (lifetime) yr	70	70
TR (target risk) unitless	1.0E-06	1.0E-06

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ($C_{vp} > C_{ia, Target?}$)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ($C_{hc} > C_{ia, Target?}$)	Target Indoor Air Concentration (TCR=1E-06 or THQ=0.1) $MIN(C_{ia,c}, C_{ia,nc})$ ($\mu\text{g}/\text{m}^3$)	Toxicity Basis
Benzene	71-43-2	Yes	Yes	Yes	Yes	1.57E+00	CA
Carbon Tetrachloride	56-23-5	Yes	Yes	Yes	Yes	2.04E+00	CA
Cumene	98-82-8	Yes	Yes	Yes	Yes	1.75E+02	NC
Dichloroethylene, 1,1-	75-35-4	Yes	Yes	Yes	Yes	8.76E+01	NC
Dichloroethylene, 1,2-cis-	156-59-2	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info		
Dichloroethylene, 1,2-trans-	156-60-5	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info		
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	4.91E+00	CA
Heptane, N-	142-82-5	Yes	Yes	Yes	Yes	1.75E+02	NC
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	3.07E+02	NC
Methyl tert-Butyl Ether (MTBE)	1634-04-4	Yes	Yes	Yes	Yes	4.72E+01	CA
Pentane, n-	109-66-0	Yes	Yes	Yes	Yes	4.38E+02	NC
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	3.61E-01	CA
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	1.75E+01	NC
Toluene	108-88-3	Yes	Yes	Yes	Yes	2.19E+03	NC
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes	8.76E-01	NC
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	2.63E+01	NC
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	2.63E+01	NC
Vinyl Chloride	75-01-4	Yes	Yes	Yes	Yes	2.79E+00	CA
Xylenes	1330-20-7	Yes	Yes	Yes	Yes	4.38E+01	NC

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=0.1) $C_{sg, Target}$ ($\mu\text{g}/\text{m}^3$)	Target Groundwater Concentration (TCR=1E-06 or THQ=0.1) $C_{gw, Target}$ ($\mu\text{g}/\text{L}$)	Is Target Groundwater Concentration < MCL? ($C_{gw} < \text{MCL}$?)	Pure Phase Vapor Concentration C_{vp} (25°C) ($\mu\text{g}/\text{m}^3$)	Maximum Groundwater Vapor Concentration C_{hc} ($\mu\text{g}/\text{m}^3$)	Temperature for Maximum Groundwater Vapor Concentration ($^\circ\text{C}$)
Benzene	5.24E+01	6.93E+00	No (5)	3.98E+08	4.06E+08	25
Carbon Tetrachloride	6.81E+01	1.81E+00	Yes (5)	9.51E+08	8.95E+08	25
Cumene	5.84E+03	3.73E+02	--	2.91E+07	2.88E+07	25
Dichloroethylene, 1,1-	2.92E+03	8.21E+01	No (7)	3.13E+09	2.58E+09	25
Dichloroethylene, 1,2-cis-				1.04E+09	1.07E+09	25
Dichloroethylene, 1,2-trans-				1.73E+09	1.73E+09	25
Ethylbenzene	1.64E+02	1.52E+01	Yes (700)	5.48E+07	5.44E+07	25
Heptane, N-	5.84E+03	2.14E+00	--	2.48E+08	2.78E+08	25
Hexane, N-	1.02E+04	4.17E+00	--	7.01E+08	6.99E+08	25
Methyl tert-Butyl Ether (MTBE)	1.57E+03	1.97E+03	--	1.19E+09	1.22E+09	25
Pentane, n-	1.46E+04	8.57E+00	--	1.99E+09	1.94E+09	25
Naphthalene	1.20E+01	2.01E+01	--	5.86E+05	5.58E+05	25
Tetrachloroethylene	5.84E+02	2.42E+01	No (5)	1.65E+08	1.49E+08	25
Toluene	7.30E+04	8.07E+03	No (1000)	1.41E+08	1.43E+08	25
Trichloroethylene	2.92E+01	2.18E+00	Yes (5)	4.88E+08	5.15E+08	25
Trimethylbenzene, 1,2,4-	8.76E+02	1.04E+02	--	1.36E+07	1.44E+07	25
Trimethylbenzene, 1,3,5-	8.76E+02	7.33E+01	--	1.60E+07	1.73E+07	25
Vinyl Chloride	9.29E+01	2.45E+00	No (2)	1.00E+10	1.00E+10	25
Xylenes	1.46E+03	1.62E+02	Yes (10000)	4.56E+07	2.87E+07	25

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR ($\mu\text{g}/\text{m}^3$) ⁻¹	IUR Ref	RfC (mg/m^3)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 $C_{\text{ia,c}}$ ($\mu\text{g}/\text{m}^3$)	Noncarcinogenic VISL THQ=0.1 $C_{\text{ia,nc}}$ ($\mu\text{g}/\text{m}^3$)
Benzene	1.20	CRC89	7.80E-06	I	3.00E-02	I	No	1.57E+00	1.31E+01
Carbon Tetrachloride			6.00E-06	I	1.00E-01	I	No	2.04E+00	4.38E+01
Cumene	0.90	CRC89			4.00E-01	I	No		1.75E+02
Dichloroethylene, 1,1-	6.50	CRC89			2.00E-01	I	No		8.76E+01
Dichloroethylene, 1,2-cis-	3.00	CRC89					No		
Dichloroethylene, 1,2-trans-	6.00	CRC89					No		
Ethylbenzene	0.80	CRC89	2.50E-06	C	1.00E+00	I	No	4.91E+00	4.38E+02
Heptane, N-	1.05	CRC89			4.00E-01	P	No		1.75E+02
Hexane, N-	1.10	CRC89			7.00E-01	I	No		3.07E+02
Methyl tert-Butyl Ether (MTBE)	2.00	YAWS	2.60E-07	C	3.00E+00	I	No	4.72E+01	1.31E+03
Pentane, n-	1.40	CRC89			1.00E+00	P	No		4.38E+02
Naphthalene	0.90	CRC89	3.40E-05	C	3.00E-03	I	No	3.61E-01	1.31E+00
Tetrachloroethylene			2.60E-07	I	4.00E-02	I	No	4.72E+01	1.75E+01
Toluene	1.10	CRC89			5.00E+00	I	No		2.19E+03
Trichloroethylene	8.00	CRC89	4.10E-06	I	2.00E-03	I	Mut	2.99E+00	8.76E-01
Trimethylbenzene, 1,2,4-	0.90	CRC89			6.00E-02	I	No		2.63E+01
Trimethylbenzene, 1,3,5-	1.00	CRC89			6.00E-02	I	No		2.63E+01
Vinyl Chloride	3.60	CRC89	4.40E-06	I	1.00E-01	I	Mut	2.79E+00	4.38E+01
Xylenes					1.00E-01	I	No		4.38E+01

Chemical	CAS Number	Site Sub-Slab and Exterior Soil Gas Concentration C_{sg} ($\mu\text{g}/\text{m}^3$)	Site Indoor Air Concentration C_{ia} ($\mu\text{g}/\text{m}^3$)	VI Carcinogenic Risk CDI ($\mu\text{g}/\text{m}^3$)	VI Carcinogenic Risk CR	VI Hazard CDI (mg/m^3)
Benzene	71-43-2	6.5	1.95E-01	1.59E-02	1.24E-07	4.45E-05
Carbon Tetrachloride	56-23-5					
Cumene	98-82-8					
Dichloroethylene, 1,1-	75-35-4					
Dichloroethylene, 1,2-cis-	156-59-2					
Dichloroethylene, 1,2-trans-	156-60-5					
Ethylbenzene	100-41-4	15	4.50E-01	3.67E-02	9.17E-08	1.03E-04
Heptane, N-	142-82-5	17	5.10E-01	4.16E-02		1.16E-04
Hexane, N-	110-54-3	24	7.20E-01	5.87E-02		1.64E-04
Methyl tert-Butyl Ether (MTBE)	1634-04-4					
Pentane, n-	109-66-0	34	1.02E+00	8.32E-02		2.33E-04
Naphthalene	91-20-3					
Tetrachloroethylene	127-18-4	74	2.22E+00	1.81E-01	4.71E-08	5.07E-04
Toluene	108-88-3	73	2.19E+00	1.79E-01		5.00E-04
Trichloroethylene	79-01-6					
Trimethylbenzene, 1,2,4-	95-63-6	13	3.90E-01	3.18E-02		8.90E-05
Trimethylbenzene, 1,3,5-	108-67-8	3.7	1.11E-01	9.05E-03		2.53E-05
Vinyl Chloride	75-01-4					
Xylenes	1330-20-7	75	2.25E+00	1.83E-01		5.14E-04
<i>*Sum</i>					2.63E-07	

Chemical	VI Hazard HQ	IUR (ug/m ³) ⁻¹	IUR Ref	Chronic RfC (mg/m ³)	RfC Ref	Temperature (°C)\ for Groundwater Vapor Concentration	Mutagen?
Benzene	1.48E-03	7.80E-06	I	3.00E-02	IRIS	25	No
Carbon Tetrachloride		6.00E-06	I	1.00E-01	IRIS	25	No
Cumene				4.00E-01	IRIS	25	No
Dichloroethylene, 1,1-				2.00E-01	IRIS	25	No
Dichloroethylene, 1,2-cis-						25	No
Dichloroethylene, 1,2-trans-						25	No
Ethylbenzene	1.03E-04	2.50E-06	C	1.00E+00	IRIS	25	No
Heptane, N-	2.91E-04			4.00E-01	PPRTV	25	No
Hexane, N-	2.35E-04			7.00E-01	IRIS	25	No
Methyl tert-Butyl Ether (MTBE)		2.60E-07	C	3.00E+00	IRIS	25	No
Pentane, n-	2.33E-04			1.00E+00	PPRTV	25	No
Naphthalene		3.40E-05	C	3.00E-03	IRIS	25	No
Tetrachloroethylene	1.27E-02	2.60E-07	I	4.00E-02	IRIS	25	No
Toluene	1.00E-04			5.00E+00	IRIS	25	No
Trichloroethylene		4.10E-06	I	2.00E-03	IRIS	25	Mut
Trimethylbenzene, 1,2,4-	1.48E-03			6.00E-02	IRIS	25	No
Trimethylbenzene, 1,3,5-	4.22E-04			6.00E-02	IRIS	25	No
Vinyl Chloride		4.40E-06	I	1.00E-01	IRIS	25	Mut
Xylenes	5.14E-03			1.00E-01	IRIS	25	No
<i>*Sum</i>	2.22E-02						

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref
Benzene	71-43-2	Yes	Yes	78.12	PHYSPROP	9.48E+01	PHYSPROP	1.79E+03	PHYSPROP
Carbon Tetrachloride	56-23-5	Yes	Yes	153.82	PHYSPROP	1.15E+02	PHYSPROP	7.93E+02	PHYSPROP
Cumene	98-82-8	Yes	Yes	120.20	PHYSPROP	4.50E+00	PHYSPROP	6.13E+01	PHYSPROP
Dichloroethylene, 1,1-	75-35-4	Yes	Yes	96.94	PHYSPROP	6.00E+02	PHYSPROP	2.42E+03	PHYSPROP
Dichloroethylene, 1,2-cis-	156-59-2	Yes	No	96.94	PHYSPROP	2.00E+02	PHYSPROP	6.41E+03	PHYSPROP
Dichloroethylene, 1,2-trans-	156-60-5	Yes	No	96.94	PHYSPROP	3.31E+02	EPI	4.52E+03	PHYSPROP
Ethylbenzene	100-41-4	Yes	Yes	106.17	PHYSPROP	9.60E+00	PHYSPROP	1.69E+02	PHYSPROP
Heptane, N-	142-82-5	Yes	Yes	100.21	PHYSPROP	4.60E+01	PHYSPROP	3.40E+00	PHYSPROP
Hexane, N-	110-54-3	Yes	Yes	86.18	PHYSPROP	1.51E+02	PHYSPROP	9.50E+00	PHYSPROP
Methyl tert-Butyl Ether (MTBE)	1634-04-4	Yes	Yes	88.15	PHYSPROP	2.50E+02	PHYSPROP	5.10E+04	PHYSPROP
Pentane, n-	109-66-0	Yes	Yes	72.15	PHYSPROP	5.14E+02	PHYSPROP	3.80E+01	PHYSPROP
Naphthalene	91-20-3	Yes	Yes	128.18	PHYSPROP	8.50E-02	PHYSPROP	3.10E+01	PHYSPROP
Tetrachloroethylene	127-18-4	Yes	Yes	165.83	PHYSPROP	1.85E+01	PHYSPROP	2.06E+02	PHYSPROP
Toluene	108-88-3	Yes	Yes	92.14	PHYSPROP	2.84E+01	PHYSPROP	5.26E+02	PHYSPROP
Trichloroethylene	79-01-6	Yes	Yes	131.39	PHYSPROP	6.90E+01	PHYSPROP	1.28E+03	PHYSPROP
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.20	PHYSPROP	2.10E+00	PHYSPROP	5.70E+01	PHYSPROP
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	120.20	PHYSPROP	2.48E+00	PHYSPROP	4.82E+01	PHYSPROP
Vinyl Chloride	75-01-4	Yes	Yes	62.50	PHYSPROP	2.98E+03	EPI	8.80E+03	PHYSPROP
Xylenes	1330-20-7	Yes	Yes	106.17	PHYSPROP	7.99E+00	PHYSPROP	1.06E+02	PHYSPROP

Chemical	MCL (ug/L)	HLC (atm-m ³ /mole)	Henry's Law Constant (unitless)	H' and HLC Ref	Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature TC (K)	TC Ref
Benzene	5	5.55E-03	2.27E-01	PHYSPROP	2.27E-01	353.15	PHYSPROP	5.62E+02	CRC89
Carbon Tetrachloride	5	2.76E-02	1.13E+00	PHYSPROP	1.13E+00	349.95	PHYSPROP	5.57E+02	CRC89
Cumene		1.15E-02	4.70E-01	PHYSPROP	4.70E-01	425.55	PHYSPROP	6.31E+02	CRC89
Dichloroethylene, 1,1-	7	2.61E-02	1.07E+00	PHYSPROP	1.07E+00	304.85	PHYSPROP	4.82E+02	YAWS
Dichloroethylene, 1,2-cis-	70	4.08E-03	1.67E-01	PHYSPROP	1.67E-01	333.25	PHYSPROP	5.36E+02	CRC89
Dichloroethylene, 1,2-trans-	100	9.38E-03	3.83E-01	PHYSPROP	3.83E-01	321.85	PHYSPROP	5.16E+02	CRC89
Ethylbenzene	700	7.88E-03	3.22E-01	PHYSPROP	3.22E-01	409.25	PHYSPROP	6.17E+02	CRC89
Heptane, N-		2.00E+00	8.18E+01	EPI	8.18E+01	371.65	PHYSPROP	5.40E+02	CRC89
Hexane, N-		1.80E+00	7.36E+01	EPI	7.36E+01	341.85	PHYSPROP	5.08E+02	CRC89
Methyl tert-Butyl Ether (MTBE)		5.87E-04	2.40E-02	PHYSPROP	2.40E-02	328.15	PHYSPROP	4.97E+02	CRC89
Pentane, n-		1.25E+00	5.11E+01	PHYSPROP	5.11E+01	309.15	PHYSPROP	4.70E+02	CRC89
Naphthalene		4.40E-04	1.80E-02	PHYSPROP	1.80E-02	491.05	PHYSPROP	7.48E+02	CRC89
Tetrachloroethylene	5	1.77E-02	7.24E-01	PHYSPROP	7.24E-01	394.45	PHYSPROP	6.20E+02	YAWS
Toluene	1000	6.64E-03	2.71E-01	PHYSPROP	2.71E-01	383.75	PHYSPROP	5.92E+02	CRC89
Trichloroethylene	5	9.85E-03	4.03E-01	PHYSPROP	4.03E-01	360.35	PHYSPROP	5.71E+02	YAWS
Trimethylbenzene, 1,2,4-		6.16E-03	2.52E-01	PHYSPROP	2.52E-01	442.45	PHYSPROP	6.49E+02	CRC89
Trimethylbenzene, 1,3,5-		8.77E-03	3.59E-01	PHYSPROP	3.59E-01	437.85	PHYSPROP	6.37E+02	CRC89
Vinyl Chloride	2	2.78E-02	1.14E+00	PHYSPROP	1.14E+00	259.85	PHYSPROP	4.25E+02	CRC89
Xylenes	10000	6.63E-03	2.71E-01	PHYSPROP	2.71E-01	411.65	PHYSPROP	6.20E+02	YAWS

Chemical	Enthalpy of vaporization at the normal boiling point $\Delta H_{v,b}$ (cal/mol)	$\Delta H_{v,b}$ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
Benzene	7342.26	CRC89	1.20	CRC89
Carbon Tetrachloride	7127.00	Weast		
Cumene	10335.30	TOXNET	0.90	CRC89
Dichloroethylene, 1,1-	6247.61	CRC89	6.50	CRC89
Dichloroethylene, 1,2-cis-	7217.97	CRC89	3.00	CRC89
Dichloroethylene, 1,2-trans-	6907.26	CRC89	6.00	CRC89
Ethylbenzene	8501.43	CRC89	0.80	CRC89
Heptane, N-	7593.21	CRC89	1.05	CRC89
Hexane, N-	6895.31	CRC89	1.10	CRC89
Methyl tert-Butyl Ether (MTBE)	6677.82	CRC89	2.00	YAWS
Pentane, n-	6155.06	TOXNET (converted)	1.40	CRC89
Naphthalene	10373.00	Weast	0.90	CRC89
Tetrachloroethylene	8288.00	Weast		
Toluene	7930.00	Weast	1.10	CRC89
Trichloroethylene	7505.00	Weast	8.00	CRC89
Trimethylbenzene, 1,2,4-	9368.80	TOXNET	0.90	CRC89
Trimethylbenzene, 1,3,5-	9321.00	TOXNET	1.00	CRC89
Vinyl Chloride	4971.32	CRC89	3.60	CRC89
Xylenes	8523.00	Weast		

Site-specific VISL Results Commercial Equation Inputs

* Inputted values different from Commercial defaults are highlighted.
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Variable	Commercial Air Default Value	Form-input Value
AF _{gw} (Attenuation Factor Groundwater) unitless	0.001	0.001
AF _{ss} (Attenuation Factor Sub-Slab) unitless	0.03	0.03
AT _w (averaging time - composite worker)	365	365
ED _w (exposure duration - composite worker) yr	25	25
EF _w (exposure frequency - composite worker) day/yr	250	250
ET _w (exposure time - composite worker) hr	8	8
THQ (target hazard quotient) unitless	0.1	0.1
LT (lifetime) yr	70	70
TR (target risk) unitless	1.0E-06	1.0E-06

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ($C_{vp} > C_{ia, Target?}$)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ($C_{hc} > C_{ia, Target?}$)	Target Indoor Air Concentration (TCR=1E-06 or THQ=0.1) $MIN(C_{ia,c}, C_{ia,nc})$ ($\mu\text{g}/\text{m}^3$)	Toxicity Basis
Benzene	71-43-2	Yes	Yes	Yes	Yes	1.57E+00	CA
Carbon Tetrachloride	56-23-5	Yes	Yes	Yes	Yes	2.04E+00	CA
Cumene	98-82-8	Yes	Yes	Yes	Yes	1.75E+02	NC
Dichloroethylene, 1,1-	75-35-4	Yes	Yes	Yes	Yes	8.76E+01	NC
Dichloroethylene, 1,2-cis-	156-59-2	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info		
Dichloroethylene, 1,2-trans-	156-60-5	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info		
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	4.91E+00	CA
Heptane, N-	142-82-5	Yes	Yes	Yes	Yes	1.75E+02	NC
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	3.07E+02	NC
Methyl tert-Butyl Ether (MTBE)	1634-04-4	Yes	Yes	Yes	Yes	4.72E+01	CA
Pentane, n-	109-66-0	Yes	Yes	Yes	Yes	4.38E+02	NC
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	3.61E-01	CA
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	1.75E+01	NC
Toluene	108-88-3	Yes	Yes	Yes	Yes	2.19E+03	NC
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes	8.76E-01	NC
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	2.63E+01	NC
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	2.63E+01	NC
Vinyl Chloride	75-01-4	Yes	Yes	Yes	Yes	2.79E+00	CA
Xylenes	1330-20-7	Yes	Yes	Yes	Yes	4.38E+01	NC

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=0.1) $C_{sg, Target}$ ($\mu\text{g}/\text{m}^3$)	Target Groundwater Concentration (TCR=1E-06 or THQ=0.1) $C_{gw, Target}$ ($\mu\text{g}/\text{L}$)	Is Target Groundwater Concentration < MCL? ($C_{gw} < \text{MCL}$?)	Pure Phase Vapor Concentration C_{vp} (25°C) ($\mu\text{g}/\text{m}^3$)	Maximum Groundwater Vapor Concentration C_{hc} ($\mu\text{g}/\text{m}^3$)	Temperature for Maximum Groundwater Vapor Concentration ($^\circ\text{C}$)
Benzene	5.24E+01	6.93E+00	No (5)	3.98E+08	4.06E+08	25
Carbon Tetrachloride	6.81E+01	1.81E+00	Yes (5)	9.51E+08	8.95E+08	25
Cumene	5.84E+03	3.73E+02	--	2.91E+07	2.88E+07	25
Dichloroethylene, 1,1-	2.92E+03	8.21E+01	No (7)	3.13E+09	2.58E+09	25
Dichloroethylene, 1,2-cis-				1.04E+09	1.07E+09	25
Dichloroethylene, 1,2-trans-				1.73E+09	1.73E+09	25
Ethylbenzene	1.64E+02	1.52E+01	Yes (700)	5.48E+07	5.44E+07	25
Heptane, N-	5.84E+03	2.14E+00	--	2.48E+08	2.78E+08	25
Hexane, N-	1.02E+04	4.17E+00	--	7.01E+08	6.99E+08	25
Methyl tert-Butyl Ether (MTBE)	1.57E+03	1.97E+03	--	1.19E+09	1.22E+09	25
Pentane, n-	1.46E+04	8.57E+00	--	1.99E+09	1.94E+09	25
Naphthalene	1.20E+01	2.01E+01	--	5.86E+05	5.58E+05	25
Tetrachloroethylene	5.84E+02	2.42E+01	No (5)	1.65E+08	1.49E+08	25
Toluene	7.30E+04	8.07E+03	No (1000)	1.41E+08	1.43E+08	25
Trichloroethylene	2.92E+01	2.18E+00	Yes (5)	4.88E+08	5.15E+08	25
Trimethylbenzene, 1,2,4-	8.76E+02	1.04E+02	--	1.36E+07	1.44E+07	25
Trimethylbenzene, 1,3,5-	8.76E+02	7.33E+01	--	1.60E+07	1.73E+07	25
Vinyl Chloride	9.29E+01	2.45E+00	No (2)	1.00E+10	1.00E+10	25
Xylenes	1.46E+03	1.62E+02	Yes (10000)	4.56E+07	2.87E+07	25

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR ($\mu\text{g}/\text{m}^3$) ⁻¹	IUR Ref	RfC (mg/m^3)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 $C_{\text{ia,c}}$ ($\mu\text{g}/\text{m}^3$)	Noncarcinogenic VISL THQ=0.1 $C_{\text{ia,nc}}$ ($\mu\text{g}/\text{m}^3$)
Benzene	1.20	CRC89	7.80E-06	I	3.00E-02	I	No	1.57E+00	1.31E+01
Carbon Tetrachloride			6.00E-06	I	1.00E-01	I	No	2.04E+00	4.38E+01
Cumene	0.90	CRC89			4.00E-01	I	No		1.75E+02
Dichloroethylene, 1,1-	6.50	CRC89			2.00E-01	I	No		8.76E+01
Dichloroethylene, 1,2-cis-	3.00	CRC89					No		
Dichloroethylene, 1,2-trans-	6.00	CRC89					No		
Ethylbenzene	0.80	CRC89	2.50E-06	C	1.00E+00	I	No	4.91E+00	4.38E+02
Heptane, N-	1.05	CRC89			4.00E-01	P	No		1.75E+02
Hexane, N-	1.10	CRC89			7.00E-01	I	No		3.07E+02
Methyl tert-Butyl Ether (MTBE)	2.00	YAWS	2.60E-07	C	3.00E+00	I	No	4.72E+01	1.31E+03
Pentane, n-	1.40	CRC89			1.00E+00	P	No		4.38E+02
Naphthalene	0.90	CRC89	3.40E-05	C	3.00E-03	I	No	3.61E-01	1.31E+00
Tetrachloroethylene			2.60E-07	I	4.00E-02	I	No	4.72E+01	1.75E+01
Toluene	1.10	CRC89			5.00E+00	I	No		2.19E+03
Trichloroethylene	8.00	CRC89	4.10E-06	I	2.00E-03	I	Mut	2.99E+00	8.76E-01
Trimethylbenzene, 1,2,4-	0.90	CRC89			6.00E-02	I	No		2.63E+01
Trimethylbenzene, 1,3,5-	1.00	CRC89			6.00E-02	I	No		2.63E+01
Vinyl Chloride	3.60	CRC89	4.40E-06	I	1.00E-01	I	Mut	2.79E+00	4.38E+01
Xylenes					1.00E-01	I	No		4.38E+01

Chemical	CAS Number	Site Sub-Slab and Exterior Soil Gas Concentration C_{sg} ($\mu\text{g}/\text{m}^3$)	Site Indoor Air Concentration C_{ia} ($\mu\text{g}/\text{m}^3$)	VI Carcinogenic Risk CDI ($\mu\text{g}/\text{m}^3$)	VI Carcinogenic Risk CR	VI Hazard CDI (mg/m^3)
Benzene	71-43-2	17	5.10E-01	4.16E-02	3.24E-07	1.16E-04
Carbon Tetrachloride	56-23-5					
Cumene	98-82-8	1.7	5.10E-02	4.16E-03		1.16E-05
Dichloroethylene, 1,1-	75-35-4					
Dichloroethylene, 1,2-cis-	156-59-2					
Dichloroethylene, 1,2-trans-	156-60-5					
Ethylbenzene	100-41-4	22	6.60E-01	5.38E-02	1.35E-07	1.51E-04
Heptane, N-	142-82-5	190	5.70E+00	4.65E-01		1.30E-03
Hexane, N-	110-54-3	270	8.10E+00	6.60E-01		1.85E-03
Methyl tert-Butyl Ether (MTBE)	1634-04-4					
Pentane, n-	109-66-0	380	1.14E+01	9.30E-01		2.60E-03
Naphthalene	91-20-3					
Tetrachloroethylene	127-18-4					
Toluene	108-88-3	97	2.91E+00	2.37E-01		6.64E-04
Trichloroethylene	79-01-6					
Trimethylbenzene, 1,2,4-	95-63-6	17	5.10E-01	4.16E-02		1.16E-04
Trimethylbenzene, 1,3,5-	108-67-8	5.2	1.56E-01	1.27E-02		3.56E-05
Vinyl Chloride	75-01-4					
Xylenes	1330-20-7	110	3.30E+00	2.69E-01		7.53E-04
<i>*Sum</i>					4.59E-07	

Chemical	VI Hazard HQ	IUR (ug/m ³) ⁻¹	IUR Ref	Chronic RfC (mg/m ³)	RfC Ref	Temperature (°C)\ for Groundwater Vapor Concentration	Mutagen?
Benzene	3.88E-03	7.80E-06	I	3.00E-02	IRIS	25	No
Carbon Tetrachloride		6.00E-06	I	1.00E-01	IRIS	25	No
Cumene	2.91E-05			4.00E-01	IRIS	25	No
Dichloroethylene, 1,1-				2.00E-01	IRIS	25	No
Dichloroethylene, 1,2-cis-						25	No
Dichloroethylene, 1,2-trans-						25	No
Ethylbenzene	1.51E-04	2.50E-06	C	1.00E+00	IRIS	25	No
Heptane, N-	3.25E-03			4.00E-01	PPRTV	25	No
Hexane, N-	2.64E-03			7.00E-01	IRIS	25	No
Methyl tert-Butyl Ether (MTBE)		2.60E-07	C	3.00E+00	IRIS	25	No
Pentane, n-	2.60E-03			1.00E+00	PPRTV	25	No
Naphthalene		3.40E-05	C	3.00E-03	IRIS	25	No
Tetrachloroethylene		2.60E-07	I	4.00E-02	IRIS	25	No
Toluene	1.33E-04			5.00E+00	IRIS	25	No
Trichloroethylene		4.10E-06	I	2.00E-03	IRIS	25	Mut
Trimethylbenzene, 1,2,4-	1.94E-03			6.00E-02	IRIS	25	No
Trimethylbenzene, 1,3,5-	5.94E-04			6.00E-02	IRIS	25	No
Vinyl Chloride		4.40E-06	I	1.00E-01	IRIS	25	Mut
Xylenes	7.53E-03			1.00E-01	IRIS	25	No
<i>*Sum</i>	2.28E-02						

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref
Benzene	71-43-2	Yes	Yes	78.12	PHYSPROP	9.48E+01	PHYSPROP	1.79E+03	PHYSPROP
Carbon Tetrachloride	56-23-5	Yes	Yes	153.82	PHYSPROP	1.15E+02	PHYSPROP	7.93E+02	PHYSPROP
Cumene	98-82-8	Yes	Yes	120.20	PHYSPROP	4.50E+00	PHYSPROP	6.13E+01	PHYSPROP
Dichloroethylene, 1,1-	75-35-4	Yes	Yes	96.94	PHYSPROP	6.00E+02	PHYSPROP	2.42E+03	PHYSPROP
Dichloroethylene, 1,2-cis-	156-59-2	Yes	No	96.94	PHYSPROP	2.00E+02	PHYSPROP	6.41E+03	PHYSPROP
Dichloroethylene, 1,2-trans-	156-60-5	Yes	No	96.94	PHYSPROP	3.31E+02	EPI	4.52E+03	PHYSPROP
Ethylbenzene	100-41-4	Yes	Yes	106.17	PHYSPROP	9.60E+00	PHYSPROP	1.69E+02	PHYSPROP
Heptane, N-	142-82-5	Yes	Yes	100.21	PHYSPROP	4.60E+01	PHYSPROP	3.40E+00	PHYSPROP
Hexane, N-	110-54-3	Yes	Yes	86.18	PHYSPROP	1.51E+02	PHYSPROP	9.50E+00	PHYSPROP
Methyl tert-Butyl Ether (MTBE)	1634-04-4	Yes	Yes	88.15	PHYSPROP	2.50E+02	PHYSPROP	5.10E+04	PHYSPROP
Pentane, n-	109-66-0	Yes	Yes	72.15	PHYSPROP	5.14E+02	PHYSPROP	3.80E+01	PHYSPROP
Naphthalene	91-20-3	Yes	Yes	128.18	PHYSPROP	8.50E-02	PHYSPROP	3.10E+01	PHYSPROP
Tetrachloroethylene	127-18-4	Yes	Yes	165.83	PHYSPROP	1.85E+01	PHYSPROP	2.06E+02	PHYSPROP
Toluene	108-88-3	Yes	Yes	92.14	PHYSPROP	2.84E+01	PHYSPROP	5.26E+02	PHYSPROP
Trichloroethylene	79-01-6	Yes	Yes	131.39	PHYSPROP	6.90E+01	PHYSPROP	1.28E+03	PHYSPROP
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.20	PHYSPROP	2.10E+00	PHYSPROP	5.70E+01	PHYSPROP
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	120.20	PHYSPROP	2.48E+00	PHYSPROP	4.82E+01	PHYSPROP
Vinyl Chloride	75-01-4	Yes	Yes	62.50	PHYSPROP	2.98E+03	EPI	8.80E+03	PHYSPROP
Xylenes	1330-20-7	Yes	Yes	106.17	PHYSPROP	7.99E+00	PHYSPROP	1.06E+02	PHYSPROP

Chemical	MCL (ug/L)	HLC (atm-m ³ /mole)	Henry's Law Constant (unitless)	H' and HLC Ref	Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature TC (K)	TC Ref
Benzene	5	5.55E-03	2.27E-01	PHYSPROP	2.27E-01	353.15	PHYSPROP	5.62E+02	CRC89
Carbon Tetrachloride	5	2.76E-02	1.13E+00	PHYSPROP	1.13E+00	349.95	PHYSPROP	5.57E+02	CRC89
Cumene		1.15E-02	4.70E-01	PHYSPROP	4.70E-01	425.55	PHYSPROP	6.31E+02	CRC89
Dichloroethylene, 1,1-	7	2.61E-02	1.07E+00	PHYSPROP	1.07E+00	304.85	PHYSPROP	4.82E+02	YAWS
Dichloroethylene, 1,2-cis-	70	4.08E-03	1.67E-01	PHYSPROP	1.67E-01	333.25	PHYSPROP	5.36E+02	CRC89
Dichloroethylene, 1,2-trans-	100	9.38E-03	3.83E-01	PHYSPROP	3.83E-01	321.85	PHYSPROP	5.16E+02	CRC89
Ethylbenzene	700	7.88E-03	3.22E-01	PHYSPROP	3.22E-01	409.25	PHYSPROP	6.17E+02	CRC89
Heptane, N-		2.00E+00	8.18E+01	EPI	8.18E+01	371.65	PHYSPROP	5.40E+02	CRC89
Hexane, N-		1.80E+00	7.36E+01	EPI	7.36E+01	341.85	PHYSPROP	5.08E+02	CRC89
Methyl tert-Butyl Ether (MTBE)		5.87E-04	2.40E-02	PHYSPROP	2.40E-02	328.15	PHYSPROP	4.97E+02	CRC89
Pentane, n-		1.25E+00	5.11E+01	PHYSPROP	5.11E+01	309.15	PHYSPROP	4.70E+02	CRC89
Naphthalene		4.40E-04	1.80E-02	PHYSPROP	1.80E-02	491.05	PHYSPROP	7.48E+02	CRC89
Tetrachloroethylene	5	1.77E-02	7.24E-01	PHYSPROP	7.24E-01	394.45	PHYSPROP	6.20E+02	YAWS
Toluene	1000	6.64E-03	2.71E-01	PHYSPROP	2.71E-01	383.75	PHYSPROP	5.92E+02	CRC89
Trichloroethylene	5	9.85E-03	4.03E-01	PHYSPROP	4.03E-01	360.35	PHYSPROP	5.71E+02	YAWS
Trimethylbenzene, 1,2,4-		6.16E-03	2.52E-01	PHYSPROP	2.52E-01	442.45	PHYSPROP	6.49E+02	CRC89
Trimethylbenzene, 1,3,5-		8.77E-03	3.59E-01	PHYSPROP	3.59E-01	437.85	PHYSPROP	6.37E+02	CRC89
Vinyl Chloride	2	2.78E-02	1.14E+00	PHYSPROP	1.14E+00	259.85	PHYSPROP	4.25E+02	CRC89
Xylenes	10000	6.63E-03	2.71E-01	PHYSPROP	2.71E-01	411.65	PHYSPROP	6.20E+02	YAWS

Chemical	Enthalpy of vaporization at the normal boiling point $\Delta H_{v,b}$ \ (cal/mol)	$\Delta H_{v,b}$ \ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
Benzene	7342.26	CRC89	1.20	CRC89
Carbon Tetrachloride	7127.00	Weast		
Cumene	10335.30	TOXNET	0.90	CRC89
Dichloroethylene, 1,1-	6247.61	CRC89	6.50	CRC89
Dichloroethylene, 1,2-cis-	7217.97	CRC89	3.00	CRC89
Dichloroethylene, 1,2-trans-	6907.26	CRC89	6.00	CRC89
Ethylbenzene	8501.43	CRC89	0.80	CRC89
Heptane, N-	7593.21	CRC89	1.05	CRC89
Hexane, N-	6895.31	CRC89	1.10	CRC89
Methyl tert-Butyl Ether (MTBE)	6677.82	CRC89	2.00	YAWS
Pentane, n-	6155.06	TOXNET (converted)	1.40	CRC89
Naphthalene	10373.00	Weast	0.90	CRC89
Tetrachloroethylene	8288.00	Weast		
Toluene	7930.00	Weast	1.10	CRC89
Trichloroethylene	7505.00	Weast	8.00	CRC89
Trimethylbenzene, 1,2,4-	9368.80	TOXNET	0.90	CRC89
Trimethylbenzene, 1,3,5-	9321.00	TOXNET	1.00	CRC89
Vinyl Chloride	4971.32	CRC89	3.60	CRC89
Xylenes	8523.00	Weast		

Site-specific VISL Results

Commercial Equation Inputs

* Inputted values different from Commercial defaults are highlighted.
Output generated 10AUG2020:22:54:41

Variable	Commercial Air Default Value	Form-input Value
AF _{gw} (Attenuation Factor Groundwater) unitless	0.001	0.001
AF _{ss} (Attenuation Factor Sub-Slab) unitless	0.03	0.03
AT _w (averaging time - composite worker)	365	365
ED _w (exposure duration - composite worker) yr	25	25
EF _w (exposure frequency - composite worker) day/yr	250	250
ET _w (exposure time - composite worker) hr	8	8
THQ (target hazard quotient) unitless	0.1	0.1
LT (lifetime) yr	70	70
TR (target risk) unitless	1.0E-06	1.0E-06

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ($C_{vp} > C_{ia, Target?}$)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ($C_{hc} > C_{ia, Target?}$)	Target Indoor Air Concentration (TCR=1E-06 or THQ=0.1) $MIN(C_{ia,c}, C_{ia,nc})$ ($\mu\text{g}/\text{m}^3$)	Toxicity Basis
Benzene	71-43-2	Yes	Yes	Yes	Yes	1.57E+00	CA
Carbon Tetrachloride	56-23-5	Yes	Yes	Yes	Yes	2.04E+00	CA
Cumene	98-82-8	Yes	Yes	Yes	Yes	1.75E+02	NC
Dichloroethylene, 1,1-	75-35-4	Yes	Yes	Yes	Yes	8.76E+01	NC
Dichloroethylene, 1,2-cis-	156-59-2	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info		
Dichloroethylene, 1,2-trans-	156-60-5	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info		
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	4.91E+00	CA
Heptane, N-	142-82-5	Yes	Yes	Yes	Yes	1.75E+02	NC
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	3.07E+02	NC
Methyl tert-Butyl Ether (MTBE)	1634-04-4	Yes	Yes	Yes	Yes	4.72E+01	CA
Pentane, n-	109-66-0	Yes	Yes	Yes	Yes	4.38E+02	NC
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	3.61E-01	CA
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	1.75E+01	NC
Toluene	108-88-3	Yes	Yes	Yes	Yes	2.19E+03	NC
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes	8.76E-01	NC
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	2.63E+01	NC
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	2.63E+01	NC
Vinyl Chloride	75-01-4	Yes	Yes	Yes	Yes	2.79E+00	CA
Xylenes	1330-20-7	Yes	Yes	Yes	Yes	4.38E+01	NC

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=0.1) $C_{sg, Target}$ ($\mu\text{g}/\text{m}^3$)	Target Groundwater Concentration (TCR=1E-06 or THQ=0.1) $C_{gw, Target}$ ($\mu\text{g}/\text{L}$)	Is Target Groundwater Concentration < MCL? ($C_{gw} < \text{MCL}$?)	Pure Phase Vapor Concentration C_{vp} (25°C) ($\mu\text{g}/\text{m}^3$)	Maximum Groundwater Vapor Concentration C_{hc} ($\mu\text{g}/\text{m}^3$)	Temperature for Maximum Groundwater Vapor Concentration ($^\circ\text{C}$)
Benzene	5.24E+01	6.93E+00	No (5)	3.98E+08	4.06E+08	25
Carbon Tetrachloride	6.81E+01	1.81E+00	Yes (5)	9.51E+08	8.95E+08	25
Cumene	5.84E+03	3.73E+02	--	2.91E+07	2.88E+07	25
Dichloroethylene, 1,1-	2.92E+03	8.21E+01	No (7)	3.13E+09	2.58E+09	25
Dichloroethylene, 1,2-cis-				1.04E+09	1.07E+09	25
Dichloroethylene, 1,2-trans-				1.73E+09	1.73E+09	25
Ethylbenzene	1.64E+02	1.52E+01	Yes (700)	5.48E+07	5.44E+07	25
Heptane, N-	5.84E+03	2.14E+00	--	2.48E+08	2.78E+08	25
Hexane, N-	1.02E+04	4.17E+00	--	7.01E+08	6.99E+08	25
Methyl tert-Butyl Ether (MTBE)	1.57E+03	1.97E+03	--	1.19E+09	1.22E+09	25
Pentane, n-	1.46E+04	8.57E+00	--	1.99E+09	1.94E+09	25
Naphthalene	1.20E+01	2.01E+01	--	5.86E+05	5.58E+05	25
Tetrachloroethylene	5.84E+02	2.42E+01	No (5)	1.65E+08	1.49E+08	25
Toluene	7.30E+04	8.07E+03	No (1000)	1.41E+08	1.43E+08	25
Trichloroethylene	2.92E+01	2.18E+00	Yes (5)	4.88E+08	5.15E+08	25
Trimethylbenzene, 1,2,4-	8.76E+02	1.04E+02	--	1.36E+07	1.44E+07	25
Trimethylbenzene, 1,3,5-	8.76E+02	7.33E+01	--	1.60E+07	1.73E+07	25
Vinyl Chloride	9.29E+01	2.45E+00	No (2)	1.00E+10	1.00E+10	25
Xylenes	1.46E+03	1.62E+02	Yes (10000)	4.56E+07	2.87E+07	25

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR (ug/m ³) ⁻¹	IUR Ref	RfC (mg/m ³)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 C _{ia,c} (ug/m ³)	Noncarcinogenic VISL THQ=0.1 C _{ia,nc} (ug/m ³)
Benzene	1.20	CRC89	7.80E-06	I	3.00E-02	I	No	1.57E+00	1.31E+01
Carbon Tetrachloride			6.00E-06	I	1.00E-01	I	No	2.04E+00	4.38E+01
Cumene	0.90	CRC89			4.00E-01	I	No		1.75E+02
Dichloroethylene, 1,1-	6.50	CRC89			2.00E-01	I	No		8.76E+01
Dichloroethylene, 1,2-cis-	3.00	CRC89					No		
Dichloroethylene, 1,2-trans-	6.00	CRC89					No		
Ethylbenzene	0.80	CRC89	2.50E-06	C	1.00E+00	I	No	4.91E+00	4.38E+02
Heptane, N-	1.05	CRC89			4.00E-01	P	No		1.75E+02
Hexane, N-	1.10	CRC89			7.00E-01	I	No		3.07E+02
Methyl tert-Butyl Ether (MTBE)	2.00	YAWS	2.60E-07	C	3.00E+00	I	No	4.72E+01	1.31E+03
Pentane, n-	1.40	CRC89			1.00E+00	P	No		4.38E+02
Naphthalene	0.90	CRC89	3.40E-05	C	3.00E-03	I	No	3.61E-01	1.31E+00
Tetrachloroethylene			2.60E-07	I	4.00E-02	I	No	4.72E+01	1.75E+01
Toluene	1.10	CRC89			5.00E+00	I	No		2.19E+03
Trichloroethylene	8.00	CRC89	4.10E-06	I	2.00E-03	I	Mut	2.99E+00	8.76E-01
Trimethylbenzene, 1,2,4-	0.90	CRC89			6.00E-02	I	No		2.63E+01
Trimethylbenzene, 1,3,5-	1.00	CRC89			6.00E-02	I	No		2.63E+01
Vinyl Chloride	3.60	CRC89	4.40E-06	I	1.00E-01	I	Mut	2.79E+00	4.38E+01
Xylenes					1.00E-01	I	No		4.38E+01

Chemical	CAS Number	Site Indoor Air Concentration C_{ia} ($\mu\text{g}/\text{m}^3$)	VI Carcinogenic Risk CDI ($\mu\text{g}/\text{m}^3$)	VI Carcinogenic Risk CR	VI Hazard CDI (mg/m^3)
Benzene	71-43-2				
Carbon Tetrachloride	56-23-5				
Cumene	98-82-8				
Dichloroethylene, 1,1-	75-35-4	1.26E+00	1.03E-01		2.88E-04
Dichloroethylene, 1,2-cis-	156-59-2				
Dichloroethylene, 1,2-trans-	156-60-5				
Ethylbenzene	100-41-4				
Heptane, N-	142-82-5	2.49E+00	2.03E-01		5.68E-04
Hexane, N-	110-54-3	8.70E+00	7.09E-01		1.99E-03
Methyl tert-Butyl Ether (MTBE)	1634-04-4				
Pentane, n-	109-66-0	2.43E+01	1.98E+00		5.55E-03
Naphthalene	91-20-3				
Tetrachloroethylene	127-18-4				
Toluene	108-88-3	2.67E+00	2.18E-01		6.10E-04
Trichloroethylene	79-01-6	7.50E+00	6.12E-01	2.51E-06	1.71E-03
Trimethylbenzene, 1,2,4-	95-63-6				
Trimethylbenzene, 1,3,5-	108-67-8				
Vinyl Chloride	75-01-4	2.22E+02	1.81E+01	7.96E-05	5.07E-02
Xylenes	1330-20-7				
<i>*Sum</i>				8.22E-05	

Chemical	VI Hazard HQ	IUR (ug/m ³) ⁻¹	IUR Ref	Chronic RfC (mg/m ³)	RfC Ref	Temperature (°C)\ for Groundwater Vapor Concentration	Mutagen?
Benzene		7.80E-06	I	3.00E-02	IRIS	25	No
Carbon Tetrachloride		6.00E-06	I	1.00E-01	IRIS	25	No
Cumene				4.00E-01	IRIS	25	No
Dichloroethylene, 1,1-	1.44E-03			2.00E-01	IRIS	25	No
Dichloroethylene, 1,2-cis-						25	No
Dichloroethylene, 1,2-trans-						25	No
Ethylbenzene		2.50E-06	C	1.00E+00	IRIS	25	No
Heptane, N-	1.42E-03			4.00E-01	PPRTV	25	No
Hexane, N-	2.84E-03			7.00E-01	IRIS	25	No
Methyl tert-Butyl Ether (MTBE)		2.60E-07	C	3.00E+00	IRIS	25	No
Pentane, n-	5.55E-03			1.00E+00	PPRTV	25	No
Naphthalene		3.40E-05	C	3.00E-03	IRIS	25	No
Tetrachloroethylene		2.60E-07	I	4.00E-02	IRIS	25	No
Toluene	1.22E-04			5.00E+00	IRIS	25	No
Trichloroethylene	8.56E-01	4.10E-06	I	2.00E-03	IRIS	25	Mut
Trimethylbenzene, 1,2,4-				6.00E-02	IRIS	25	No
Trimethylbenzene, 1,3,5-				6.00E-02	IRIS	25	No
Vinyl Chloride	5.07E-01	4.40E-06	I	1.00E-01	IRIS	25	Mut
Xylenes				1.00E-01	IRIS	25	No
<i>*Sum</i>	<i>1.37E+00</i>						

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref
Benzene	71-43-2	Yes	Yes	78.12	PHYSPROP	9.48E+01	PHYSPROP	1.79E+03	PHYSPROP
Carbon Tetrachloride	56-23-5	Yes	Yes	153.82	PHYSPROP	1.15E+02	PHYSPROP	7.93E+02	PHYSPROP
Cumene	98-82-8	Yes	Yes	120.20	PHYSPROP	4.50E+00	PHYSPROP	6.13E+01	PHYSPROP
Dichloroethylene, 1,1-	75-35-4	Yes	Yes	96.94	PHYSPROP	6.00E+02	PHYSPROP	2.42E+03	PHYSPROP
Dichloroethylene, 1,2-cis-	156-59-2	Yes	No	96.94	PHYSPROP	2.00E+02	PHYSPROP	6.41E+03	PHYSPROP
Dichloroethylene, 1,2-trans-	156-60-5	Yes	No	96.94	PHYSPROP	3.31E+02	EPI	4.52E+03	PHYSPROP
Ethylbenzene	100-41-4	Yes	Yes	106.17	PHYSPROP	9.60E+00	PHYSPROP	1.69E+02	PHYSPROP
Heptane, N-	142-82-5	Yes	Yes	100.21	PHYSPROP	4.60E+01	PHYSPROP	3.40E+00	PHYSPROP
Hexane, N-	110-54-3	Yes	Yes	86.18	PHYSPROP	1.51E+02	PHYSPROP	9.50E+00	PHYSPROP
Methyl tert-Butyl Ether (MTBE)	1634-04-4	Yes	Yes	88.15	PHYSPROP	2.50E+02	PHYSPROP	5.10E+04	PHYSPROP
Pentane, n-	109-66-0	Yes	Yes	72.15	PHYSPROP	5.14E+02	PHYSPROP	3.80E+01	PHYSPROP
Naphthalene	91-20-3	Yes	Yes	128.18	PHYSPROP	8.50E-02	PHYSPROP	3.10E+01	PHYSPROP
Tetrachloroethylene	127-18-4	Yes	Yes	165.83	PHYSPROP	1.85E+01	PHYSPROP	2.06E+02	PHYSPROP
Toluene	108-88-3	Yes	Yes	92.14	PHYSPROP	2.84E+01	PHYSPROP	5.26E+02	PHYSPROP
Trichloroethylene	79-01-6	Yes	Yes	131.39	PHYSPROP	6.90E+01	PHYSPROP	1.28E+03	PHYSPROP
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.20	PHYSPROP	2.10E+00	PHYSPROP	5.70E+01	PHYSPROP
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	120.20	PHYSPROP	2.48E+00	PHYSPROP	4.82E+01	PHYSPROP
Vinyl Chloride	75-01-4	Yes	Yes	62.50	PHYSPROP	2.98E+03	EPI	8.80E+03	PHYSPROP
Xylenes	1330-20-7	Yes	Yes	106.17	PHYSPROP	7.99E+00	PHYSPROP	1.06E+02	PHYSPROP

Chemical	MCL (ug/L)	HLC (atm-m ³ /mole)	Henry's Law Constant (unitless)	H' and HLC Ref	Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature TC (K)	TC Ref
Benzene	5	5.55E-03	2.27E-01	PHYSPROP	2.27E-01	353.15	PHYSPROP	5.62E+02	CRC89
Carbon Tetrachloride	5	2.76E-02	1.13E+00	PHYSPROP	1.13E+00	349.95	PHYSPROP	5.57E+02	CRC89
Cumene		1.15E-02	4.70E-01	PHYSPROP	4.70E-01	425.55	PHYSPROP	6.31E+02	CRC89
Dichloroethylene, 1,1-	7	2.61E-02	1.07E+00	PHYSPROP	1.07E+00	304.85	PHYSPROP	4.82E+02	YAWS
Dichloroethylene, 1,2-cis-	70	4.08E-03	1.67E-01	PHYSPROP	1.67E-01	333.25	PHYSPROP	5.36E+02	CRC89
Dichloroethylene, 1,2-trans-	100	9.38E-03	3.83E-01	PHYSPROP	3.83E-01	321.85	PHYSPROP	5.16E+02	CRC89
Ethylbenzene	700	7.88E-03	3.22E-01	PHYSPROP	3.22E-01	409.25	PHYSPROP	6.17E+02	CRC89
Heptane, N-		2.00E+00	8.18E+01	EPI	8.18E+01	371.65	PHYSPROP	5.40E+02	CRC89
Hexane, N-		1.80E+00	7.36E+01	EPI	7.36E+01	341.85	PHYSPROP	5.08E+02	CRC89
Methyl tert-Butyl Ether (MTBE)		5.87E-04	2.40E-02	PHYSPROP	2.40E-02	328.15	PHYSPROP	4.97E+02	CRC89
Pentane, n-		1.25E+00	5.11E+01	PHYSPROP	5.11E+01	309.15	PHYSPROP	4.70E+02	CRC89
Naphthalene		4.40E-04	1.80E-02	PHYSPROP	1.80E-02	491.05	PHYSPROP	7.48E+02	CRC89
Tetrachloroethylene	5	1.77E-02	7.24E-01	PHYSPROP	7.24E-01	394.45	PHYSPROP	6.20E+02	YAWS
Toluene	1000	6.64E-03	2.71E-01	PHYSPROP	2.71E-01	383.75	PHYSPROP	5.92E+02	CRC89
Trichloroethylene	5	9.85E-03	4.03E-01	PHYSPROP	4.03E-01	360.35	PHYSPROP	5.71E+02	YAWS
Trimethylbenzene, 1,2,4-		6.16E-03	2.52E-01	PHYSPROP	2.52E-01	442.45	PHYSPROP	6.49E+02	CRC89
Trimethylbenzene, 1,3,5-		8.77E-03	3.59E-01	PHYSPROP	3.59E-01	437.85	PHYSPROP	6.37E+02	CRC89
Vinyl Chloride	2	2.78E-02	1.14E+00	PHYSPROP	1.14E+00	259.85	PHYSPROP	4.25E+02	CRC89
Xylenes	10000	6.63E-03	2.71E-01	PHYSPROP	2.71E-01	411.65	PHYSPROP	6.20E+02	YAWS

Chemical	Enthalpy of vaporization at the normal boiling point $\Delta H_{v,b}$ (cal/mol)	$\Delta H_{v,b}$ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
Benzene	7342.26	CRC89	1.20	CRC89
Carbon Tetrachloride	7127.00	Weast		
Cumene	10335.30	TOXNET	0.90	CRC89
Dichloroethylene, 1,1-	6247.61	CRC89	6.50	CRC89
Dichloroethylene, 1,2-cis-	7217.97	CRC89	3.00	CRC89
Dichloroethylene, 1,2-trans-	6907.26	CRC89	6.00	CRC89
Ethylbenzene	8501.43	CRC89	0.80	CRC89
Heptane, N-	7593.21	CRC89	1.05	CRC89
Hexane, N-	6895.31	CRC89	1.10	CRC89
Methyl tert-Butyl Ether (MTBE)	6677.82	CRC89	2.00	YAWS
Pentane, n-	6155.06	TOXNET (converted)	1.40	CRC89
Naphthalene	10373.00	Weast	0.90	CRC89
Tetrachloroethylene	8288.00	Weast		
Toluene	7930.00	Weast	1.10	CRC89
Trichloroethylene	7505.00	Weast	8.00	CRC89
Trimethylbenzene, 1,2,4-	9368.80	TOXNET	0.90	CRC89
Trimethylbenzene, 1,3,5-	9321.00	TOXNET	1.00	CRC89
Vinyl Chloride	4971.32	CRC89	3.60	CRC89
Xylenes	8523.00	Weast		

Site-specific VISL Results Commercial Equation Inputs

* Inputted values different from Commercial defaults are highlighted.
Output generated 10AUG2020:22:57:06

Variable	Commercial Air Default Value	Form-input Value
AF _{gw} (Attenuation Factor Groundwater) unitless	0.001	0.001
AF _{ss} (Attenuation Factor Sub-Slab) unitless	0.03	0.03
AT _w (averaging time - composite worker)	365	365
ED _w (exposure duration - composite worker) yr	25	25
EF _w (exposure frequency - composite worker) day/yr	250	250
ET _w (exposure time - composite worker) hr	8	8
THQ (target hazard quotient) unitless	0.1	0.1
LT (lifetime) yr	70	70
TR (target risk) unitless	1.0E-06	1.0E-06

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ($C_{vp} > C_{ia, Target?}$)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ($C_{hc} > C_{ia, Target?}$)	Target Indoor Air Concentration (TCR=1E-06 or THQ=0.1) $MIN(C_{ia,c}, C_{ia,nc})$ ($\mu\text{g}/\text{m}^3$)	Toxicity Basis
Benzene	71-43-2	Yes	Yes	Yes	Yes	1.57E+00	CA
Carbon Tetrachloride	56-23-5	Yes	Yes	Yes	Yes	2.04E+00	CA
Cumene	98-82-8	Yes	Yes	Yes	Yes	1.75E+02	NC
Dichloroethylene, 1,1-	75-35-4	Yes	Yes	Yes	Yes	8.76E+01	NC
Dichloroethylene, 1,2-cis-	156-59-2	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info		
Dichloroethylene, 1,2-trans-	156-60-5	Yes	No	No Inhal. Tox. Info	No Inhal. Tox. Info		
Ethylbenzene	100-41-4	Yes	Yes	Yes	Yes	4.91E+00	CA
Heptane, N-	142-82-5	Yes	Yes	Yes	Yes	1.75E+02	NC
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	3.07E+02	NC
Methyl tert-Butyl Ether (MTBE)	1634-04-4	Yes	Yes	Yes	Yes	4.72E+01	CA
Pentane, n-	109-66-0	Yes	Yes	Yes	Yes	4.38E+02	NC
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	3.61E-01	CA
Tetrachloroethylene	127-18-4	Yes	Yes	Yes	Yes	1.75E+01	NC
Toluene	108-88-3	Yes	Yes	Yes	Yes	2.19E+03	NC
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes	8.76E-01	NC
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	2.63E+01	NC
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	2.63E+01	NC
Vinyl Chloride	75-01-4	Yes	Yes	Yes	Yes	2.79E+00	CA
Xylenes	1330-20-7	Yes	Yes	Yes	Yes	4.38E+01	NC

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-06 or THQ=0.1) $C_{sg, Target}$ ($\mu\text{g}/\text{m}^3$)	Target Groundwater Concentration (TCR=1E-06 or THQ=0.1) $C_{gw, Target}$ ($\mu\text{g}/\text{L}$)	Is Target Groundwater Concentration < MCL? ($C_{gw} < \text{MCL}$?)	Pure Phase Vapor Concentration C_{vp} (25°C) ($\mu\text{g}/\text{m}^3$)	Maximum Groundwater Vapor Concentration C_{hc} ($\mu\text{g}/\text{m}^3$)	Temperature for Maximum Groundwater Vapor Concentration ($^\circ\text{C}$)
Benzene	5.24E+01	6.93E+00	No (5)	3.98E+08	4.06E+08	25
Carbon Tetrachloride	6.81E+01	1.81E+00	Yes (5)	9.51E+08	8.95E+08	25
Cumene	5.84E+03	3.73E+02	--	2.91E+07	2.88E+07	25
Dichloroethylene, 1,1-	2.92E+03	8.21E+01	No (7)	3.13E+09	2.58E+09	25
Dichloroethylene, 1,2-cis-				1.04E+09	1.07E+09	25
Dichloroethylene, 1,2-trans-				1.73E+09	1.73E+09	25
Ethylbenzene	1.64E+02	1.52E+01	Yes (700)	5.48E+07	5.44E+07	25
Heptane, N-	5.84E+03	2.14E+00	--	2.48E+08	2.78E+08	25
Hexane, N-	1.02E+04	4.17E+00	--	7.01E+08	6.99E+08	25
Methyl tert-Butyl Ether (MTBE)	1.57E+03	1.97E+03	--	1.19E+09	1.22E+09	25
Pentane, n-	1.46E+04	8.57E+00	--	1.99E+09	1.94E+09	25
Naphthalene	1.20E+01	2.01E+01	--	5.86E+05	5.58E+05	25
Tetrachloroethylene	5.84E+02	2.42E+01	No (5)	1.65E+08	1.49E+08	25
Toluene	7.30E+04	8.07E+03	No (1000)	1.41E+08	1.43E+08	25
Trichloroethylene	2.92E+01	2.18E+00	Yes (5)	4.88E+08	5.15E+08	25
Trimethylbenzene, 1,2,4-	8.76E+02	1.04E+02	--	1.36E+07	1.44E+07	25
Trimethylbenzene, 1,3,5-	8.76E+02	7.33E+01	--	1.60E+07	1.73E+07	25
Vinyl Chloride	9.29E+01	2.45E+00	No (2)	1.00E+10	1.00E+10	25
Xylenes	1.46E+03	1.62E+02	Yes (10000)	4.56E+07	2.87E+07	25

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR ($\mu\text{g}/\text{m}^3$) ⁻¹	IUR Ref	RfC (mg/m^3)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-06 $C_{\text{ia,c}}$ ($\mu\text{g}/\text{m}^3$)	Noncarcinogenic VISL THQ=0.1 $C_{\text{ia,nc}}$ ($\mu\text{g}/\text{m}^3$)
Benzene	1.20	CRC89	7.80E-06	I	3.00E-02	I	No	1.57E+00	1.31E+01
Carbon Tetrachloride			6.00E-06	I	1.00E-01	I	No	2.04E+00	4.38E+01
Cumene	0.90	CRC89			4.00E-01	I	No		1.75E+02
Dichloroethylene, 1,1-	6.50	CRC89			2.00E-01	I	No		8.76E+01
Dichloroethylene, 1,2-cis-	3.00	CRC89					No		
Dichloroethylene, 1,2-trans-	6.00	CRC89					No		
Ethylbenzene	0.80	CRC89	2.50E-06	C	1.00E+00	I	No	4.91E+00	4.38E+02
Heptane, N-	1.05	CRC89			4.00E-01	P	No		1.75E+02
Hexane, N-	1.10	CRC89			7.00E-01	I	No		3.07E+02
Methyl tert-Butyl Ether (MTBE)	2.00	YAWS	2.60E-07	C	3.00E+00	I	No	4.72E+01	1.31E+03
Pentane, n-	1.40	CRC89			1.00E+00	P	No		4.38E+02
Naphthalene	0.90	CRC89	3.40E-05	C	3.00E-03	I	No	3.61E-01	1.31E+00
Tetrachloroethylene			2.60E-07	I	4.00E-02	I	No	4.72E+01	1.75E+01
Toluene	1.10	CRC89			5.00E+00	I	No		2.19E+03
Trichloroethylene	8.00	CRC89	4.10E-06	I	2.00E-03	I	Mut	2.99E+00	8.76E-01
Trimethylbenzene, 1,2,4-	0.90	CRC89			6.00E-02	I	No		2.63E+01
Trimethylbenzene, 1,3,5-	1.00	CRC89			6.00E-02	I	No		2.63E+01
Vinyl Chloride	3.60	CRC89	4.40E-06	I	1.00E-01	I	Mut	2.79E+00	4.38E+01
Xylenes					1.00E-01	I	No		4.38E+01

Chemical	CAS Number	Site Sub-Slab and Exterior Soil Gas Concentration C_{sg} ($\mu\text{g}/\text{m}^3$)	Site Indoor Air Concentration C_{ia} ($\mu\text{g}/\text{m}^3$)	VI Carcinogenic Risk CDI ($\mu\text{g}/\text{m}^3$)	VI Carcinogenic Risk CR	VI Hazard CDI (mg/m^3)
Benzene	71-43-2	6.4	1.92E-01	1.57E-02	1.22E-07	4.38E-05
Carbon Tetrachloride	56-23-5					
Cumene	98-82-8					
Dichloroethylene, 1,1-	75-35-4					
Dichloroethylene, 1,2-cis-	156-59-2	9.6				
Dichloroethylene, 1,2-trans-	156-60-5	2.2				
Ethylbenzene	100-41-4	4.8	1.44E-01	1.17E-02	2.94E-08	3.29E-05
Heptane, N-	142-82-5	16	4.80E-01	3.91E-02		1.10E-04
Hexane, N-	110-54-3	36	1.08E+00	8.81E-02		2.47E-04
Methyl tert-Butyl Ether (MTBE)	1634-04-4					
Pentane, n-	109-66-0	150	4.50E+00	3.67E-01		1.03E-03
Naphthalene	91-20-3					
Tetrachloroethylene	127-18-4					
Toluene	108-88-3	42	1.26E+00	1.03E-01		2.88E-04
Trichloroethylene	79-01-6	1.9	5.70E-02	4.65E-03	1.91E-08	1.30E-05
Trimethylbenzene, 1,2,4-	95-63-6					
Trimethylbenzene, 1,3,5-	108-67-8					
Vinyl Chloride	75-01-4	44	1.32E+00	1.08E-01	4.74E-07	3.01E-04
Xylenes	1330-20-7	13	3.90E-01	3.18E-02		8.90E-05
<i>*Sum</i>					<i>6.44E-07</i>	

Chemical	VI Hazard HQ	IUR (ug/m ³) ⁻¹	IUR Ref	Chronic RfC (mg/m ³)	RfC Ref	Temperature (°C)\ for Groundwater Vapor Concentration	Mutagen?
Benzene	1.46E-03	7.80E-06	I	3.00E-02	IRIS	25	No
Carbon Tetrachloride		6.00E-06	I	1.00E-01	IRIS	25	No
Cumene				4.00E-01	IRIS	25	No
Dichloroethylene, 1,1-				2.00E-01	IRIS	25	No
Dichloroethylene, 1,2-cis-						25	No
Dichloroethylene, 1,2-trans-						25	No
Ethylbenzene	3.29E-05	2.50E-06	C	1.00E+00	IRIS	25	No
Heptane, N-	2.74E-04			4.00E-01	PPRTV	25	No
Hexane, N-	3.52E-04			7.00E-01	IRIS	25	No
Methyl tert-Butyl Ether (MTBE)		2.60E-07	C	3.00E+00	IRIS	25	No
Pentane, n-	1.03E-03			1.00E+00	PPRTV	25	No
Naphthalene		3.40E-05	C	3.00E-03	IRIS	25	No
Tetrachloroethylene		2.60E-07	I	4.00E-02	IRIS	25	No
Toluene	5.75E-05			5.00E+00	IRIS	25	No
Trichloroethylene	6.51E-03	4.10E-06	I	2.00E-03	IRIS	25	Mut
Trimethylbenzene, 1,2,4-				6.00E-02	IRIS	25	No
Trimethylbenzene, 1,3,5-				6.00E-02	IRIS	25	No
Vinyl Chloride	3.01E-03	4.40E-06	I	1.00E-01	IRIS	25	Mut
Xylenes	8.90E-04			1.00E-01	IRIS	25	No
<i>*Sum</i>	<i>1.36E-02</i>						

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref
Benzene	71-43-2	Yes	Yes	78.12	PHYSPROP	9.48E+01	PHYSPROP	1.79E+03	PHYSPROP
Carbon Tetrachloride	56-23-5	Yes	Yes	153.82	PHYSPROP	1.15E+02	PHYSPROP	7.93E+02	PHYSPROP
Cumene	98-82-8	Yes	Yes	120.20	PHYSPROP	4.50E+00	PHYSPROP	6.13E+01	PHYSPROP
Dichloroethylene, 1,1-	75-35-4	Yes	Yes	96.94	PHYSPROP	6.00E+02	PHYSPROP	2.42E+03	PHYSPROP
Dichloroethylene, 1,2-cis-	156-59-2	Yes	No	96.94	PHYSPROP	2.00E+02	PHYSPROP	6.41E+03	PHYSPROP
Dichloroethylene, 1,2-trans-	156-60-5	Yes	No	96.94	PHYSPROP	3.31E+02	EPI	4.52E+03	PHYSPROP
Ethylbenzene	100-41-4	Yes	Yes	106.17	PHYSPROP	9.60E+00	PHYSPROP	1.69E+02	PHYSPROP
Heptane, N-	142-82-5	Yes	Yes	100.21	PHYSPROP	4.60E+01	PHYSPROP	3.40E+00	PHYSPROP
Hexane, N-	110-54-3	Yes	Yes	86.18	PHYSPROP	1.51E+02	PHYSPROP	9.50E+00	PHYSPROP
Methyl tert-Butyl Ether (MTBE)	1634-04-4	Yes	Yes	88.15	PHYSPROP	2.50E+02	PHYSPROP	5.10E+04	PHYSPROP
Pentane, n-	109-66-0	Yes	Yes	72.15	PHYSPROP	5.14E+02	PHYSPROP	3.80E+01	PHYSPROP
Naphthalene	91-20-3	Yes	Yes	128.18	PHYSPROP	8.50E-02	PHYSPROP	3.10E+01	PHYSPROP
Tetrachloroethylene	127-18-4	Yes	Yes	165.83	PHYSPROP	1.85E+01	PHYSPROP	2.06E+02	PHYSPROP
Toluene	108-88-3	Yes	Yes	92.14	PHYSPROP	2.84E+01	PHYSPROP	5.26E+02	PHYSPROP
Trichloroethylene	79-01-6	Yes	Yes	131.39	PHYSPROP	6.90E+01	PHYSPROP	1.28E+03	PHYSPROP
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.20	PHYSPROP	2.10E+00	PHYSPROP	5.70E+01	PHYSPROP
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	120.20	PHYSPROP	2.48E+00	PHYSPROP	4.82E+01	PHYSPROP
Vinyl Chloride	75-01-4	Yes	Yes	62.50	PHYSPROP	2.98E+03	EPI	8.80E+03	PHYSPROP
Xylenes	1330-20-7	Yes	Yes	106.17	PHYSPROP	7.99E+00	PHYSPROP	1.06E+02	PHYSPROP

Chemical	MCL (ug/L)	HLC (atm-m ³ /mole)	Henry's Law Constant (unitless)	H' and HLC Ref	Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature TC (K)	TC Ref
Benzene	5	5.55E-03	2.27E-01	PHYSPROP	2.27E-01	353.15	PHYSPROP	5.62E+02	CRC89
Carbon Tetrachloride	5	2.76E-02	1.13E+00	PHYSPROP	1.13E+00	349.95	PHYSPROP	5.57E+02	CRC89
Cumene		1.15E-02	4.70E-01	PHYSPROP	4.70E-01	425.55	PHYSPROP	6.31E+02	CRC89
Dichloroethylene, 1,1-	7	2.61E-02	1.07E+00	PHYSPROP	1.07E+00	304.85	PHYSPROP	4.82E+02	YAWS
Dichloroethylene, 1,2-cis-	70	4.08E-03	1.67E-01	PHYSPROP	1.67E-01	333.25	PHYSPROP	5.36E+02	CRC89
Dichloroethylene, 1,2-trans-	100	9.38E-03	3.83E-01	PHYSPROP	3.83E-01	321.85	PHYSPROP	5.16E+02	CRC89
Ethylbenzene	700	7.88E-03	3.22E-01	PHYSPROP	3.22E-01	409.25	PHYSPROP	6.17E+02	CRC89
Heptane, N-		2.00E+00	8.18E+01	EPI	8.18E+01	371.65	PHYSPROP	5.40E+02	CRC89
Hexane, N-		1.80E+00	7.36E+01	EPI	7.36E+01	341.85	PHYSPROP	5.08E+02	CRC89
Methyl tert-Butyl Ether (MTBE)		5.87E-04	2.40E-02	PHYSPROP	2.40E-02	328.15	PHYSPROP	4.97E+02	CRC89
Pentane, n-		1.25E+00	5.11E+01	PHYSPROP	5.11E+01	309.15	PHYSPROP	4.70E+02	CRC89
Naphthalene		4.40E-04	1.80E-02	PHYSPROP	1.80E-02	491.05	PHYSPROP	7.48E+02	CRC89
Tetrachloroethylene	5	1.77E-02	7.24E-01	PHYSPROP	7.24E-01	394.45	PHYSPROP	6.20E+02	YAWS
Toluene	1000	6.64E-03	2.71E-01	PHYSPROP	2.71E-01	383.75	PHYSPROP	5.92E+02	CRC89
Trichloroethylene	5	9.85E-03	4.03E-01	PHYSPROP	4.03E-01	360.35	PHYSPROP	5.71E+02	YAWS
Trimethylbenzene, 1,2,4-		6.16E-03	2.52E-01	PHYSPROP	2.52E-01	442.45	PHYSPROP	6.49E+02	CRC89
Trimethylbenzene, 1,3,5-		8.77E-03	3.59E-01	PHYSPROP	3.59E-01	437.85	PHYSPROP	6.37E+02	CRC89
Vinyl Chloride	2	2.78E-02	1.14E+00	PHYSPROP	1.14E+00	259.85	PHYSPROP	4.25E+02	CRC89
Xylenes	10000	6.63E-03	2.71E-01	PHYSPROP	2.71E-01	411.65	PHYSPROP	6.20E+02	YAWS

Chemical	Enthalpy of vaporization at the normal boiling point $\Delta H_{v,b}$ (cal/mol)	$\Delta H_{v,b}$ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
Benzene	7342.26	CRC89	1.20	CRC89
Carbon Tetrachloride	7127.00	Weast		
Cumene	10335.30	TOXNET	0.90	CRC89
Dichloroethylene, 1,1-	6247.61	CRC89	6.50	CRC89
Dichloroethylene, 1,2-cis-	7217.97	CRC89	3.00	CRC89
Dichloroethylene, 1,2-trans-	6907.26	CRC89	6.00	CRC89
Ethylbenzene	8501.43	CRC89	0.80	CRC89
Heptane, N-	7593.21	CRC89	1.05	CRC89
Hexane, N-	6895.31	CRC89	1.10	CRC89
Methyl tert-Butyl Ether (MTBE)	6677.82	CRC89	2.00	YAWS
Pentane, n-	6155.06	TOXNET (converted)	1.40	CRC89
Naphthalene	10373.00	Weast	0.90	CRC89
Tetrachloroethylene	8288.00	Weast		
Toluene	7930.00	Weast	1.10	CRC89
Trichloroethylene	7505.00	Weast	8.00	CRC89
Trimethylbenzene, 1,2,4-	9368.80	TOXNET	0.90	CRC89
Trimethylbenzene, 1,3,5-	9321.00	TOXNET	1.00	CRC89
Vinyl Chloride	4971.32	CRC89	3.60	CRC89
Xylenes	8523.00	Weast		

APPENDIX D - Analytical Reports

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-185588-1
Client Project/Site: Wags - FDL Fond du Lac, WI

For:
CBRE, Inc.
6508 Charleston St
Oak Forest, Illinois 60452

Attn: David Lutz



Authorized for release by:
8/10/2020 8:44:28 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Method Summary	7
Sample Summary	8
Client Sample Results	9
Definitions	23
QC Association	24
Surrogate Summary	26
QC Sample Results	28
Chronicle	43
Certification Summary	46
Chain of Custody	47
Receipt Checklists	48



Case Narrative

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Job ID: 500-185588-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-185588-1

Comments

No additional comments.

Receipt

The samples were received on 7/29/2020 7:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.8° C.

GC/MS VOA

Method 8260B: The laboratory control samples (LCSs) for batches 555074 and 555150 recovered outside control limits for 1,2-Dibromo-3-Chloropropane. This analyte was biased low in the LCSs and was not detected in the associated samples; therefore, the data have been reported. SB-01 (3-4) (500-185588-1), SB-02 (6-7) (500-185588-3), SB-04 (4-6) (500-185588-4), SB-03 (5-6) (500-185588-5), SB-05 (3-4) (500-185588-6) and SB-06 (3-4) (500-185588-7)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270D: The following sample contained one base surrogate outside acceptance limits: SB-06 (3-4) (500-185588-7). The laboratory's SOP allows one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified.

Method 8270D: The following sample was diluted due to the nature of the sample matrix: SB-03 (5-6) (500-185588-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-01 (3-4)

Lab Sample ID: 500-185588-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	140		130	42	ug/Kg	50	☼	8260B	Total/NA
Toluene	71		32	19	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	30	J	63	28	ug/Kg	50	☼	8260B	Total/NA
Acenaphthene	20	J	43	7.8	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	100		43	5.7	ug/Kg	1	☼	8270D	Total/NA
Anthracene	140		43	7.3	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	460		43	5.9	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	600		43	8.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	670		43	9.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	240		43	14	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	460		43	13	ug/Kg	1	☼	8270D	Total/NA
Chrysene	570		43	12	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	45		43	8.4	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	880		43	8.1	ug/Kg	1	☼	8270D	Total/NA
Fluorene	41	J	43	6.1	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	250		43	11	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	120		43	6.7	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	510		43	6.1	ug/Kg	1	☼	8270D	Total/NA
Pyrene	920		43	8.6	ug/Kg	1	☼	8270D	Total/NA
1-Methylnaphthalene	43	J	88	11	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	47	J	88	8.0	ug/Kg	1	☼	8270D	Total/NA

Client Sample ID: TW-01

Lab Sample ID: 500-185588-2

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.17	J	0.50	0.15	ug/L	1		8260B	Total/NA
Acenaphthylene	0.36	J	0.65	0.17	ug/L	1		8270D	Total/NA
Anthracene	0.52	J	0.65	0.22	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.97		0.13	0.037	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	1.3		0.13	0.064	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	1.2		0.13	0.053	ug/L	1		8270D	Total/NA
Benzo[g,h,i]perylene	0.43	J	0.65	0.24	ug/L	1		8270D	Total/NA
Benzo[k]fluoranthene	1.2		0.13	0.042	ug/L	1		8270D	Total/NA
Chrysene	1.1		0.13	0.044	ug/L	1		8270D	Total/NA
Fluoranthene	1.7		0.65	0.30	ug/L	1		8270D	Total/NA
Fluorene	0.16	J	0.65	0.16	ug/L	1		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.91		0.13	0.049	ug/L	1		8270D	Total/NA
Naphthalene	0.77		0.65	0.20	ug/L	1		8270D	Total/NA
Phenanthrene	0.76		0.65	0.20	ug/L	1		8270D	Total/NA
Pyrene	1.9		0.65	0.28	ug/L	1		8270D	Total/NA
2-Methylnaphthalene	0.15	J	1.3	0.042	ug/L	1		8270D	Total/NA

Client Sample ID: SB-02 (6-7)

Lab Sample ID: 500-185588-3

No Detections.

Client Sample ID: SB-04 (4-6)

Lab Sample ID: 500-185588-4

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	12	J	44	7.9	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	14	J	44	5.8	ug/Kg	1	☼	8270D	Total/NA
Anthracene	25	J	44	7.4	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	96		44	5.9	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-04 (4-6) (Continued)

Lab Sample ID: 500-185588-4

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	110		44	8.5	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	100		44	9.5	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	75		44	14	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	110		44	13	ug/Kg	1	☼	8270D	Total/NA
Chrysene	110		44	12	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	12	J	44	8.5	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	190		44	8.2	ug/Kg	1	☼	8270D	Total/NA
Fluorene	9.1	J	44	6.2	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	72		44	11	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	7.5	J	44	6.8	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	130		44	6.1	ug/Kg	1	☼	8270D	Total/NA
Pyrene	190		44	8.8	ug/Kg	1	☼	8270D	Total/NA

Client Sample ID: SB-03 (5-6)

Lab Sample ID: 500-185588-5

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
p-Isopropyltoluene	63	J	140	51	ug/Kg	50	☼	8260B	Total/NA
Acenaphthene	44	J	200	37	ug/Kg	5	☼	8270D	Total/NA
Acenaphthylene	81	J	200	27	ug/Kg	5	☼	8270D	Total/NA
Anthracene	220		200	34	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]anthracene	740		200	27	ug/Kg	5	☼	8270D	Total/NA
Benzo[a]pyrene	870		200	39	ug/Kg	5	☼	8270D	Total/NA
Benzo[b]fluoranthene	620		200	44	ug/Kg	5	☼	8270D	Total/NA
Benzo[g,h,i]perylene	580		200	66	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene	860		200	60	ug/Kg	5	☼	8270D	Total/NA
Chrysene	910		200	55	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene	1400		200	38	ug/Kg	5	☼	8270D	Total/NA
Fluorene	64	J	200	29	ug/Kg	5	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	470		200	53	ug/Kg	5	☼	8270D	Total/NA
Naphthalene	73	J	200	31	ug/Kg	5	☼	8270D	Total/NA
Phenanthrene	910		200	28	ug/Kg	5	☼	8270D	Total/NA
Pyrene	1400		200	40	ug/Kg	5	☼	8270D	Total/NA
1-Methylnaphthalene	92	J	410	50	ug/Kg	5	☼	8270D	Total/NA
2-Methylnaphthalene	97	J	410	37	ug/Kg	5	☼	8270D	Total/NA

Client Sample ID: SB-05 (3-4)

Lab Sample ID: 500-185588-6

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	18	J	42	5.6	ug/Kg	1	☼	8270D	Total/NA
Anthracene	21	J	42	7.0	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	66		42	5.7	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	94		42	8.2	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	88		42	9.1	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	78		42	14	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	78		42	12	ug/Kg	1	☼	8270D	Total/NA
Chrysene	110		42	11	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	160		42	7.8	ug/Kg	1	☼	8270D	Total/NA
Fluorene	11	J	42	5.9	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	64		42	11	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	8.7	J	42	6.5	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	140		42	5.9	ug/Kg	1	☼	8270D	Total/NA
Pyrene	200		42	8.4	ug/Kg	1	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-05 (3-4) (Continued)

Lab Sample ID: 500-185588-6

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	8.3	J	85	7.7	ug/Kg	1	☼	8270D	Total/NA

Client Sample ID: SB-06 (3-4)

Lab Sample ID: 500-185588-7

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Benzene	58		35	21	ug/Kg	50	☼	8260B	Total/NA
Ethylbenzene	82		35	26	ug/Kg	50	☼	8260B	Total/NA
Toluene	150		35	21	ug/Kg	50	☼	8260B	Total/NA
1,2,4-Trimethylbenzene	61	J	140	51	ug/Kg	50	☼	8260B	Total/NA
Xylenes, Total	210		71	31	ug/Kg	50	☼	8260B	Total/NA
Acenaphthene	200		41	7.4	ug/Kg	1	☼	8270D	Total/NA
Acenaphthylene	270		41	5.4	ug/Kg	1	☼	8270D	Total/NA
Anthracene	580		41	6.9	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	1900		41	5.5	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	2500		41	8.0	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	1300		41	13	ug/Kg	1	☼	8270D	Total/NA
Chrysene	2500		41	11	ug/Kg	1	☼	8270D	Total/NA
Dibenz(a,h)anthracene	230		41	7.9	ug/Kg	1	☼	8270D	Total/NA
Fluorene	330		41	5.8	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	1300		41	11	ug/Kg	1	☼	8270D	Total/NA
Naphthalene	310		41	6.3	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	2800		41	5.7	ug/Kg	1	☼	8270D	Total/NA
1-Methylnaphthalene	220		83	10	ug/Kg	1	☼	8270D	Total/NA
2-Methylnaphthalene	210		83	7.6	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene - DL	3200		200	44	ug/Kg	5	☼	8270D	Total/NA
Benzo[k]fluoranthene - DL	1600		200	61	ug/Kg	5	☼	8270D	Total/NA
Fluoranthene - DL	5000		200	38	ug/Kg	5	☼	8270D	Total/NA
Pyrene - DL	5300		200	41	ug/Kg	5	☼	8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-185588-1	SB-01 (3-4)	Solid	07/27/20 11:00	07/29/20 07:00	
500-185588-2	TW-01	Water	07/27/20 12:15	07/29/20 07:00	
500-185588-3	SB-02 (6-7)	Solid	07/27/20 12:05	07/29/20 07:00	
500-185588-4	SB-04 (4-6)	Solid	07/27/20 12:50	07/29/20 07:00	
500-185588-5	SB-03 (5-6)	Solid	07/27/20 15:10	07/29/20 07:00	
500-185588-6	SB-05 (3-4)	Solid	07/27/20 15:25	07/29/20 07:00	
500-185588-7	SB-06 (3-4)	Solid	07/27/20 15:45	07/29/20 07:00	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-01 (3-4)

Lab Sample ID: 500-185588-1

Date Collected: 07/27/20 11:00

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 74.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<18		32	18	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Bromobenzene	<45		130	45	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Bromochloromethane	<54		130	54	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Bromodichloromethane	<47		130	47	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Bromoform	<61		130	61	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Bromomethane	<100		380	100	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
n-Butylbenzene	<49		130	49	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
sec-Butylbenzene	<50		130	50	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
tert-Butylbenzene	<50		130	50	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Carbon tetrachloride	<49		130	49	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Chlorobenzene	<49		130	49	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Dibromochloromethane	<62		130	62	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Chloroethane	<64		130	64	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Chloroform	<47		250	47	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Chloromethane	<40		130	40	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
2-Chlorotoluene	<40		130	40	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
4-Chlorotoluene	<44		130	44	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,2-Dibromo-3-Chloropropane	<250 *		630	250	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,2-Dibromoethane	<49		130	49	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Dibromomethane	<34		130	34	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,2-Dichlorobenzene	<42		130	42	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,3-Dichlorobenzene	<51		130	51	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,4-Dichlorobenzene	<46		130	46	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Dichlorodifluoromethane	<85		380	85	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,1-Dichloroethane	<52		130	52	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,2-Dichloroethane	<50		130	50	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,1-Dichloroethene	<49		130	49	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
cis-1,2-Dichloroethene	<52		130	52	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
trans-1,2-Dichloroethene	<44		130	44	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,2-Dichloropropane	<54		130	54	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,3-Dichloropropane	<46		130	46	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
2,2-Dichloropropane	<56		130	56	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,1-Dichloropropene	<38		130	38	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
cis-1,3-Dichloropropene	<53		130	53	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
trans-1,3-Dichloropropene	<46		130	46	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Isopropyl ether	<35		130	35	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Ethylbenzene	<23		32	23	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Hexachlorobutadiene	<56		130	56	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Isopropylbenzene	<49		130	49	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
p-Isopropyltoluene	<46		130	46	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Methylene Chloride	<210		630	210	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Methyl tert-butyl ether	<50		130	50	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Naphthalene	140		130	42	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
N-Propylbenzene	<52		130	52	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Styrene	<49		130	49	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,1,1,2-Tetrachloroethane	<58		130	58	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,1,1,2,2-Tetrachloroethane	<50		130	50	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Tetrachloroethene	<47		130	47	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Toluene	71		32	19	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50

Eurofins TestAmerica, Chicago

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-01 (3-4)

Lab Sample ID: 500-185588-1

Date Collected: 07/27/20 11:00

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 74.1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<58		130	58	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,2,4-Trichlorobenzene	<43		130	43	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,1,1-Trichloroethane	<48		130	48	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,1,2-Trichloroethane	<44		130	44	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Trichloroethene	<21		63	21	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Trichlorofluoromethane	<54		130	54	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,2,3-Trichloropropane	<52		250	52	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,2,4-Trimethylbenzene	<45		130	45	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
1,3,5-Trimethylbenzene	<48		130	48	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Vinyl chloride	<33		130	33	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50
Xylenes, Total	30	J	63	28	ug/Kg	☼	07/27/20 11:00	08/04/20 12:07	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 126	07/27/20 11:00	08/04/20 12:07	50
Toluene-d8 (Surr)	99		75 - 120	07/27/20 11:00	08/04/20 12:07	50
4-Bromofluorobenzene (Surr)	92		72 - 124	07/27/20 11:00	08/04/20 12:07	50
Dibromofluoromethane (Surr)	94		75 - 120	07/27/20 11:00	08/04/20 12:07	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	20	J	43	7.8	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Acenaphthylene	100		43	5.7	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Anthracene	140		43	7.3	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Benzo[a]anthracene	460		43	5.9	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Benzo[a]pyrene	600		43	8.4	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Benzo[b]fluoranthene	670		43	9.4	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Benzo[g,h,i]perylene	240		43	14	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Benzo[k]fluoranthene	460		43	13	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Chrysene	570		43	12	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Dibenz(a,h)anthracene	45		43	8.4	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Fluoranthene	880		43	8.1	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Fluorene	41	J	43	6.1	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Indeno[1,2,3-cd]pyrene	250		43	11	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Naphthalene	120		43	6.7	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Phenanthrene	510		43	6.1	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
Pyrene	920		43	8.6	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
1-Methylnaphthalene	43	J	88	11	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1
2-Methylnaphthalene	47	J	88	8.0	ug/Kg	☼	08/06/20 19:02	08/07/20 13:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	72		37 - 147	08/06/20 19:02	08/07/20 13:59	1
Terphenyl-d14 (Surr)	96		42 - 157	08/06/20 19:02	08/07/20 13:59	1
2-Fluorobiphenyl (Surr)	89		43 - 145	08/06/20 19:02	08/07/20 13:59	1

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: TW-01
Date Collected: 07/27/20 12:15
Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			08/04/20 14:43	1
Bromobenzene	<0.36		1.0	0.36	ug/L			08/04/20 14:43	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			08/04/20 14:43	1
Bromodichloromethane	<0.37		1.0	0.37	ug/L			08/04/20 14:43	1
Bromoform	<0.48		1.0	0.48	ug/L			08/04/20 14:43	1
Bromomethane	<0.80		3.0	0.80	ug/L			08/04/20 14:43	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			08/04/20 14:43	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			08/04/20 14:43	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			08/04/20 14:43	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			08/04/20 14:43	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			08/04/20 14:43	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			08/04/20 14:43	1
Chloroethane	<0.51		1.0	0.51	ug/L			08/04/20 14:43	1
Chloroform	<0.37		2.0	0.37	ug/L			08/04/20 14:43	1
Chloromethane	<0.32		1.0	0.32	ug/L			08/04/20 14:43	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			08/04/20 14:43	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			08/04/20 14:43	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			08/04/20 14:43	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			08/04/20 14:43	1
Dibromomethane	<0.27		1.0	0.27	ug/L			08/04/20 14:43	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			08/04/20 14:43	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			08/04/20 14:43	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			08/04/20 14:43	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			08/04/20 14:43	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			08/04/20 14:43	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			08/04/20 14:43	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			08/04/20 14:43	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/04/20 14:43	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/04/20 14:43	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			08/04/20 14:43	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			08/04/20 14:43	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			08/04/20 14:43	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			08/04/20 14:43	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			08/04/20 14:43	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			08/04/20 14:43	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			08/04/20 14:43	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			08/04/20 14:43	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			08/04/20 14:43	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			08/04/20 14:43	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			08/04/20 14:43	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			08/04/20 14:43	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			08/04/20 14:43	1
Naphthalene	<0.34		1.0	0.34	ug/L			08/04/20 14:43	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			08/04/20 14:43	1
Styrene	<0.39		1.0	0.39	ug/L			08/04/20 14:43	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			08/04/20 14:43	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			08/04/20 14:43	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/04/20 14:43	1
Toluene	0.17 J		0.50	0.15	ug/L			08/04/20 14:43	1

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: TW-01

Lab Sample ID: 500-185588-2

Date Collected: 07/27/20 12:15

Matrix: Water

Date Received: 07/29/20 07:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			08/04/20 14:43	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			08/04/20 14:43	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/04/20 14:43	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/04/20 14:43	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/04/20 14:43	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			08/04/20 14:43	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			08/04/20 14:43	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			08/04/20 14:43	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			08/04/20 14:43	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/04/20 14:43	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			08/04/20 14:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 126		08/04/20 14:43	1
Toluene-d8 (Surr)	100		75 - 120		08/04/20 14:43	1
4-Bromofluorobenzene (Surr)	93		72 - 124		08/04/20 14:43	1
Dibromofluoromethane (Surr)	96		75 - 120		08/04/20 14:43	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.20		0.65	0.20	ug/L		07/30/20 08:04	07/31/20 18:37	1
Acenaphthylene	0.36	J	0.65	0.17	ug/L		07/30/20 08:04	07/31/20 18:37	1
Anthracene	0.52	J	0.65	0.22	ug/L		07/30/20 08:04	07/31/20 18:37	1
Benzo[a]anthracene	0.97		0.13	0.037	ug/L		07/30/20 08:04	07/31/20 18:37	1
Benzo[a]pyrene	1.3		0.13	0.064	ug/L		07/30/20 08:04	07/31/20 18:37	1
Benzo[b]fluoranthene	1.2		0.13	0.053	ug/L		07/30/20 08:04	07/31/20 18:37	1
Benzo[g,h,i]perylene	0.43	J	0.65	0.24	ug/L		07/30/20 08:04	07/31/20 18:37	1
Benzo[k]fluoranthene	1.2		0.13	0.042	ug/L		07/30/20 08:04	07/31/20 18:37	1
Chrysene	1.1		0.13	0.044	ug/L		07/30/20 08:04	07/31/20 18:37	1
Dibenz(a,h)anthracene	<0.033		0.20	0.033	ug/L		07/30/20 08:04	07/31/20 18:37	1
Fluoranthene	1.7		0.65	0.30	ug/L		07/30/20 08:04	07/31/20 18:37	1
Fluorene	0.16	J	0.65	0.16	ug/L		07/30/20 08:04	07/31/20 18:37	1
Indeno[1,2,3-cd]pyrene	0.91		0.13	0.049	ug/L		07/30/20 08:04	07/31/20 18:37	1
Naphthalene	0.77		0.65	0.20	ug/L		07/30/20 08:04	07/31/20 18:37	1
Phenanthrene	0.76		0.65	0.20	ug/L		07/30/20 08:04	07/31/20 18:37	1
Pyrene	1.9		0.65	0.28	ug/L		07/30/20 08:04	07/31/20 18:37	1
1-Methylnaphthalene	<0.20		1.3	0.20	ug/L		07/30/20 08:04	07/31/20 18:37	1
2-Methylnaphthalene	0.15	J	1.3	0.042	ug/L		07/30/20 08:04	07/31/20 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	73		36 - 120	07/30/20 08:04	07/31/20 18:37	1
Terphenyl-d14 (Surr)	65		40 - 145	07/30/20 08:04	07/31/20 18:37	1
2-Fluorobiphenyl (Surr)	75		34 - 110	07/30/20 08:04	07/31/20 18:37	1

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-02 (6-7)

Lab Sample ID: 500-185588-3

Date Collected: 07/27/20 12:05

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 83.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<11		19	11	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Bromobenzene	<27		76	27	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Bromochloromethane	<32		76	32	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Bromodichloromethane	<28		76	28	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Bromoform	<37		76	37	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Bromomethane	<60		230	60	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
n-Butylbenzene	<29		76	29	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
sec-Butylbenzene	<30		76	30	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
tert-Butylbenzene	<30		76	30	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Carbon tetrachloride	<29		76	29	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Chlorobenzene	<29		76	29	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Dibromochloromethane	<37		76	37	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Chloroethane	<38		76	38	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Chloroform	<28		150	28	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Chloromethane	<24		76	24	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
2-Chlorotoluene	<24		76	24	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
4-Chlorotoluene	<27		76	27	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,2-Dibromo-3-Chloropropane	<150 *		380	150	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,2-Dibromoethane	<29		76	29	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Dibromomethane	<20		76	20	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,2-Dichlorobenzene	<25		76	25	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,3-Dichlorobenzene	<30		76	30	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,4-Dichlorobenzene	<28		76	28	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Dichlorodifluoromethane	<51		230	51	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,1-Dichloroethane	<31		76	31	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,2-Dichloroethane	<30		76	30	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,1-Dichloroethene	<30		76	30	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
cis-1,2-Dichloroethene	<31		76	31	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
trans-1,2-Dichloroethene	<27		76	27	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,2-Dichloropropane	<32		76	32	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,3-Dichloropropane	<27		76	27	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
2,2-Dichloropropane	<34		76	34	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,1-Dichloropropene	<23		76	23	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
cis-1,3-Dichloropropene	<32		76	32	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
trans-1,3-Dichloropropene	<27		76	27	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Isopropyl ether	<21		76	21	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Ethylbenzene	<14		19	14	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Hexachlorobutadiene	<34		76	34	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Isopropylbenzene	<29		76	29	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
p-Isopropyltoluene	<27		76	27	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Methylene Chloride	<120		380	120	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Methyl tert-butyl ether	<30		76	30	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Naphthalene	<25		76	25	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
N-Propylbenzene	<31		76	31	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Styrene	<29		76	29	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,1,1,2-Tetrachloroethane	<35		76	35	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,1,2,2-Tetrachloroethane	<30		76	30	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Tetrachloroethene	<28		76	28	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Toluene	<11		19	11	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50

Eurofins TestAmerica, Chicago

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-02 (6-7)

Lab Sample ID: 500-185588-3

Date Collected: 07/27/20 12:05

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 83.0

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<35		76	35	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,2,4-Trichlorobenzene	<26		76	26	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,1,1-Trichloroethane	<29		76	29	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,1,2-Trichloroethane	<27		76	27	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Trichloroethene	<12		38	12	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Trichlorofluoromethane	<32		76	32	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,2,3-Trichloropropane	<31		150	31	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,2,4-Trimethylbenzene	<27		76	27	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
1,3,5-Trimethylbenzene	<29		76	29	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Vinyl chloride	<20		76	20	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50
Xylenes, Total	<17		38	17	ug/Kg	☼	07/27/20 12:05	08/04/20 12:33	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 126	07/27/20 12:05	08/04/20 12:33	50
Toluene-d8 (Surr)	99		75 - 120	07/27/20 12:05	08/04/20 12:33	50
4-Bromofluorobenzene (Surr)	94		72 - 124	07/27/20 12:05	08/04/20 12:33	50
Dibromofluoromethane (Surr)	94		75 - 120	07/27/20 12:05	08/04/20 12:33	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<7.1		39	7.1	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Acenaphthylene	<5.2		39	5.2	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Anthracene	<6.6		39	6.6	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Benzo[a]anthracene	<5.3		39	5.3	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Benzo[a]pyrene	<7.6		39	7.6	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Benzo[b]fluoranthene	<8.5		39	8.5	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Benzo[g,h,i]perylene	<13		39	13	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Benzo[k]fluoranthene	<12		39	12	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Chrysene	<11		39	11	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Dibenz(a,h)anthracene	<7.6		39	7.6	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Fluoranthene	<7.3		39	7.3	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Fluorene	<5.6		39	5.6	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Indeno[1,2,3-cd]pyrene	<10		39	10	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Naphthalene	<6.1		39	6.1	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Phenanthrene	<5.5		39	5.5	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
Pyrene	<7.8		39	7.8	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
1-Methylnaphthalene	<9.6		80	9.6	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1
2-Methylnaphthalene	<7.3		80	7.3	ug/Kg	☼	08/06/20 19:02	08/07/20 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	63		37 - 147	08/06/20 19:02	08/07/20 12:25	1
Terphenyl-d14 (Surr)	107		42 - 157	08/06/20 19:02	08/07/20 12:25	1
2-Fluorobiphenyl (Surr)	85		43 - 145	08/06/20 19:02	08/07/20 12:25	1

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-04 (4-6)

Lab Sample ID: 500-185588-4

Date Collected: 07/27/20 12:50

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 74.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<17		30	17	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Bromobenzene	<42		120	42	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Bromochloromethane	<51		120	51	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Bromodichloromethane	<44		120	44	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Bromoform	<58		120	58	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Bromomethane	<95		360	95	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
n-Butylbenzene	<46		120	46	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
sec-Butylbenzene	<48		120	48	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
tert-Butylbenzene	<48		120	48	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Carbon tetrachloride	<46		120	46	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Chlorobenzene	<46		120	46	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Dibromochloromethane	<58		120	58	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Chloroethane	<60		120	60	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Chloroform	<44		240	44	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Chloromethane	<38		120	38	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
2-Chlorotoluene	<37		120	37	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
4-Chlorotoluene	<42		120	42	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,2-Dibromo-3-Chloropropane	<240 *		600	240	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,2-Dibromoethane	<46		120	46	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Dibromomethane	<32		120	32	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,2-Dichlorobenzene	<40		120	40	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,3-Dichlorobenzene	<48		120	48	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,4-Dichlorobenzene	<43		120	43	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Dichlorodifluoromethane	<80		360	80	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,1-Dichloroethane	<49		120	49	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,2-Dichloroethane	<47		120	47	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,1-Dichloroethene	<47		120	47	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
cis-1,2-Dichloroethene	<49		120	49	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
trans-1,2-Dichloroethene	<42		120	42	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,2-Dichloropropane	<51		120	51	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,3-Dichloropropane	<43		120	43	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
2,2-Dichloropropane	<53		120	53	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,1-Dichloropropene	<36		120	36	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
cis-1,3-Dichloropropene	<50		120	50	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
trans-1,3-Dichloropropene	<43		120	43	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Isopropyl ether	<33		120	33	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Ethylbenzene	<22		30	22	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Hexachlorobutadiene	<53		120	53	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Isopropylbenzene	<46		120	46	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
p-Isopropyltoluene	<43		120	43	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Methylene Chloride	<190		600	190	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Methyl tert-butyl ether	<47		120	47	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Naphthalene	<40		120	40	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
N-Propylbenzene	<49		120	49	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Styrene	<46		120	46	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,1,1,2-Tetrachloroethane	<55		120	55	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,1,1,2,2-Tetrachloroethane	<48		120	48	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Tetrachloroethene	<44		120	44	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Toluene	<18		30	18	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50

Eurofins TestAmerica, Chicago

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-04 (4-6)

Lab Sample ID: 500-185588-4

Date Collected: 07/27/20 12:50

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 74.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<55		120	55	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,2,4-Trichlorobenzene	<41		120	41	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,1,1-Trichloroethane	<45		120	45	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,1,2-Trichloroethane	<42		120	42	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Trichloroethene	<20		60	20	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Trichlorofluoromethane	<51		120	51	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,2,3-Trichloropropane	<49		240	49	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,2,4-Trimethylbenzene	<43		120	43	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
1,3,5-Trimethylbenzene	<45		120	45	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Vinyl chloride	<31		120	31	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50
Xylenes, Total	<26		60	26	ug/Kg	☼	07/27/20 12:50	08/04/20 12:59	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 126	07/27/20 12:50	08/04/20 12:59	50
Toluene-d8 (Surr)	99		75 - 120	07/27/20 12:50	08/04/20 12:59	50
4-Bromofluorobenzene (Surr)	94		72 - 124	07/27/20 12:50	08/04/20 12:59	50
Dibromofluoromethane (Surr)	95		75 - 120	07/27/20 12:50	08/04/20 12:59	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	12	J	44	7.9	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Acenaphthylene	14	J	44	5.8	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Anthracene	25	J	44	7.4	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Benzo[a]anthracene	96		44	5.9	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Benzo[a]pyrene	110		44	8.5	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Benzo[b]fluoranthene	100		44	9.5	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Benzo[g,h,i]perylene	75		44	14	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Benzo[k]fluoranthene	110		44	13	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Chrysene	110		44	12	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Dibenz(a,h)anthracene	12	J	44	8.5	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Fluoranthene	190		44	8.2	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Fluorene	9.1	J	44	6.2	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Indeno[1,2,3-cd]pyrene	72		44	11	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Naphthalene	7.5	J	44	6.8	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Phenanthrene	130		44	6.1	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
Pyrene	190		44	8.8	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
1-Methylnaphthalene	<11		89	11	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1
2-Methylnaphthalene	<8.1		89	8.1	ug/Kg	☼	08/06/20 19:02	08/07/20 13:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	55		37 - 147	08/06/20 19:02	08/07/20 13:12	1
Terphenyl-d14 (Surr)	88		42 - 157	08/06/20 19:02	08/07/20 13:12	1
2-Fluorobiphenyl (Surr)	69		43 - 145	08/06/20 19:02	08/07/20 13:12	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-03 (5-6)

Lab Sample ID: 500-185588-5

Date Collected: 07/27/20 15:10

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 80.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<21		35	21	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Bromobenzene	<50		140	50	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Bromochloromethane	<61		140	61	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Bromodichloromethane	<53		140	53	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Bromoform	<68		140	68	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Bromomethane	<110		420	110	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
n-Butylbenzene	<55		140	55	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
sec-Butylbenzene	<56		140	56	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
tert-Butylbenzene	<56		140	56	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Carbon tetrachloride	<54		140	54	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Chlorobenzene	<55		140	55	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Dibromochloromethane	<69		140	69	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Chloroethane	<71		140	71	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Chloroform	<52		280	52	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Chloromethane	<45		140	45	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
2-Chlorotoluene	<44		140	44	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
4-Chlorotoluene	<50		140	50	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,2-Dibromo-3-Chloropropane	<280 *		710	280	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,2-Dibromoethane	<55		140	55	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Dibromomethane	<38		140	38	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,2-Dichlorobenzene	<47		140	47	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,3-Dichlorobenzene	<57		140	57	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,4-Dichlorobenzene	<51		140	51	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Dichlorodifluoromethane	<95		420	95	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,1-Dichloroethane	<58		140	58	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,2-Dichloroethane	<55		140	55	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,1-Dichloroethene	<55		140	55	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
cis-1,2-Dichloroethene	<58		140	58	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
trans-1,2-Dichloroethene	<50		140	50	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,2-Dichloropropane	<61		140	61	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,3-Dichloropropane	<51		140	51	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
2,2-Dichloropropane	<63		140	63	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,1-Dichloropropene	<42		140	42	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
cis-1,3-Dichloropropene	<59		140	59	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
trans-1,3-Dichloropropene	<51		140	51	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Isopropyl ether	<39		140	39	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Ethylbenzene	<26		35	26	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Hexachlorobutadiene	<63		140	63	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Isopropylbenzene	<54		140	54	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
p-Isopropyltoluene	63 J		140	51	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Methylene Chloride	<230		710	230	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Methyl tert-butyl ether	<56		140	56	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Naphthalene	<47		140	47	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
N-Propylbenzene	<59		140	59	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Styrene	<55		140	55	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,1,1,2-Tetrachloroethane	<65		140	65	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,1,2,2-Tetrachloroethane	<56		140	56	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Tetrachloroethene	<52		140	52	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Toluene	<21		35	21	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50

Eurofins TestAmerica, Chicago

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-03 (5-6)

Lab Sample ID: 500-185588-5

Date Collected: 07/27/20 15:10

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 80.6

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<65		140	65	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,2,4-Trichlorobenzene	<48		140	48	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,1,1-Trichloroethane	<54		140	54	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,1,2-Trichloroethane	<50		140	50	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Trichloroethene	<23		71	23	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Trichlorofluoromethane	<61		140	61	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,2,3-Trichloropropane	<59		280	59	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,2,4-Trimethylbenzene	<51		140	51	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
1,3,5-Trimethylbenzene	<54		140	54	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Vinyl chloride	<37		140	37	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Xylenes, Total	<31		71	31	ug/Kg	☼	07/27/20 15:10	08/04/20 13:25	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 126				07/27/20 15:10	08/04/20 13:25	50
Toluene-d8 (Surr)	97		75 - 120				07/27/20 15:10	08/04/20 13:25	50
4-Bromofluorobenzene (Surr)	92		72 - 124				07/27/20 15:10	08/04/20 13:25	50
Dibromofluoromethane (Surr)	95		75 - 120				07/27/20 15:10	08/04/20 13:25	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	44	J	200	37	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Acenaphthylene	81	J	200	27	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Anthracene	220		200	34	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Benzo[a]anthracene	740		200	27	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Benzo[a]pyrene	870		200	39	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Benzo[b]fluoranthene	620		200	44	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Benzo[g,h,i]perylene	580		200	66	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Benzo[k]fluoranthene	860		200	60	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Chrysene	910		200	55	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Dibenz(a,h)anthracene	<39		200	39	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Fluoranthene	1400		200	38	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Fluorene	64	J	200	29	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Indeno[1,2,3-cd]pyrene	470		200	53	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Naphthalene	73	J	200	31	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Phenanthrene	910		200	28	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Pyrene	1400		200	40	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
1-Methylnaphthalene	92	J	410	50	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
2-Methylnaphthalene	97	J	410	37	ug/Kg	☼	08/06/20 19:02	08/07/20 12:01	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	56		37 - 147				08/06/20 19:02	08/07/20 12:01	5
Terphenyl-d14 (Surr)	80		42 - 157				08/06/20 19:02	08/07/20 12:01	5
2-Fluorobiphenyl (Surr)	77		43 - 145				08/06/20 19:02	08/07/20 12:01	5

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-05 (3-4)

Lab Sample ID: 500-185588-6

Date Collected: 07/27/20 15:25

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 74.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<17		30	17	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Bromobenzene	<43		120	43	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Bromochloromethane	<51		120	51	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Bromodichloromethane	<44		120	44	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Bromoform	<58		120	58	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Bromomethane	<95		360	95	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
n-Butylbenzene	<46		120	46	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
sec-Butylbenzene	<48		120	48	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
tert-Butylbenzene	<48		120	48	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Carbon tetrachloride	<46		120	46	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Chlorobenzene	<46		120	46	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Dibromochloromethane	<58		120	58	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Chloroethane	<60		120	60	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Chloroform	<44		240	44	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Chloromethane	<38		120	38	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
2-Chlorotoluene	<37		120	37	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
4-Chlorotoluene	<42		120	42	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,2-Dibromo-3-Chloropropane	<240 *		600	240	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,2-Dibromoethane	<46		120	46	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Dibromomethane	<32		120	32	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,2-Dichlorobenzene	<40		120	40	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,3-Dichlorobenzene	<48		120	48	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,4-Dichlorobenzene	<43		120	43	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Dichlorodifluoromethane	<80		360	80	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,1-Dichloroethane	<49		120	49	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,2-Dichloroethane	<47		120	47	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,1-Dichloroethene	<47		120	47	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
cis-1,2-Dichloroethene	<49		120	49	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
trans-1,2-Dichloroethene	<42		120	42	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,2-Dichloropropane	<51		120	51	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,3-Dichloropropane	<43		120	43	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
2,2-Dichloropropane	<53		120	53	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,1-Dichloropropene	<36		120	36	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
cis-1,3-Dichloropropene	<50		120	50	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
trans-1,3-Dichloropropene	<43		120	43	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Isopropyl ether	<33		120	33	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Ethylbenzene	<22		30	22	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Hexachlorobutadiene	<53		120	53	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Isopropylbenzene	<46		120	46	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
p-Isopropyltoluene	<43		120	43	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Methylene Chloride	<190		600	190	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Methyl tert-butyl ether	<47		120	47	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Naphthalene	<40		120	40	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
N-Propylbenzene	<49		120	49	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Styrene	<46		120	46	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,1,1,2-Tetrachloroethane	<55		120	55	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,1,1,2,2-Tetrachloroethane	<48		120	48	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Tetrachloroethene	<44		120	44	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Toluene	<18		30	18	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50

Eurofins TestAmerica, Chicago

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-05 (3-4)

Lab Sample ID: 500-185588-6

Date Collected: 07/27/20 15:25

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 74.6

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<55		120	55	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,2,4-Trichlorobenzene	<41		120	41	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,1,1-Trichloroethane	<45		120	45	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,1,2-Trichloroethane	<42		120	42	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Trichloroethene	<20		60	20	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Trichlorofluoromethane	<51		120	51	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,2,3-Trichloropropane	<49		240	49	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,2,4-Trimethylbenzene	<43		120	43	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
1,3,5-Trimethylbenzene	<45		120	45	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Vinyl chloride	<31		120	31	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50
Xylenes, Total	<26		60	26	ug/Kg	☼	07/27/20 15:25	08/04/20 13:51	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 126	07/27/20 15:25	08/04/20 13:51	50
Toluene-d8 (Surr)	98		75 - 120	07/27/20 15:25	08/04/20 13:51	50
4-Bromofluorobenzene (Surr)	92		72 - 124	07/27/20 15:25	08/04/20 13:51	50
Dibromofluoromethane (Surr)	96		75 - 120	07/27/20 15:25	08/04/20 13:51	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<7.6		42	7.6	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Acenaphthylene	18	J	42	5.6	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Anthracene	21	J	42	7.0	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Benzo[a]anthracene	66		42	5.7	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Benzo[a]pyrene	94		42	8.2	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Benzo[b]fluoranthene	88		42	9.1	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Benzo[g,h,i]perylene	78		42	14	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Benzo[k]fluoranthene	78		42	12	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Chrysene	110		42	11	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Dibenz(a,h)anthracene	<8.1		42	8.1	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Fluoranthene	160		42	7.8	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Fluorene	11	J	42	5.9	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Indeno[1,2,3-cd]pyrene	64		42	11	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Naphthalene	8.7	J	42	6.5	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Phenanthrene	140		42	5.9	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
Pyrene	200		42	8.4	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
1-Methylnaphthalene	<10		85	10	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1
2-Methylnaphthalene	8.3	J	85	7.7	ug/Kg	☼	08/06/20 19:02	08/07/20 12:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	59		37 - 147	08/06/20 19:02	08/07/20 12:48	1
Terphenyl-d14 (Surr)	92		42 - 157	08/06/20 19:02	08/07/20 12:48	1
2-Fluorobiphenyl (Surr)	82		43 - 145	08/06/20 19:02	08/07/20 12:48	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-06 (3-4)

Lab Sample ID: 500-185588-7

Date Collected: 07/27/20 15:45

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 77.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	58		35	21	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Bromobenzene	<50		140	50	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Bromochloromethane	<61		140	61	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Bromodichloromethane	<53		140	53	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Bromoform	<69		140	69	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Bromomethane	<110		430	110	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
n-Butylbenzene	<55		140	55	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
sec-Butylbenzene	<56		140	56	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
tert-Butylbenzene	<56		140	56	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Carbon tetrachloride	<54		140	54	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Chlorobenzene	<55		140	55	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Dibromochloromethane	<69		140	69	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Chloroethane	<71		140	71	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Chloroform	<52		280	52	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Chloromethane	<45		140	45	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
2-Chlorotoluene	<44		140	44	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
4-Chlorotoluene	<50		140	50	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,2-Dibromo-3-Chloropropane	<280 *		710	280	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,2-Dibromoethane	<55		140	55	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Dibromomethane	<38		140	38	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,2-Dichlorobenzene	<47		140	47	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,3-Dichlorobenzene	<57		140	57	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,4-Dichlorobenzene	<52		140	52	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Dichlorodifluoromethane	<96		430	96	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,1-Dichloroethane	<58		140	58	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,2-Dichloroethane	<56		140	56	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,1-Dichloroethene	<55		140	55	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
cis-1,2-Dichloroethene	<58		140	58	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
trans-1,2-Dichloroethene	<50		140	50	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,2-Dichloropropane	<61		140	61	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,3-Dichloropropane	<51		140	51	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
2,2-Dichloropropane	<63		140	63	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,1-Dichloropropene	<42		140	42	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
cis-1,3-Dichloropropene	<59		140	59	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
trans-1,3-Dichloropropene	<51		140	51	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Isopropyl ether	<39		140	39	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Ethylbenzene	82		35	26	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Hexachlorobutadiene	<63		140	63	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Isopropylbenzene	<54		140	54	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
p-Isopropyltoluene	<51		140	51	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Methylene Chloride	<230		710	230	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Methyl tert-butyl ether	<56		140	56	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Naphthalene	<47		140	47	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
N-Propylbenzene	<59		140	59	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Styrene	<55		140	55	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,1,1,2-Tetrachloroethane	<65		140	65	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,1,1,2-Tetrachloroethane	<56		140	56	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Tetrachloroethene	<52		140	52	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Toluene	150		35	21	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50

Eurofins TestAmerica, Chicago

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-06 (3-4)

Lab Sample ID: 500-185588-7

Date Collected: 07/27/20 15:45

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 77.8

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<65		140	65	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,2,4-Trichlorobenzene	<48		140	48	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,1,1-Trichloroethane	<54		140	54	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,1,2-Trichloroethane	<50		140	50	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Trichloroethene	<23		71	23	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Trichlorofluoromethane	<61		140	61	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,2,3-Trichloropropane	<59		280	59	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,2,4-Trimethylbenzene	61	J	140	51	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
1,3,5-Trimethylbenzene	<54		140	54	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Vinyl chloride	<37		140	37	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50
Xylenes, Total	210		71	31	ug/Kg	☼	07/27/20 15:45	08/04/20 14:17	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		75 - 126	07/27/20 15:45	08/04/20 14:17	50
Toluene-d8 (Surr)	97		75 - 120	07/27/20 15:45	08/04/20 14:17	50
4-Bromofluorobenzene (Surr)	91		72 - 124	07/27/20 15:45	08/04/20 14:17	50
Dibromofluoromethane (Surr)	95		75 - 120	07/27/20 15:45	08/04/20 14:17	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	200		41	7.4	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Acenaphthylene	270		41	5.4	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Anthracene	580		41	6.9	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Benzo[a]anthracene	1900		41	5.5	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Benzo[a]pyrene	2500		41	8.0	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Benzo[g,h,i]perylene	1300		41	13	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Chrysene	2500		41	11	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Dibenz(a,h)anthracene	230		41	7.9	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Fluorene	330		41	5.8	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Indeno[1,2,3-cd]pyrene	1300		41	11	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Naphthalene	310		41	6.3	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
Phenanthrene	2800		41	5.7	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
1-Methylnaphthalene	220		83	10	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1
2-Methylnaphthalene	210		83	7.6	ug/Kg	☼	08/06/20 19:02	08/07/20 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	33	X	37 - 147	08/06/20 19:02	08/07/20 13:35	1
Terphenyl-d14 (Surr)	79		42 - 157	08/06/20 19:02	08/07/20 13:35	1
2-Fluorobiphenyl (Surr)	82		43 - 145	08/06/20 19:02	08/07/20 13:35	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	3200		200	44	ug/Kg	☼	08/06/20 19:02	08/07/20 18:16	5
Benzo[k]fluoranthene	1600		200	61	ug/Kg	☼	08/06/20 19:02	08/07/20 18:16	5
Fluoranthene	5000		200	38	ug/Kg	☼	08/06/20 19:02	08/07/20 18:16	5
Pyrene	5300		200	41	ug/Kg	☼	08/06/20 19:02	08/07/20 18:16	5

Definitions/Glossary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

GC/MS VOA

Prep Batch: 555074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-185588-1	SB-01 (3-4)	Total/NA	Solid	5035	
500-185588-3	SB-02 (6-7)	Total/NA	Solid	5035	
500-185588-4	SB-04 (4-6)	Total/NA	Solid	5035	
500-185588-5	SB-03 (5-6)	Total/NA	Solid	5035	
500-185588-6	SB-05 (3-4)	Total/NA	Solid	5035	
500-185588-7	SB-06 (3-4)	Total/NA	Solid	5035	
LB3 500-555074/19-A	Method Blank	Total/NA	Solid	5035	
LCS 500-555074/20-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 555150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB3 500-555074/19-A	Method Blank	Total/NA	Solid	8260B	555074
MB 500-555150/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-555074/20-A	Lab Control Sample	Total/NA	Solid	8260B	555074
LCS 500-555150/4	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 555166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-185588-2	TW-01	Total/NA	Water	8260B	
MB 500-555166/7	Method Blank	Total/NA	Water	8260B	
LCS 500-555166/5	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 555167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-185588-1	SB-01 (3-4)	Total/NA	Solid	8260B	555074
500-185588-3	SB-02 (6-7)	Total/NA	Solid	8260B	555074
500-185588-4	SB-04 (4-6)	Total/NA	Solid	8260B	555074
500-185588-5	SB-03 (5-6)	Total/NA	Solid	8260B	555074
500-185588-6	SB-05 (3-4)	Total/NA	Solid	8260B	555074
500-185588-7	SB-06 (3-4)	Total/NA	Solid	8260B	555074
MB 500-555167/7	Method Blank	Total/NA	Solid	8260B	
LCS 500-555167/5	Lab Control Sample	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 554532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-185588-2	TW-01	Total/NA	Water	3510C	
MB 500-554532/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-554532/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 554681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-554532/1-A	Method Blank	Total/NA	Water	8270D	554532
LCS 500-554532/2-A	Lab Control Sample	Total/NA	Water	8270D	554532

Analysis Batch: 554758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-185588-2	TW-01	Total/NA	Water	8270D	554532

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QC Association Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

GC/MS Semi VOA

Prep Batch: 555746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-185588-1	SB-01 (3-4)	Total/NA	Solid	3541	
500-185588-3	SB-02 (6-7)	Total/NA	Solid	3541	
500-185588-4	SB-04 (4-6)	Total/NA	Solid	3541	
500-185588-5	SB-03 (5-6)	Total/NA	Solid	3541	
500-185588-6	SB-05 (3-4)	Total/NA	Solid	3541	
500-185588-7	SB-06 (3-4)	Total/NA	Solid	3541	
500-185588-7 - DL	SB-06 (3-4)	Total/NA	Solid	3541	
MB 500-555746/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-555746/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 555827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-555746/1-A	Method Blank	Total/NA	Solid	8270D	555746
LCS 500-555746/2-A	Lab Control Sample	Total/NA	Solid	8270D	555746

Analysis Batch: 555850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-185588-1	SB-01 (3-4)	Total/NA	Solid	8270D	555746
500-185588-3	SB-02 (6-7)	Total/NA	Solid	8270D	555746
500-185588-4	SB-04 (4-6)	Total/NA	Solid	8270D	555746
500-185588-5	SB-03 (5-6)	Total/NA	Solid	8270D	555746
500-185588-6	SB-05 (3-4)	Total/NA	Solid	8270D	555746
500-185588-7	SB-06 (3-4)	Total/NA	Solid	8270D	555746
500-185588-7 - DL	SB-06 (3-4)	Total/NA	Solid	8270D	555746

General Chemistry

Analysis Batch: 554804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-185588-1	SB-01 (3-4)	Total/NA	Solid	Moisture	
500-185588-3	SB-02 (6-7)	Total/NA	Solid	Moisture	
500-185588-4	SB-04 (4-6)	Total/NA	Solid	Moisture	
500-185588-5	SB-03 (5-6)	Total/NA	Solid	Moisture	
500-185588-6	SB-05 (3-4)	Total/NA	Solid	Moisture	
500-185588-7	SB-06 (3-4)	Total/NA	Solid	Moisture	

Surrogate Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-126)	TOL (75-120)	BFB (72-124)	DBFM (75-120)
500-185588-1	SB-01 (3-4)	102	99	92	94
500-185588-3	SB-02 (6-7)	104	99	94	94
500-185588-4	SB-04 (4-6)	104	99	94	95
500-185588-5	SB-03 (5-6)	104	97	92	95
500-185588-6	SB-05 (3-4)	104	98	92	96
500-185588-7	SB-06 (3-4)	103	97	91	95
LB3 500-555074/19-A	Method Blank	104	95	89	88
LCS 500-555074/20-A	Lab Control Sample	112	91	87	97
LCS 500-555150/4	Lab Control Sample	108	95	88	94
LCS 500-555167/5	Lab Control Sample	103	99	93	101
MB 500-555150/6	Method Blank	108	94	92	92
MB 500-555167/7	Method Blank	104	99	96	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-126)	TOL (75-120)	BFB (72-124)	DBFM (75-120)
500-185588-2	TW-01	104	100	93	96
LCS 500-555166/5	Lab Control Sample	103	99	93	101
MB 500-555166/7	Method Blank	104	99	96	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		NBZ (37-147)	TPHL (42-157)	FBP (43-145)
500-185588-1	SB-01 (3-4)	72	96	89
500-185588-3	SB-02 (6-7)	63	107	85
500-185588-4	SB-04 (4-6)	55	88	69
500-185588-5	SB-03 (5-6)	56	80	77
500-185588-6	SB-05 (3-4)	59	92	82
500-185588-7	SB-06 (3-4)	33 X	79	82
LCS 500-555746/2-A	Lab Control Sample	100	101	102
MB 500-555746/1-A	Method Blank	97	103	102

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

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Surrogate Summary

Client: CBRE, Inc.

Job ID: 500-185588-1

Project/Site: Wags - FDL Fond du Lac, WI

TPHL = Terphenyl-d14 (Surr)

FBP = 2-Fluorobiphenyl (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	NBZ	TPHL	FBP			
		(36-120)	(40-145)	(34-110)			
500-185588-2	TW-01	73	65	75			
LCS 500-554532/2-A	Lab Control Sample	82	97	83			
MB 500-554532/1-A	Method Blank	86	120	89			

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

FBP = 2-Fluorobiphenyl (Surr)

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LB3 500-555074/19-A
Matrix: Solid
Analysis Batch: 555150

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 555074

Analyte	LB3	LB3	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	<7.3		13	7.3	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Bromobenzene	<18		50	18	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Bromochloromethane	<21		50	21	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Bromodichloromethane	<19		50	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Bromoform	<24		50	24	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Bromomethane	<40		150	40	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
n-Butylbenzene	<19		50	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
sec-Butylbenzene	<20		50	20	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
tert-Butylbenzene	<20		50	20	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Carbon tetrachloride	<19		50	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Chlorobenzene	<19		50	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Dibromochloromethane	<24		50	24	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Chloroethane	<25		50	25	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Chloroform	<19		100	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Chloromethane	<16		50	16	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
2-Chlorotoluene	<16		50	16	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
4-Chlorotoluene	<18		50	18	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,2-Dibromoethane	<19		50	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Dibromomethane	<14		50	14	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,2-Dichlorobenzene	<17		50	17	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,3-Dichlorobenzene	<20		50	20	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,4-Dichlorobenzene	<18		50	18	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Dichlorodifluoromethane	<34		150	34	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,1-Dichloroethane	<21		50	21	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,2-Dichloroethane	<20		50	20	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,1-Dichloroethene	<20		50	20	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
cis-1,2-Dichloroethene	<20		50	20	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
trans-1,2-Dichloroethene	<18		50	18	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,2-Dichloropropane	<21		50	21	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,3-Dichloropropane	<18		50	18	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
2,2-Dichloropropane	<22		50	22	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,1-Dichloropropene	<15		50	15	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
cis-1,3-Dichloropropene	<21		50	21	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
trans-1,3-Dichloropropene	<18		50	18	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Isopropyl ether	<14		50	14	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Ethylbenzene	<9.2		13	9.2	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Hexachlorobutadiene	<22		50	22	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Isopropylbenzene	<19		50	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
p-Isopropyltoluene	<18		50	18	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Methylene Chloride	<82		250	82	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Methyl tert-butyl ether	<20		50	20	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Naphthalene	<17		50	17	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
N-Propylbenzene	<21		50	21	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Styrene	<19		50	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Tetrachloroethene	<19		50	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50

Eurofins TestAmerica, Chicago

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB3 500-555074/19-A
Matrix: Solid
Analysis Batch: 555150

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 555074

Analyte	LB3 Result	LB3 Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<7.4		13	7.4	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,1,1-Trichloroethane	<19		50	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,1,2-Trichloroethane	<18		50	18	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Trichloroethene	<8.2		25	8.2	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Trichlorofluoromethane	<21		50	21	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,2,3-Trichloropropane	<21		100	21	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Vinyl chloride	<13		50	13	ug/Kg		08/03/20 18:33	08/04/20 11:04	50
Xylenes, Total	<11		25	11	ug/Kg		08/03/20 18:33	08/04/20 11:04	50

Surrogate	LB3 %Recovery	LB3 Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 126	08/03/20 18:33	08/04/20 11:04	50
Toluene-d8 (Surr)	95		75 - 120	08/03/20 18:33	08/04/20 11:04	50
4-Bromofluorobenzene (Surr)	89		72 - 124	08/03/20 18:33	08/04/20 11:04	50
Dibromofluoromethane (Surr)	88		75 - 120	08/03/20 18:33	08/04/20 11:04	50

Lab Sample ID: LCS 500-555074/20-A
Matrix: Solid
Analysis Batch: 555150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 555074

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	2500	2210		ug/Kg		89	70 - 120
Bromobenzene	2500	1920		ug/Kg		77	70 - 122
Bromochloromethane	2500	2160		ug/Kg		87	65 - 122
Bromodichloromethane	2500	2020		ug/Kg		81	69 - 120
Bromoform	2500	1530		ug/Kg		61	56 - 132
Bromomethane	2500	2120		ug/Kg		85	40 - 152
n-Butylbenzene	2500	2230		ug/Kg		89	68 - 125
sec-Butylbenzene	2500	2170		ug/Kg		87	70 - 123
tert-Butylbenzene	2500	2110		ug/Kg		84	70 - 121
Carbon tetrachloride	2500	2110		ug/Kg		84	59 - 133
Chlorobenzene	2500	2130		ug/Kg		85	70 - 120
Dibromochloromethane	2500	1710		ug/Kg		68	68 - 125
Chloroethane	2500	2270		ug/Kg		91	48 - 136
Chloroform	2500	2200		ug/Kg		88	70 - 120
Chloromethane	2500	1620		ug/Kg		65	56 - 152
2-Chlorotoluene	2500	2010		ug/Kg		80	70 - 125
4-Chlorotoluene	2500	2050		ug/Kg		82	68 - 124
1,2-Dibromo-3-Chloropropane	2500	1280 *		ug/Kg		51	56 - 123
1,2-Dibromoethane	2500	1880		ug/Kg		75	70 - 125
Dibromomethane	2500	2140		ug/Kg		86	70 - 120
1,2-Dichlorobenzene	2500	2020		ug/Kg		81	70 - 125
1,3-Dichlorobenzene	2500	2080		ug/Kg		83	70 - 125
1,4-Dichlorobenzene	2500	2050		ug/Kg		82	70 - 120
Dichlorodifluoromethane	2500	1120		ug/Kg		45	40 - 159

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QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-555074/20-A
Matrix: Solid
Analysis Batch: 555150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 555074

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	2500	2280		ug/Kg		91	70 - 125
1,2-Dichloroethane	2500	2650		ug/Kg		106	68 - 127
1,1-Dichloroethene	2500	1880		ug/Kg		75	67 - 122
cis-1,2-Dichloroethene	2500	2140		ug/Kg		85	70 - 125
trans-1,2-Dichloroethene	2500	2090		ug/Kg		84	70 - 125
1,2-Dichloropropane	2500	2370		ug/Kg		95	67 - 130
1,3-Dichloropropane	2500	1910		ug/Kg		76	62 - 136
2,2-Dichloropropane	2500	2170		ug/Kg		87	58 - 139
1,1-Dichloropropene	2500	2160		ug/Kg		86	70 - 121
cis-1,3-Dichloropropene	2500	1800		ug/Kg		72	64 - 127
trans-1,3-Dichloropropene	2500	1750		ug/Kg		70	62 - 128
Ethylbenzene	2500	2260		ug/Kg		90	70 - 123
Hexachlorobutadiene	2500	2520		ug/Kg		101	51 - 150
Isopropylbenzene	2500	2030		ug/Kg		81	70 - 126
p-Isopropyltoluene	2500	2250		ug/Kg		90	70 - 125
Methylene Chloride	2500	1960		ug/Kg		79	69 - 125
Methyl tert-butyl ether	2500	2240		ug/Kg		90	55 - 123
Naphthalene	2500	1740		ug/Kg		70	53 - 144
N-Propylbenzene	2500	2060		ug/Kg		82	69 - 127
Styrene	2500	2140		ug/Kg		86	70 - 120
1,1,1,2-Tetrachloroethane	2500	1970		ug/Kg		79	70 - 125
1,1,1,2,2-Tetrachloroethane	2500	1580		ug/Kg		63	62 - 140
Tetrachloroethene	2500	2180		ug/Kg		87	70 - 128
Toluene	2500	2100		ug/Kg		84	70 - 125
1,2,3-Trichlorobenzene	2500	1990		ug/Kg		80	51 - 145
1,2,4-Trichlorobenzene	2500	2010		ug/Kg		80	57 - 137
1,1,1-Trichloroethane	2500	2170		ug/Kg		87	70 - 125
1,1,2-Trichloroethane	2500	1870		ug/Kg		75	71 - 130
Trichloroethene	2500	2210		ug/Kg		88	70 - 125
Trichlorofluoromethane	2500	1940		ug/Kg		77	55 - 128
1,2,3-Trichloropropane	2500	1650		ug/Kg		66	50 - 133
1,2,4-Trimethylbenzene	2500	2120		ug/Kg		85	70 - 123
1,3,5-Trimethylbenzene	2500	2120		ug/Kg		85	70 - 123
Vinyl chloride	2500	1730		ug/Kg		69	64 - 126
Xylenes, Total	5000	4540		ug/Kg		91	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		75 - 126
Toluene-d8 (Surr)	91		75 - 120
4-Bromofluorobenzene (Surr)	87		72 - 124
Dibromofluoromethane (Surr)	97		75 - 120

Lab Sample ID: MB 500-555150/6
Matrix: Solid
Analysis Batch: 555150

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.25	0.15	ug/Kg			08/04/20 10:37	1

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QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-555150/6
Matrix: Solid
Analysis Batch: 555150

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bromobenzene	<0.36		1.0	0.36	ug/Kg			08/04/20 10:37	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			08/04/20 10:37	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			08/04/20 10:37	1
Bromoform	<0.48		1.0	0.48	ug/Kg			08/04/20 10:37	1
Bromomethane	<0.80		3.0	0.80	ug/Kg			08/04/20 10:37	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			08/04/20 10:37	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			08/04/20 10:37	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			08/04/20 10:37	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			08/04/20 10:37	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			08/04/20 10:37	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			08/04/20 10:37	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			08/04/20 10:37	1
Chloroform	<0.37		2.0	0.37	ug/Kg			08/04/20 10:37	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			08/04/20 10:37	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			08/04/20 10:37	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			08/04/20 10:37	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			08/04/20 10:37	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			08/04/20 10:37	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			08/04/20 10:37	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			08/04/20 10:37	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			08/04/20 10:37	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			08/04/20 10:37	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/Kg			08/04/20 10:37	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			08/04/20 10:37	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			08/04/20 10:37	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			08/04/20 10:37	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			08/04/20 10:37	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			08/04/20 10:37	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			08/04/20 10:37	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			08/04/20 10:37	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			08/04/20 10:37	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			08/04/20 10:37	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			08/04/20 10:37	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			08/04/20 10:37	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			08/04/20 10:37	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			08/04/20 10:37	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			08/04/20 10:37	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			08/04/20 10:37	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			08/04/20 10:37	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			08/04/20 10:37	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			08/04/20 10:37	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			08/04/20 10:37	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			08/04/20 10:37	1
Styrene	<0.39		1.0	0.39	ug/Kg			08/04/20 10:37	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			08/04/20 10:37	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			08/04/20 10:37	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			08/04/20 10:37	1
Toluene	<0.15		0.25	0.15	ug/Kg			08/04/20 10:37	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			08/04/20 10:37	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-555150/6
Matrix: Solid
Analysis Batch: 555150

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			08/04/20 10:37	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			08/04/20 10:37	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			08/04/20 10:37	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			08/04/20 10:37	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			08/04/20 10:37	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/Kg			08/04/20 10:37	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			08/04/20 10:37	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			08/04/20 10:37	1
Vinyl chloride	<0.26		1.0	0.26	ug/Kg			08/04/20 10:37	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			08/04/20 10:37	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	108		75 - 126		08/04/20 10:37	1
Toluene-d8 (Surr)	94		75 - 120		08/04/20 10:37	1
4-Bromofluorobenzene (Surr)	92		72 - 124		08/04/20 10:37	1
Dibromofluoromethane (Surr)	92		75 - 120		08/04/20 10:37	1

Lab Sample ID: LCS 500-555150/4
Matrix: Solid
Analysis Batch: 555150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Benzene	50.0	45.6		ug/Kg		91	70 - 120
Bromobenzene	50.0	40.1		ug/Kg		80	70 - 122
Bromochloromethane	50.0	43.2		ug/Kg		86	65 - 122
Bromodichloromethane	50.0	41.6		ug/Kg		83	69 - 120
Bromoform	50.0	33.2		ug/Kg		66	56 - 132
Bromomethane	50.0	55.1		ug/Kg		110	40 - 152
n-Butylbenzene	50.0	50.3		ug/Kg		101	68 - 125
sec-Butylbenzene	50.0	48.8		ug/Kg		98	70 - 123
tert-Butylbenzene	50.0	46.9		ug/Kg		94	70 - 121
Carbon tetrachloride	50.0	47.4		ug/Kg		95	59 - 133
Chlorobenzene	50.0	45.2		ug/Kg		90	70 - 120
Dibromochloromethane	50.0	36.9		ug/Kg		74	68 - 125
Chloroethane	50.0	58.9		ug/Kg		118	48 - 136
Chloroform	50.0	44.4		ug/Kg		89	70 - 120
Chloromethane	50.0	51.1		ug/Kg		102	56 - 152
2-Chlorotoluene	50.0	43.4		ug/Kg		87	70 - 125
4-Chlorotoluene	50.0	43.9		ug/Kg		88	68 - 124
1,2-Dibromo-3-Chloropropane	50.0	26.4	*	ug/Kg		53	56 - 123
1,2-Dibromoethane	50.0	38.9		ug/Kg		78	70 - 125
Dibromomethane	50.0	42.7		ug/Kg		85	70 - 120
1,2-Dichlorobenzene	50.0	41.9		ug/Kg		84	70 - 125
1,3-Dichlorobenzene	50.0	43.6		ug/Kg		87	70 - 125
1,4-Dichlorobenzene	50.0	43.1		ug/Kg		86	70 - 120
Dichlorodifluoromethane	50.0	59.2		ug/Kg		118	40 - 159
1,1-Dichloroethane	50.0	47.7		ug/Kg		95	70 - 125
1,2-Dichloroethane	50.0	53.0		ug/Kg		106	68 - 127

Eurofins TestAmerica, Chicago

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-555150/4
Matrix: Solid
Analysis Batch: 555150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	50.0	42.7		ug/Kg		85	67 - 122
cis-1,2-Dichloroethene	50.0	43.5		ug/Kg		87	70 - 125
trans-1,2-Dichloroethene	50.0	45.1		ug/Kg		90	70 - 125
1,2-Dichloropropane	50.0	47.3		ug/Kg		95	67 - 130
1,3-Dichloropropane	50.0	40.0		ug/Kg		80	62 - 136
2,2-Dichloropropane	50.0	51.3		ug/Kg		103	58 - 139
1,1-Dichloropropene	50.0	47.1		ug/Kg		94	70 - 121
cis-1,3-Dichloropropene	50.0	38.8		ug/Kg		78	64 - 127
trans-1,3-Dichloropropene	50.0	37.4		ug/Kg		75	62 - 128
Ethylbenzene	50.0	48.7		ug/Kg		97	70 - 123
Hexachlorobutadiene	50.0	54.9		ug/Kg		110	51 - 150
Isopropylbenzene	50.0	45.0		ug/Kg		90	70 - 126
p-Isopropyltoluene	50.0	49.9		ug/Kg		100	70 - 125
Methylene Chloride	50.0	39.5		ug/Kg		79	69 - 125
Methyl tert-butyl ether	50.0	44.6		ug/Kg		89	55 - 123
Naphthalene	50.0	34.5		ug/Kg		69	53 - 144
N-Propylbenzene	50.0	45.7		ug/Kg		91	69 - 127
Styrene	50.0	44.5		ug/Kg		89	70 - 120
1,1,1,2-Tetrachloroethane	50.0	42.4		ug/Kg		85	70 - 125
1,1,1,2,2-Tetrachloroethane	50.0	33.1		ug/Kg		66	62 - 140
Tetrachloroethene	50.0	50.0		ug/Kg		100	70 - 128
Toluene	50.0	45.6		ug/Kg		91	70 - 125
1,2,3-Trichlorobenzene	50.0	40.1		ug/Kg		80	51 - 145
1,2,4-Trichlorobenzene	50.0	41.3		ug/Kg		83	57 - 137
1,1,1-Trichloroethane	50.0	46.9		ug/Kg		94	70 - 125
1,1,2-Trichloroethane	50.0	39.1		ug/Kg		78	71 - 130
Trichloroethene	50.0	47.3		ug/Kg		95	70 - 125
Trichlorofluoromethane	50.0	49.9		ug/Kg		100	55 - 128
1,2,3-Trichloropropane	50.0	35.0		ug/Kg		70	50 - 133
1,2,4-Trimethylbenzene	50.0	45.5		ug/Kg		91	70 - 123
1,3,5-Trimethylbenzene	50.0	46.2		ug/Kg		92	70 - 123
Vinyl chloride	50.0	53.0		ug/Kg		106	64 - 126
Xylenes, Total	100	97.2		ug/Kg		97	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		75 - 126
Toluene-d8 (Surr)	95		75 - 120
4-Bromofluorobenzene (Surr)	88		72 - 124
Dibromofluoromethane (Surr)	94		75 - 120

Lab Sample ID: MB 500-555166/7
Matrix: Water
Analysis Batch: 555166

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			08/04/20 10:48	1
Bromobenzene	<0.36		1.0	0.36	ug/L			08/04/20 10:48	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			08/04/20 10:48	1

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QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-555166/7
Matrix: Water
Analysis Batch: 555166

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bromodichloromethane	<0.37		1.0	0.37	ug/L			08/04/20 10:48	1
Bromoform	<0.48		1.0	0.48	ug/L			08/04/20 10:48	1
Bromomethane	<0.80		3.0	0.80	ug/L			08/04/20 10:48	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			08/04/20 10:48	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			08/04/20 10:48	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			08/04/20 10:48	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			08/04/20 10:48	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			08/04/20 10:48	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			08/04/20 10:48	1
Chloroethane	<0.51		1.0	0.51	ug/L			08/04/20 10:48	1
Chloroform	<0.37		2.0	0.37	ug/L			08/04/20 10:48	1
Chloromethane	<0.32		1.0	0.32	ug/L			08/04/20 10:48	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			08/04/20 10:48	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			08/04/20 10:48	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			08/04/20 10:48	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/L			08/04/20 10:48	1
Dibromomethane	<0.27		1.0	0.27	ug/L			08/04/20 10:48	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			08/04/20 10:48	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			08/04/20 10:48	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			08/04/20 10:48	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			08/04/20 10:48	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			08/04/20 10:48	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			08/04/20 10:48	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			08/04/20 10:48	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/04/20 10:48	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/04/20 10:48	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			08/04/20 10:48	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			08/04/20 10:48	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			08/04/20 10:48	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			08/04/20 10:48	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			08/04/20 10:48	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			08/04/20 10:48	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			08/04/20 10:48	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			08/04/20 10:48	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			08/04/20 10:48	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			08/04/20 10:48	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			08/04/20 10:48	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			08/04/20 10:48	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			08/04/20 10:48	1
Naphthalene	<0.34		1.0	0.34	ug/L			08/04/20 10:48	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			08/04/20 10:48	1
Styrene	<0.39		1.0	0.39	ug/L			08/04/20 10:48	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			08/04/20 10:48	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			08/04/20 10:48	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/04/20 10:48	1
Toluene	<0.15		0.50	0.15	ug/L			08/04/20 10:48	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			08/04/20 10:48	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			08/04/20 10:48	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/04/20 10:48	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-555166/7
Matrix: Water
Analysis Batch: 555166

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/04/20 10:48	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/04/20 10:48	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			08/04/20 10:48	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			08/04/20 10:48	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			08/04/20 10:48	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			08/04/20 10:48	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/04/20 10:48	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			08/04/20 10:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 126		08/04/20 10:48	1
Toluene-d8 (Surr)	99		75 - 120		08/04/20 10:48	1
4-Bromofluorobenzene (Surr)	96		72 - 124		08/04/20 10:48	1
Dibromofluoromethane (Surr)	98		75 - 120		08/04/20 10:48	1

Lab Sample ID: LCS 500-555166/5
Matrix: Water
Analysis Batch: 555166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	44.0		ug/L		88	70 - 120
Bromobenzene	50.0	44.1		ug/L		88	70 - 122
Bromochloromethane	50.0	45.4		ug/L		91	65 - 122
Bromodichloromethane	50.0	41.6		ug/L		83	69 - 120
Bromoform	50.0	40.3		ug/L		81	56 - 132
Bromomethane	50.0	52.8		ug/L		106	40 - 152
n-Butylbenzene	50.0	41.7		ug/L		83	68 - 125
sec-Butylbenzene	50.0	42.0		ug/L		84	70 - 123
tert-Butylbenzene	50.0	42.6		ug/L		85	70 - 121
Carbon tetrachloride	50.0	46.4		ug/L		93	59 - 133
Chlorobenzene	50.0	43.7		ug/L		87	70 - 120
Dibromochloromethane	50.0	41.1		ug/L		82	68 - 125
Chloroethane	50.0	56.0		ug/L		112	48 - 136
Chloroform	50.0	40.9		ug/L		82	70 - 120
Chloromethane	50.0	46.2		ug/L		92	56 - 152
2-Chlorotoluene	50.0	42.2		ug/L		84	70 - 125
4-Chlorotoluene	50.0	42.2		ug/L		84	68 - 124
1,2-Dibromo-3-Chloropropane	50.0	29.8		ug/L		60	56 - 123
1,2-Dibromoethane	50.0	42.6		ug/L		85	70 - 125
Dibromomethane	50.0	43.3		ug/L		87	70 - 120
1,2-Dichlorobenzene	50.0	42.5		ug/L		85	70 - 125
1,3-Dichlorobenzene	50.0	43.3		ug/L		87	70 - 125
1,4-Dichlorobenzene	50.0	42.8		ug/L		86	70 - 120
Dichlorodifluoromethane	50.0	42.3		ug/L		85	40 - 159
1,1-Dichloroethane	50.0	50.4		ug/L		101	70 - 125
1,2-Dichloroethane	50.0	46.7		ug/L		93	68 - 127
1,1-Dichloroethene	50.0	45.1		ug/L		90	67 - 122
cis-1,2-Dichloroethene	50.0	44.3		ug/L		89	70 - 125

Eurofins TestAmerica, Chicago

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-555166/5
Matrix: Water
Analysis Batch: 555166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	50.0	45.6		ug/L		91	70 - 125
1,2-Dichloropropane	50.0	52.0		ug/L		104	67 - 130
1,3-Dichloropropane	50.0	40.7		ug/L		81	62 - 136
2,2-Dichloropropane	50.0	46.7		ug/L		93	58 - 139
1,1-Dichloropropene	50.0	43.9		ug/L		88	70 - 121
cis-1,3-Dichloropropene	50.0	41.1		ug/L		82	64 - 127
trans-1,3-Dichloropropene	50.0	40.2		ug/L		80	62 - 128
Ethylbenzene	50.0	43.9		ug/L		88	70 - 123
Hexachlorobutadiene	50.0	43.2		ug/L		86	51 - 150
Isopropylbenzene	50.0	44.2		ug/L		88	70 - 126
p-Isopropyltoluene	50.0	42.2		ug/L		84	70 - 125
Methylene Chloride	50.0	43.0		ug/L		86	69 - 125
Methyl tert-butyl ether	50.0	36.1		ug/L		72	55 - 123
Naphthalene	50.0	38.9		ug/L		78	53 - 144
N-Propylbenzene	50.0	43.2		ug/L		86	69 - 127
Styrene	50.0	42.4		ug/L		85	70 - 120
1,1,1,2-Tetrachloroethane	50.0	43.1		ug/L		86	70 - 125
1,1,1,2,2-Tetrachloroethane	50.0	39.8		ug/L		80	62 - 140
Tetrachloroethene	50.0	46.4		ug/L		93	70 - 128
Toluene	50.0	43.8		ug/L		88	70 - 125
1,2,3-Trichlorobenzene	50.0	43.6		ug/L		87	51 - 145
1,2,4-Trichlorobenzene	50.0	42.8		ug/L		86	57 - 137
1,1,1-Trichloroethane	50.0	45.5		ug/L		91	70 - 125
1,1,2-Trichloroethane	50.0	43.2		ug/L		86	71 - 130
Trichloroethene	50.0	46.7		ug/L		93	70 - 125
Trichlorofluoromethane	50.0	47.9		ug/L		96	55 - 128
1,2,3-Trichloropropane	50.0	43.7		ug/L		87	50 - 133
1,2,4-Trimethylbenzene	50.0	41.8		ug/L		84	70 - 123
1,3,5-Trimethylbenzene	50.0	42.7		ug/L		85	70 - 123
Vinyl chloride	50.0	55.3		ug/L		111	64 - 126
Xylenes, Total	100	85.3		ug/L		85	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		75 - 126
Toluene-d8 (Surr)	99		75 - 120
4-Bromofluorobenzene (Surr)	93		72 - 124
Dibromofluoromethane (Surr)	101		75 - 120

Lab Sample ID: MB 500-555167/7
Matrix: Solid
Analysis Batch: 555167

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.25	0.15	ug/Kg			08/04/20 10:48	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			08/04/20 10:48	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			08/04/20 10:48	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			08/04/20 10:48	1
Bromoform	<0.48		1.0	0.48	ug/Kg			08/04/20 10:48	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-555167/7

Matrix: Solid

Analysis Batch: 555167

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bromomethane	<0.80		3.0	0.80	ug/Kg			08/04/20 10:48	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			08/04/20 10:48	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			08/04/20 10:48	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			08/04/20 10:48	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			08/04/20 10:48	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			08/04/20 10:48	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			08/04/20 10:48	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			08/04/20 10:48	1
Chloroform	<0.37		2.0	0.37	ug/Kg			08/04/20 10:48	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			08/04/20 10:48	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			08/04/20 10:48	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			08/04/20 10:48	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			08/04/20 10:48	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			08/04/20 10:48	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			08/04/20 10:48	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			08/04/20 10:48	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			08/04/20 10:48	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			08/04/20 10:48	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/Kg			08/04/20 10:48	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			08/04/20 10:48	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			08/04/20 10:48	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			08/04/20 10:48	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			08/04/20 10:48	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			08/04/20 10:48	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			08/04/20 10:48	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			08/04/20 10:48	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			08/04/20 10:48	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			08/04/20 10:48	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			08/04/20 10:48	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			08/04/20 10:48	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			08/04/20 10:48	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			08/04/20 10:48	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			08/04/20 10:48	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			08/04/20 10:48	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			08/04/20 10:48	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			08/04/20 10:48	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			08/04/20 10:48	1
Naphthalene	<0.33		1.0	0.33	ug/Kg			08/04/20 10:48	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			08/04/20 10:48	1
Styrene	<0.39		1.0	0.39	ug/Kg			08/04/20 10:48	1
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			08/04/20 10:48	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			08/04/20 10:48	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			08/04/20 10:48	1
Toluene	<0.15		0.25	0.15	ug/Kg			08/04/20 10:48	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			08/04/20 10:48	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			08/04/20 10:48	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			08/04/20 10:48	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			08/04/20 10:48	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			08/04/20 10:48	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-555167/7

Matrix: Solid

Analysis Batch: 555167

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			08/04/20 10:48	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/Kg			08/04/20 10:48	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			08/04/20 10:48	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			08/04/20 10:48	1
Vinyl chloride	<0.26		1.0	0.26	ug/Kg			08/04/20 10:48	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			08/04/20 10:48	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	104		75 - 126		08/04/20 10:48	1
Toluene-d8 (Surr)	99		75 - 120		08/04/20 10:48	1
4-Bromofluorobenzene (Surr)	96		72 - 124		08/04/20 10:48	1
Dibromofluoromethane (Surr)	98		75 - 120		08/04/20 10:48	1

Lab Sample ID: LCS 500-555167/5

Matrix: Solid

Analysis Batch: 555167

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	50.0	44.0		ug/Kg		88	70 - 120
Bromobenzene	50.0	44.1		ug/Kg		88	70 - 122
Bromochloromethane	50.0	45.4		ug/Kg		91	65 - 122
Bromodichloromethane	50.0	41.6		ug/Kg		83	69 - 120
Bromoform	50.0	40.3		ug/Kg		81	56 - 132
Bromomethane	50.0	52.8		ug/Kg		106	40 - 152
n-Butylbenzene	50.0	41.7		ug/Kg		83	68 - 125
sec-Butylbenzene	50.0	42.0		ug/Kg		84	70 - 123
tert-Butylbenzene	50.0	42.6		ug/Kg		85	70 - 121
Carbon tetrachloride	50.0	46.4		ug/Kg		93	59 - 133
Chlorobenzene	50.0	43.7		ug/Kg		87	70 - 120
Dibromochloromethane	50.0	41.1		ug/Kg		82	68 - 125
Chloroethane	50.0	56.0		ug/Kg		112	48 - 136
Chloroform	50.0	40.9		ug/Kg		82	70 - 120
Chloromethane	50.0	46.2		ug/Kg		92	56 - 152
2-Chlorotoluene	50.0	42.2		ug/Kg		84	70 - 125
4-Chlorotoluene	50.0	42.2		ug/Kg		84	68 - 124
1,2-Dibromo-3-Chloropropane	50.0	29.8		ug/Kg		60	56 - 123
1,2-Dibromoethane	50.0	42.6		ug/Kg		85	70 - 125
Dibromomethane	50.0	43.3		ug/Kg		87	70 - 120
1,2-Dichlorobenzene	50.0	42.5		ug/Kg		85	70 - 125
1,3-Dichlorobenzene	50.0	43.3		ug/Kg		87	70 - 125
1,4-Dichlorobenzene	50.0	42.8		ug/Kg		86	70 - 120
Dichlorodifluoromethane	50.0	42.3		ug/Kg		85	40 - 159
1,1-Dichloroethane	50.0	50.4		ug/Kg		101	70 - 125
1,2-Dichloroethane	50.0	46.7		ug/Kg		93	68 - 127
1,1-Dichloroethene	50.0	45.1		ug/Kg		90	67 - 122
cis-1,2-Dichloroethene	50.0	44.3		ug/Kg		89	70 - 125
trans-1,2-Dichloroethene	50.0	45.6		ug/Kg		91	70 - 125
1,2-Dichloropropane	50.0	52.0		ug/Kg		104	67 - 130

Eurofins TestAmerica, Chicago

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-555167/5
Matrix: Solid
Analysis Batch: 555167

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	50.0	40.7		ug/Kg		81	62 - 136
2,2-Dichloropropane	50.0	46.7		ug/Kg		93	58 - 139
1,1-Dichloropropene	50.0	43.9		ug/Kg		88	70 - 121
cis-1,3-Dichloropropene	50.0	41.1		ug/Kg		82	64 - 127
trans-1,3-Dichloropropene	50.0	40.2		ug/Kg		80	62 - 128
Ethylbenzene	50.0	43.9		ug/Kg		88	70 - 123
Hexachlorobutadiene	50.0	43.2		ug/Kg		86	51 - 150
Isopropylbenzene	50.0	44.2		ug/Kg		88	70 - 126
p-Isopropyltoluene	50.0	42.2		ug/Kg		84	70 - 125
Methylene Chloride	50.0	43.0		ug/Kg		86	69 - 125
Methyl tert-butyl ether	50.0	36.1		ug/Kg		72	55 - 123
Naphthalene	50.0	38.9		ug/Kg		78	53 - 144
N-Propylbenzene	50.0	43.2		ug/Kg		86	69 - 127
Styrene	50.0	42.4		ug/Kg		85	70 - 120
1,1,1,2-Tetrachloroethane	50.0	43.1		ug/Kg		86	70 - 125
1,1,2,2-Tetrachloroethane	50.0	39.8		ug/Kg		80	62 - 140
Tetrachloroethene	50.0	46.4		ug/Kg		93	70 - 128
Toluene	50.0	43.8		ug/Kg		88	70 - 125
1,2,3-Trichlorobenzene	50.0	43.6		ug/Kg		87	51 - 145
1,2,4-Trichlorobenzene	50.0	42.8		ug/Kg		86	57 - 137
1,1,1-Trichloroethane	50.0	45.5		ug/Kg		91	70 - 125
1,1,2-Trichloroethane	50.0	43.2		ug/Kg		86	71 - 130
Trichloroethene	50.0	46.7		ug/Kg		93	70 - 125
Trichlorofluoromethane	50.0	47.9		ug/Kg		96	55 - 128
1,2,3-Trichloropropane	50.0	43.7		ug/Kg		87	50 - 133
1,2,4-Trimethylbenzene	50.0	41.8		ug/Kg		84	70 - 123
1,3,5-Trimethylbenzene	50.0	42.7		ug/Kg		85	70 - 123
Vinyl chloride	50.0	55.3		ug/Kg		111	64 - 126
Xylenes, Total	100	85.3		ug/Kg		85	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		75 - 126
Toluene-d8 (Surr)	99		75 - 120
4-Bromofluorobenzene (Surr)	93		72 - 124
Dibromofluoromethane (Surr)	101		75 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-554532/1-A
Matrix: Water
Analysis Batch: 554681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 554532

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.25		0.80	0.25	ug/L		07/30/20 08:04	07/31/20 00:33	1
Acenaphthylene	<0.21		0.80	0.21	ug/L		07/30/20 08:04	07/31/20 00:33	1
Anthracene	<0.27		0.80	0.27	ug/L		07/30/20 08:04	07/31/20 00:33	1
Benzo[a]anthracene	<0.045		0.16	0.045	ug/L		07/30/20 08:04	07/31/20 00:33	1
Benzo[a]pyrene	<0.079		0.16	0.079	ug/L		07/30/20 08:04	07/31/20 00:33	1
Benzo[b]fluoranthene	<0.065		0.16	0.065	ug/L		07/30/20 08:04	07/31/20 00:33	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-554532/1-A
Matrix: Water
Analysis Batch: 554681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 554532

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	<0.30		0.80	0.30	ug/L		07/30/20 08:04	07/31/20 00:33	1
Benzo[k]fluoranthene	<0.051		0.16	0.051	ug/L		07/30/20 08:04	07/31/20 00:33	1
Chrysene	<0.055		0.16	0.055	ug/L		07/30/20 08:04	07/31/20 00:33	1
Dibenz(a,h)anthracene	<0.041		0.24	0.041	ug/L		07/30/20 08:04	07/31/20 00:33	1
Fluoranthene	<0.36		0.80	0.36	ug/L		07/30/20 08:04	07/31/20 00:33	1
Fluorene	<0.20		0.80	0.20	ug/L		07/30/20 08:04	07/31/20 00:33	1
Indeno[1,2,3-cd]pyrene	<0.060		0.16	0.060	ug/L		07/30/20 08:04	07/31/20 00:33	1
Naphthalene	<0.25		0.80	0.25	ug/L		07/30/20 08:04	07/31/20 00:33	1
Phenanthrene	<0.24		0.80	0.24	ug/L		07/30/20 08:04	07/31/20 00:33	1
Pyrene	<0.34		0.80	0.34	ug/L		07/30/20 08:04	07/31/20 00:33	1
1-Methylnaphthalene	<0.24		1.6	0.24	ug/L		07/30/20 08:04	07/31/20 00:33	1
2-Methylnaphthalene	<0.052		1.6	0.052	ug/L		07/30/20 08:04	07/31/20 00:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	86		36 - 120	07/30/20 08:04	07/31/20 00:33	1
Terphenyl-d14 (Surr)	120		40 - 145	07/30/20 08:04	07/31/20 00:33	1
2-Fluorobiphenyl (Surr)	89		34 - 110	07/30/20 08:04	07/31/20 00:33	1

Lab Sample ID: LCS 500-554532/2-A
Matrix: Water
Analysis Batch: 554681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 554532

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	32.0	21.6		ug/L		68	46 - 110
Acenaphthylene	32.0	22.2		ug/L		69	47 - 113
Anthracene	32.0	28.1		ug/L		88	67 - 118
Benzo[a]anthracene	32.0	31.0		ug/L		97	70 - 126
Benzo[a]pyrene	32.0	31.0		ug/L		97	70 - 135
Benzo[b]fluoranthene	32.0	33.4		ug/L		104	69 - 136
Benzo[g,h,i]perylene	32.0	32.4		ug/L		101	70 - 135
Benzo[k]fluoranthene	32.0	33.0		ug/L		103	70 - 133
Chrysene	32.0	29.4		ug/L		92	68 - 129
Dibenz(a,h)anthracene	32.0	34.8		ug/L		109	70 - 134
Fluoranthene	32.0	29.8		ug/L		93	68 - 126
Fluorene	32.0	24.5		ug/L		77	53 - 120
Indeno[1,2,3-cd]pyrene	32.0	34.6		ug/L		108	65 - 133
Naphthalene	32.0	18.7		ug/L		58	36 - 110
Phenanthrene	32.0	28.2		ug/L		88	65 - 120
Pyrene	32.0	29.5		ug/L		92	70 - 126
1-Methylnaphthalene	32.0	18.9		ug/L		59	38 - 110
2-Methylnaphthalene	32.0	19.5		ug/L		61	34 - 110

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	82		36 - 120
Terphenyl-d14 (Surr)	97		40 - 145
2-Fluorobiphenyl (Surr)	83		34 - 110

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-555746/1-A
Matrix: Solid
Analysis Batch: 555827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 555746

Analyte	MB	MB	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	<6.0		33	6.0	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Acenaphthylene	<4.4		33	4.4	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Anthracene	<5.6		33	5.6	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Benzo[a]anthracene	<4.5		33	4.5	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Benzo[a]pyrene	<6.4		33	6.4	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Benzo[b]fluoranthene	<7.2		33	7.2	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Benzo[g,h,i]perylene	<11		33	11	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Benzo[k]fluoranthene	<9.8		33	9.8	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Chrysene	<9.1		33	9.1	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Dibenz(a,h)anthracene	<6.4		33	6.4	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Fluoranthene	<6.2		33	6.2	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Fluorene	<4.7		33	4.7	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Indeno[1,2,3-cd]pyrene	<8.6		33	8.6	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Naphthalene	<5.1		33	5.1	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Phenanthrene	<4.6		33	4.6	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
Pyrene	<6.6		33	6.6	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
1-Methylnaphthalene	<8.1		67	8.1	ug/Kg		08/06/20 19:02	08/07/20 10:58	1
2-Methylnaphthalene	<6.1		67	6.1	ug/Kg		08/06/20 19:02	08/07/20 10:58	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5 (Surr)	97		37 - 147	08/06/20 19:02	08/07/20 10:58	1
Terphenyl-d14 (Surr)	103		42 - 157	08/06/20 19:02	08/07/20 10:58	1
2-Fluorobiphenyl (Surr)	102		43 - 145	08/06/20 19:02	08/07/20 10:58	1

Lab Sample ID: LCS 500-555746/2-A
Matrix: Solid
Analysis Batch: 555827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 555746

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Acenaphthene	1330	1340		ug/Kg		100	65 - 124
Acenaphthylene	1330	1330		ug/Kg		100	68 - 120
Anthracene	1330	1370		ug/Kg		103	70 - 114
Benzo[a]anthracene	1330	1280		ug/Kg		96	67 - 122
Benzo[a]pyrene	1330	1410		ug/Kg		106	65 - 133
Benzo[b]fluoranthene	1330	1340		ug/Kg		101	69 - 129
Benzo[g,h,i]perylene	1330	1420		ug/Kg		107	72 - 131
Benzo[k]fluoranthene	1330	1420		ug/Kg		107	68 - 127
Chrysene	1330	1340		ug/Kg		100	63 - 120
Dibenz(a,h)anthracene	1330	1450		ug/Kg		108	64 - 131
Fluoranthene	1330	1380		ug/Kg		104	62 - 120
Fluorene	1330	1330		ug/Kg		100	62 - 120
Indeno[1,2,3-cd]pyrene	1330	1450		ug/Kg		108	68 - 130
Naphthalene	1330	1310		ug/Kg		99	63 - 110
Phenanthrene	1330	1350		ug/Kg		101	62 - 120
Pyrene	1330	1380		ug/Kg		104	61 - 128
1-Methylnaphthalene	1330	1310		ug/Kg		98	68 - 111
2-Methylnaphthalene	1330	1320		ug/Kg		99	69 - 112

Eurofins TestAmerica, Chicago

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-555746/2-A
Matrix: Solid
Analysis Batch: 555827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 555746

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5 (Surr)	100		37 - 147
Terphenyl-d14 (Surr)	101		42 - 157
2-Fluorobiphenyl (Surr)	102		43 - 145

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Lab Chronicle

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-01 (3-4)

Date Collected: 07/27/20 11:00

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	554804	07/31/20 11:49	LWN	TAL CHI

Client Sample ID: SB-01 (3-4)

Date Collected: 07/27/20 11:00

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-1

Matrix: Solid

Percent Solids: 74.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			555074	07/27/20 11:00	EMA	TAL CHI
Total/NA	Analysis	8260B		50	555167	08/04/20 12:07	STW	TAL CHI
Total/NA	Prep	3541			555746	08/06/20 19:02	JP1	TAL CHI
Total/NA	Analysis	8270D		1	555850	08/07/20 13:59	AJD	TAL CHI

Client Sample ID: TW-01

Date Collected: 07/27/20 12:15

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	555166	08/04/20 14:43	STW	TAL CHI
Total/NA	Prep	3510C			554532	07/30/20 08:04	DAK	TAL CHI
Total/NA	Analysis	8270D		1	554758	07/31/20 18:37	AJD	TAL CHI

Client Sample ID: SB-02 (6-7)

Date Collected: 07/27/20 12:05

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	554804	07/31/20 11:49	LWN	TAL CHI

Client Sample ID: SB-02 (6-7)

Date Collected: 07/27/20 12:05

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-3

Matrix: Solid

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			555074	07/27/20 12:05	EMA	TAL CHI
Total/NA	Analysis	8260B		50	555167	08/04/20 12:33	STW	TAL CHI
Total/NA	Prep	3541			555746	08/06/20 19:02	JP1	TAL CHI
Total/NA	Analysis	8270D		1	555850	08/07/20 12:25	AJD	TAL CHI

Client Sample ID: SB-04 (4-6)

Date Collected: 07/27/20 12:50

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	554804	07/31/20 11:49	LWN	TAL CHI

Lab Chronicle

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-04 (4-6)

Date Collected: 07/27/20 12:50

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-4

Matrix: Solid

Percent Solids: 74.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			555074	07/27/20 12:50	EMA	TAL CHI
Total/NA	Analysis	8260B		50	555167	08/04/20 12:59	STW	TAL CHI
Total/NA	Prep	3541			555746	08/06/20 19:02	JP1	TAL CHI
Total/NA	Analysis	8270D		1	555850	08/07/20 13:12	AJD	TAL CHI

Client Sample ID: SB-03 (5-6)

Date Collected: 07/27/20 15:10

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	554804	07/31/20 11:49	LWN	TAL CHI

Client Sample ID: SB-03 (5-6)

Date Collected: 07/27/20 15:10

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-5

Matrix: Solid

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			555074	07/27/20 15:10	EMA	TAL CHI
Total/NA	Analysis	8260B		50	555167	08/04/20 13:25	STW	TAL CHI
Total/NA	Prep	3541			555746	08/06/20 19:02	JP1	TAL CHI
Total/NA	Analysis	8270D		5	555850	08/07/20 12:01	AJD	TAL CHI

Client Sample ID: SB-05 (3-4)

Date Collected: 07/27/20 15:25

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	554804	07/31/20 11:49	LWN	TAL CHI

Client Sample ID: SB-05 (3-4)

Date Collected: 07/27/20 15:25

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-6

Matrix: Solid

Percent Solids: 74.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			555074	07/27/20 15:25	EMA	TAL CHI
Total/NA	Analysis	8260B		50	555167	08/04/20 13:51	STW	TAL CHI
Total/NA	Prep	3541			555746	08/06/20 19:02	JP1	TAL CHI
Total/NA	Analysis	8270D		1	555850	08/07/20 12:48	AJD	TAL CHI

Client Sample ID: SB-06 (3-4)

Date Collected: 07/27/20 15:45

Date Received: 07/29/20 07:00

Lab Sample ID: 500-185588-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	554804	07/31/20 11:49	LWN	TAL CHI

Lab Chronicle

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Client Sample ID: SB-06 (3-4)

Lab Sample ID: 500-185588-7

Date Collected: 07/27/20 15:45

Matrix: Solid

Date Received: 07/29/20 07:00

Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			555074	07/27/20 15:45	EMA	TAL CHI
Total/NA	Analysis	8260B		50	555167	08/04/20 14:17	STW	TAL CHI
Total/NA	Prep	3541			555746	08/06/20 19:02	JP1	TAL CHI
Total/NA	Analysis	8270D		1	555850	08/07/20 13:35	AJD	TAL CHI
Total/NA	Prep	3541	DL		555746	08/06/20 19:02	JP1	TAL CHI
Total/NA	Analysis	8270D	DL	5	555850	08/07/20 18:16	AJD	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: CBRE, Inc.
 Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 500-185588-1

Laboratory: Eurofins TestAmerica, Chicago

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2903	04-30-20 *
Georgia	State	N/A	04-30-20 *
Georgia (DW)	State	939	04-30-20 *
Hawaii	State	NA	04-30-20 *
Illinois	NELAP	IL00035	04-30-20 *
Indiana	State	C-IL-02	04-30-20 *
Iowa	State	082	05-01-20 *
Kansas	NELAP	E-10161	11-01-20
Kentucky (UST)	State	AI # 108083	04-30-20 *
Kentucky (WW)	State	KY90023	12-31-20
Mississippi	State	NA	04-30-20 *
New York	NELAP	12019	04-01-21
North Carolina (WW/SW)	State	291	12-31-20
North Dakota	State	R-194	04-30-20 *
Oklahoma	State	8908	08-31-20
South Carolina	State	77001003	04-30-20 *
USDA	US Federal Programs	P330-18-00018	02-11-21
Wisconsin	State	999580010	08-31-20
Wyoming	State	8TMS-Q	04-30-20 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Login Sample Receipt Checklist

Client: CBRE, Inc.

Job Number: 500-185588-1

Login Number: 185588

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Burlington
30 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

Laboratory Job ID: 200-54544-1

Client Project/Site: Wags - FDL Fond du Lac, WI

For:

CBRE, Inc.
6508 Charleston St
Oak Forest, Illinois 60452

Attn: David Lutz



Authorized for release by:
8/5/2020 1:07:04 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

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Results relate only to the items tested and the sample(s) as received by the laboratory.



Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	6
QC Sample Results	8
QC Association Summary	10
Lab Chronicle	11
Certification Summary	12
Method Summary	13
Sample Summary	14
Chain of Custody	15
Receipt Checklists	17
Clean Canister Certification	18
Pre-Ship Certification	18
Clean Canister Data	19
Air Canister Dilution	30

Definitions/Glossary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Job ID: 200-54544-1

Laboratory: Eurofins TestAmerica, Burlington

Narrative

Job Narrative
200-54544-1

Comments

No additional comments.

Receipt

The samples were received on 7/30/2020 10:36 AM; the samples arrived in good condition, and where required, properly preserved and on ice.

Air Toxics

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Detection Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Client Sample ID: SVP-01

Lab Sample ID: 200-54544-1

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	13		9.8	2.2	ug/m3	10		TO-15	Total/NA
1,3,5-Trimethylbenzene	3.7	J	9.8	1.9	ug/m3	10		TO-15	Total/NA
Benzene	6.5		6.4	2.1	ug/m3	10		TO-15	Total/NA
Ethylbenzene	15		8.7	2.7	ug/m3	10		TO-15	Total/NA
Heptane	17		8.2	2.3	ug/m3	10		TO-15	Total/NA
Hexane	24		7.0	7.0	ug/m3	10		TO-15	Total/NA
Pentane	34		15	4.7	ug/m3	10		TO-15	Total/NA
Tetrachloroethene	74		14	2.2	ug/m3	10		TO-15	Total/NA
Toluene	73		7.5	4.1	ug/m3	10		TO-15	Total/NA
Xylene (total)	75		30	2.1	ug/m3	10		TO-15	Total/NA

Client Sample ID: SVP-02

Lab Sample ID: 200-54544-2

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	17		9.8	2.2	ug/m3	10		TO-15	Total/NA
1,3,5-Trimethylbenzene	5.2	J	9.8	1.9	ug/m3	10		TO-15	Total/NA
Benzene	17		6.4	2.1	ug/m3	10		TO-15	Total/NA
Ethylbenzene	22		8.7	2.7	ug/m3	10		TO-15	Total/NA
Isopropylbenzene	1.7	J	9.8	1.7	ug/m3	10		TO-15	Total/NA
Heptane	190		8.2	2.3	ug/m3	10		TO-15	Total/NA
Hexane	270		7.0	7.0	ug/m3	10		TO-15	Total/NA
Pentane	380		15	4.7	ug/m3	10		TO-15	Total/NA
Toluene	97		7.5	4.1	ug/m3	10		TO-15	Total/NA
Xylene (total)	110		30	2.1	ug/m3	10		TO-15	Total/NA

Client Sample ID: SVP-03

Lab Sample ID: 200-54544-3

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	42	J	95	19	ug/m3	120		TO-15	Total/NA
cis-1,2-Dichloroethene	2000		95	21	ug/m3	120		TO-15	Total/NA
Heptane	83	J	98	28	ug/m3	120		TO-15	Total/NA
Hexane	290		85	85	ug/m3	120		TO-15	Total/NA
Pentane	810		180	57	ug/m3	120		TO-15	Total/NA
Toluene	89	J	90	50	ug/m3	120		TO-15	Total/NA
trans-1,2-Dichloroethene	380		95	20	ug/m3	120		TO-15	Total/NA
Trichloroethene	250		130	23	ug/m3	120		TO-15	Total/NA
Vinyl chloride	7400		61	13	ug/m3	120		TO-15	Total/NA

Client Sample ID: SVP-04

Lab Sample ID: 200-54544-4

Analyte	Result	Qualifier	LOQ	LOD	Unit	Dil Fac	D	Method	Prep Type
Benzene	6.4		6.4	2.1	ug/m3	10		TO-15	Total/NA
cis-1,2-Dichloroethene	9.6		7.9	1.8	ug/m3	10		TO-15	Total/NA
Ethylbenzene	4.8	J	8.7	2.7	ug/m3	10		TO-15	Total/NA
Heptane	16		8.2	2.3	ug/m3	10		TO-15	Total/NA
Hexane	36		7.0	7.0	ug/m3	10		TO-15	Total/NA
Pentane	150		15	4.7	ug/m3	10		TO-15	Total/NA
Toluene	42		7.5	4.1	ug/m3	10		TO-15	Total/NA
trans-1,2-Dichloroethene	2.2	J	7.9	1.7	ug/m3	10		TO-15	Total/NA
Trichloroethene	1.9	J	11	1.9	ug/m3	10		TO-15	Total/NA
Vinyl chloride	44		5.1	1.1	ug/m3	10		TO-15	Total/NA
Xylene (total)	13	J	30	2.1	ug/m3	10		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Burlington

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Client Sample ID: SVP-01

Lab Sample ID: 200-54544-1

Date Collected: 07/27/20 10:46

Matrix: Air

Date Received: 07/30/20 10:36

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<1.5		7.9	1.5	ug/m3			08/04/20 01:43	10
1,2,4-Trimethylbenzene	13		9.8	2.2	ug/m3			08/04/20 01:43	10
1,3,5-Trimethylbenzene	3.7	J	9.8	1.9	ug/m3			08/04/20 01:43	10
Benzene	6.5		6.4	2.1	ug/m3			08/04/20 01:43	10
Carbon tetrachloride	<1.5		13	1.5	ug/m3			08/04/20 01:43	10
cis-1,2-Dichloroethene	<1.8		7.9	1.8	ug/m3			08/04/20 01:43	10
Ethylbenzene	15		8.7	2.7	ug/m3			08/04/20 01:43	10
Isopropylbenzene	<1.7		9.8	1.7	ug/m3			08/04/20 01:43	10
Methyl tert-butyl ether	<1.2		7.2	1.2	ug/m3			08/04/20 01:43	10
Naphthalene	<8.9		26	8.9	ug/m3			08/04/20 01:43	10
Heptane	17		8.2	2.3	ug/m3			08/04/20 01:43	10
Hexane	24		7.0	7.0	ug/m3			08/04/20 01:43	10
Pentane	34		15	4.7	ug/m3			08/04/20 01:43	10
Tetrachloroethene	74		14	2.2	ug/m3			08/04/20 01:43	10
Toluene	73		7.5	4.1	ug/m3			08/04/20 01:43	10
trans-1,2-Dichloroethene	<1.7		7.9	1.7	ug/m3			08/04/20 01:43	10
Trichloroethene	<1.9		11	1.9	ug/m3			08/04/20 01:43	10
Vinyl chloride	<1.1		5.1	1.1	ug/m3			08/04/20 01:43	10
Xylene (total)	75		30	2.1	ug/m3			08/04/20 01:43	10

Client Sample ID: SVP-02

Lab Sample ID: 200-54544-2

Date Collected: 07/27/20 12:44

Matrix: Air

Date Received: 07/30/20 10:36

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<1.5		7.9	1.5	ug/m3			08/04/20 02:37	10
1,2,4-Trimethylbenzene	17		9.8	2.2	ug/m3			08/04/20 02:37	10
1,3,5-Trimethylbenzene	5.2	J	9.8	1.9	ug/m3			08/04/20 02:37	10
Benzene	17		6.4	2.1	ug/m3			08/04/20 02:37	10
Carbon tetrachloride	<1.5		13	1.5	ug/m3			08/04/20 02:37	10
cis-1,2-Dichloroethene	<1.8		7.9	1.8	ug/m3			08/04/20 02:37	10
Ethylbenzene	22		8.7	2.7	ug/m3			08/04/20 02:37	10
Isopropylbenzene	1.7	J	9.8	1.7	ug/m3			08/04/20 02:37	10
Methyl tert-butyl ether	<1.2		7.2	1.2	ug/m3			08/04/20 02:37	10
Naphthalene	<8.9		26	8.9	ug/m3			08/04/20 02:37	10
Heptane	190		8.2	2.3	ug/m3			08/04/20 02:37	10
Hexane	270		7.0	7.0	ug/m3			08/04/20 02:37	10
Pentane	380		15	4.7	ug/m3			08/04/20 02:37	10
Tetrachloroethene	<2.2		14	2.2	ug/m3			08/04/20 02:37	10
Toluene	97		7.5	4.1	ug/m3			08/04/20 02:37	10
trans-1,2-Dichloroethene	<1.7		7.9	1.7	ug/m3			08/04/20 02:37	10
Trichloroethene	<1.9		11	1.9	ug/m3			08/04/20 02:37	10
Vinyl chloride	<1.1		5.1	1.1	ug/m3			08/04/20 02:37	10
Xylene (total)	110		30	2.1	ug/m3			08/04/20 02:37	10

Eurofins TestAmerica, Burlington

Client Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Client Sample ID: SVP-03

Lab Sample ID: 200-54544-3

Date Collected: 07/27/20 14:32

Matrix: Air

Date Received: 07/30/20 10:36

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	42	J	95	19	ug/m3			08/05/20 01:52	120
1,2,4-Trimethylbenzene	<26		120	26	ug/m3			08/05/20 01:52	120
1,3,5-Trimethylbenzene	<23		120	23	ug/m3			08/05/20 01:52	120
Benzene	<26		77	26	ug/m3			08/05/20 01:52	120
Carbon tetrachloride	<18		150	18	ug/m3			08/05/20 01:52	120
cis-1,2-Dichloroethene	2000		95	21	ug/m3			08/05/20 01:52	120
Ethylbenzene	<33		100	33	ug/m3			08/05/20 01:52	120
Isopropylbenzene	<21		120	21	ug/m3			08/05/20 01:52	120
Methyl tert-butyl ether	<14		87	14	ug/m3			08/05/20 01:52	120
Naphthalene	<110		310	110	ug/m3			08/05/20 01:52	120
Heptane	83	J	98	28	ug/m3			08/05/20 01:52	120
Hexane	290		85	85	ug/m3			08/05/20 01:52	120
Pentane	810		180	57	ug/m3			08/05/20 01:52	120
Tetrachloroethene	<27		160	27	ug/m3			08/05/20 01:52	120
Toluene	89	J	90	50	ug/m3			08/05/20 01:52	120
trans-1,2-Dichloroethene	380		95	20	ug/m3			08/05/20 01:52	120
Trichloroethene	250		130	23	ug/m3			08/05/20 01:52	120
Vinyl chloride	7400		61	13	ug/m3			08/05/20 01:52	120
Xylene (total)	<25		360	25	ug/m3			08/05/20 01:52	120

Client Sample ID: SVP-04

Lab Sample ID: 200-54544-4

Date Collected: 07/27/20 15:56

Matrix: Air

Date Received: 07/30/20 10:36

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<1.5		7.9	1.5	ug/m3			08/04/20 05:20	10
1,2,4-Trimethylbenzene	<2.2		9.8	2.2	ug/m3			08/04/20 05:20	10
1,3,5-Trimethylbenzene	<1.9		9.8	1.9	ug/m3			08/04/20 05:20	10
Benzene	6.4		6.4	2.1	ug/m3			08/04/20 05:20	10
Carbon tetrachloride	<1.5		13	1.5	ug/m3			08/04/20 05:20	10
cis-1,2-Dichloroethene	9.6		7.9	1.8	ug/m3			08/04/20 05:20	10
Ethylbenzene	4.8	J	8.7	2.7	ug/m3			08/04/20 05:20	10
Isopropylbenzene	<1.7		9.8	1.7	ug/m3			08/04/20 05:20	10
Methyl tert-butyl ether	<1.2		7.2	1.2	ug/m3			08/04/20 05:20	10
Naphthalene	<8.9		26	8.9	ug/m3			08/04/20 05:20	10
Heptane	16		8.2	2.3	ug/m3			08/04/20 05:20	10
Hexane	36		7.0	7.0	ug/m3			08/04/20 05:20	10
Pentane	150		15	4.7	ug/m3			08/04/20 05:20	10
Tetrachloroethene	<2.2		14	2.2	ug/m3			08/04/20 05:20	10
Toluene	42		7.5	4.1	ug/m3			08/04/20 05:20	10
trans-1,2-Dichloroethene	2.2	J	7.9	1.7	ug/m3			08/04/20 05:20	10
Trichloroethene	1.9	J	11	1.9	ug/m3			08/04/20 05:20	10
Vinyl chloride	44		5.1	1.1	ug/m3			08/04/20 05:20	10
Xylene (total)	13	J	30	2.1	ug/m3			08/04/20 05:20	10

Eurofins TestAmerica, Burlington

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-157471/4
Matrix: Air
Analysis Batch: 157471

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.15		0.79	0.15	ug/m3			08/03/20 13:02	1
1,2,4-Trimethylbenzene	<0.22		0.98	0.22	ug/m3			08/03/20 13:02	1
1,3,5-Trimethylbenzene	<0.19		0.98	0.19	ug/m3			08/03/20 13:02	1
Benzene	<0.21		0.64	0.21	ug/m3			08/03/20 13:02	1
Carbon tetrachloride	<0.15		1.3	0.15	ug/m3			08/03/20 13:02	1
cis-1,2-Dichloroethene	<0.18		0.79	0.18	ug/m3			08/03/20 13:02	1
Ethylbenzene	<0.27		0.87	0.27	ug/m3			08/03/20 13:02	1
Isopropylbenzene	<0.17		0.98	0.17	ug/m3			08/03/20 13:02	1
Methyl tert-butyl ether	<0.12		0.72	0.12	ug/m3			08/03/20 13:02	1
Naphthalene	<0.89		2.6	0.89	ug/m3			08/03/20 13:02	1
Heptane	<0.23		0.82	0.23	ug/m3			08/03/20 13:02	1
Hexane	<0.70		0.70	0.70	ug/m3			08/03/20 13:02	1
Pentane	<0.47		1.5	0.47	ug/m3			08/03/20 13:02	1
Tetrachloroethene	<0.22		1.4	0.22	ug/m3			08/03/20 13:02	1
Toluene	<0.41		0.75	0.41	ug/m3			08/03/20 13:02	1
trans-1,2-Dichloroethene	<0.17		0.79	0.17	ug/m3			08/03/20 13:02	1
Trichloroethene	<0.19		1.1	0.19	ug/m3			08/03/20 13:02	1
Vinyl chloride	<0.11		0.51	0.11	ug/m3			08/03/20 13:02	1
Xylene (total)	<0.21		3.0	0.21	ug/m3			08/03/20 13:02	1

Lab Sample ID: LCS 200-157471/3
Matrix: Air
Analysis Batch: 157471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	40.4	34.3		ug/m3		85	68 - 120
1,2,4-Trimethylbenzene	51.3	46.9		ug/m3		91	71 - 129
1,3,5-Trimethylbenzene	51.6	46.3		ug/m3		90	72 - 126
Benzene	33.2	29.4		ug/m3		88	73 - 119
Carbon tetrachloride	63.2	58.6		ug/m3		93	71 - 133
cis-1,2-Dichloroethene	41.1	35.1		ug/m3		85	72 - 121
Ethylbenzene	44.4	40.1		ug/m3		90	74 - 122
Isopropylbenzene	51.4	46.3		ug/m3		90	73 - 123
Methyl tert-butyl ether	38.1	34.9		ug/m3		92	70 - 127
Naphthalene	55.0	53.5		ug/m3		97	50 - 150
Heptane	42.2	38.7		ug/m3		92	60 - 142
Hexane	36.9	33.0		ug/m3		89	63 - 138
Pentane	30.1	27.2		ug/m3		90	59 - 152
Tetrachloroethene	71.0	61.5		ug/m3		87	70 - 125
Toluene	38.4	34.2		ug/m3		89	75 - 122
trans-1,2-Dichloroethene	40.9	36.1		ug/m3		88	69 - 137
Trichloroethene	55.3	47.4		ug/m3		86	73 - 122
Vinyl chloride	25.5	22.7		ug/m3		89	61 - 135

QC Sample Results

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-157535/5
Matrix: Air
Analysis Batch: 157535

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.15		0.79	0.15	ug/m3			08/04/20 15:14	1
1,2,4-Trimethylbenzene	<0.22		0.98	0.22	ug/m3			08/04/20 15:14	1
1,3,5-Trimethylbenzene	<0.19		0.98	0.19	ug/m3			08/04/20 15:14	1
Benzene	<0.21		0.64	0.21	ug/m3			08/04/20 15:14	1
Carbon tetrachloride	<0.15		1.3	0.15	ug/m3			08/04/20 15:14	1
cis-1,2-Dichloroethene	<0.18		0.79	0.18	ug/m3			08/04/20 15:14	1
Ethylbenzene	<0.27		0.87	0.27	ug/m3			08/04/20 15:14	1
Isopropylbenzene	<0.17		0.98	0.17	ug/m3			08/04/20 15:14	1
Methyl tert-butyl ether	<0.12		0.72	0.12	ug/m3			08/04/20 15:14	1
Naphthalene	<0.89		2.6	0.89	ug/m3			08/04/20 15:14	1
Heptane	<0.23		0.82	0.23	ug/m3			08/04/20 15:14	1
Hexane	<0.70		0.70	0.70	ug/m3			08/04/20 15:14	1
Pentane	<0.47		1.5	0.47	ug/m3			08/04/20 15:14	1
Tetrachloroethene	<0.22		1.4	0.22	ug/m3			08/04/20 15:14	1
Toluene	<0.41		0.75	0.41	ug/m3			08/04/20 15:14	1
trans-1,2-Dichloroethene	<0.17		0.79	0.17	ug/m3			08/04/20 15:14	1
Trichloroethene	<0.19		1.1	0.19	ug/m3			08/04/20 15:14	1
Vinyl chloride	<0.11		0.51	0.11	ug/m3			08/04/20 15:14	1
Xylene (total)	<0.21		3.0	0.21	ug/m3			08/04/20 15:14	1

Lab Sample ID: LCS 200-157535/4
Matrix: Air
Analysis Batch: 157535

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	40.4	37.0		ug/m3		92	68 - 120
1,2,4-Trimethylbenzene	51.3	42.4		ug/m3		83	71 - 129
1,3,5-Trimethylbenzene	51.6	41.7		ug/m3		81	72 - 126
Benzene	33.2	27.6		ug/m3		83	73 - 119
Carbon tetrachloride	63.2	49.2		ug/m3		78	71 - 133
cis-1,2-Dichloroethene	41.1	35.3		ug/m3		86	72 - 121
Ethylbenzene	44.4	37.7		ug/m3		85	74 - 122
Isopropylbenzene	51.4	44.3		ug/m3		86	73 - 123
Methyl tert-butyl ether	38.1	30.6		ug/m3		80	70 - 127
Naphthalene	55.0	36.9		ug/m3		67	50 - 150
Heptane	42.2	35.8		ug/m3		85	60 - 142
Hexane	36.9	32.3		ug/m3		88	63 - 138
Pentane	30.1	24.5		ug/m3		81	59 - 152
Tetrachloroethene	71.0	57.1		ug/m3		80	70 - 125
Toluene	38.4	31.9		ug/m3		83	75 - 122
trans-1,2-Dichloroethene	40.9	31.5		ug/m3		77	69 - 137
Trichloroethene	55.3	46.7		ug/m3		84	73 - 122
Vinyl chloride	25.5	22.9		ug/m3		90	61 - 135

QC Association Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Air - GC/MS VOA

Analysis Batch: 157471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-54544-1	SVP-01	Total/NA	Air	TO-15	
200-54544-2	SVP-02	Total/NA	Air	TO-15	
200-54544-4	SVP-04	Total/NA	Air	TO-15	
MB 200-157471/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-157471/3	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 157535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-54544-3	SVP-03	Total/NA	Air	TO-15	
MB 200-157535/5	Method Blank	Total/NA	Air	TO-15	
LCS 200-157535/4	Lab Control Sample	Total/NA	Air	TO-15	



Lab Chronicle

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Client Sample ID: SVP-01

Date Collected: 07/27/20 10:46

Date Received: 07/30/20 10:36

Lab Sample ID: 200-54544-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	157471	08/04/20 01:43	K1P	TAL BUR

Client Sample ID: SVP-02

Date Collected: 07/27/20 12:44

Date Received: 07/30/20 10:36

Lab Sample ID: 200-54544-2

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	157471	08/04/20 02:37	K1P	TAL BUR

Client Sample ID: SVP-03

Date Collected: 07/27/20 14:32

Date Received: 07/30/20 10:36

Lab Sample ID: 200-54544-3

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		120	157535	08/05/20 01:52	A1B	TAL BUR

Client Sample ID: SVP-04

Date Collected: 07/27/20 15:56

Date Received: 07/30/20 10:36

Lab Sample ID: 200-54544-4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	157471	08/04/20 05:20	K1P	TAL BUR

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-16-21
Florida	NELAP	E87467	06-30-21
Minnesota	NELAP	050-999-436	12-31-20
New Hampshire	NELAP	2006	12-18-20
New Jersey	NELAP	VT972	06-30-21
New York	NELAP	10391	04-01-21
Pennsylvania	NELAP	68-00489	04-30-21
Rhode Island	State	LAO00298	12-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00272	08-09-20
Vermont	State	VT4000	12-31-20
Virginia	NELAP	460209	12-14-20
Wisconsin	State	399133350	08-31-21

Method Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = Eurofins TestAmerica, Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990



Sample Summary

Client: CBRE, Inc.
Project/Site: Wags - FDL Fond du Lac, WI

Job ID: 200-54544-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-54544-1	SVP-01	Air	07/27/20 10:46	07/30/20 10:36	Air Canister (1-Liter) #34001014
200-54544-2	SVP-02	Air	07/27/20 12:44	07/30/20 10:36	Air Canister (1-Liter) #8443
200-54544-3	SVP-03	Air	07/27/20 14:32	07/30/20 10:36	Air Canister (1-Liter) #34001855
200-54544-4	SVP-04	Air	07/27/20 15:56	07/30/20 10:36	Air Canister (1-Liter) #34001078

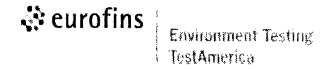
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Eurofins TestAmerica, Burlington

30 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.



TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information				Client Project Manager: Jen Sepina				Samples Collected By: Jen Sepina				COC No: 1 of 1 COCs																																															
Company Name: CBRE				Phone: 815 400 1488																																																							
Address:				Email: jennifer.sepina@cbre																																																							
City/State/Zip				Site Contact:																																																							
Phone:				Tel/Fax:																																																							
FAX:				Analysis Turnaround Time																																																							
Project Name: WAGS-FDL				Standard (Specific): 81412020																																																							
Site/Location: Fond du Lac - WI				Rush (Specify):																																																							
P O # E 00706119-104																																																											
Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/15 (Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:																																				
SVP-01	7/27	1041	7/27	1046	-26	-3	4700	34001014	X																																																		
SVP-02	7/27	1238	7/27	1244	-30	-3	5881	8443	X																																																		
SVP-03	7/27	1426	7/27	1432	-28	-3	6518	34001555	X																																																		
SVP-04	7/27	1551	7/27	1556	-28	-3	6367	34001078	X																																																		
<table border="1"> <tr> <th colspan="6">Temperature (Fahrenheit)</th> </tr> <tr> <td>Start</td> <td>Interior</td> <td>Ambient</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Stop</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <th colspan="6">Pressure (inches of Hg)</th> </tr> <tr> <td>Start</td> <td>Interior</td> <td>Ambient</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Stop</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>																								Temperature (Fahrenheit)						Start	Interior	Ambient				Stop						Pressure (inches of Hg)						Start	Interior	Ambient				Stop					
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Start	Interior	Ambient																																																									
Stop																																																											
Pressure (inches of Hg)																																																											
Start	Interior	Ambient																																																									
Stop																																																											
Special Instructions/QC Requirements & Comments: Report only: BTEX m-TBE naphthalene 1,2,4-trimethylbenzene hexane heptane pentane cumene TCE PCE cis-1,2 & 1,1 & trans-1,2-DCE + vinyl chloride																																																											
Samples Shipped by: Jennifer Sepina / CBRE				Date / Time: 7/27/2020 @				Samples Received by: [Signature]				Date / Time: 7/30/2020 0:36																																															
Samples Relinquished by:				Date / Time:				Received by:																																																			
Relinquished by:				Date / Time:				Received by:																																																			
Lab Use Only: Shipper Name: _____ Opened by: _____ Condition: _____																																																											

Page 15 of 30



200-54544 COC

8/5/2020



ORIGIN ID:BTVA (802) 923-1058
JENNIFER STEPINA
CBRE, INC.
6508 CHARLESTON ST

SHIP DATE: 20JUL20
ACTWGT: 10.00 LB MAN
CAD: 000690364/CAFE3210

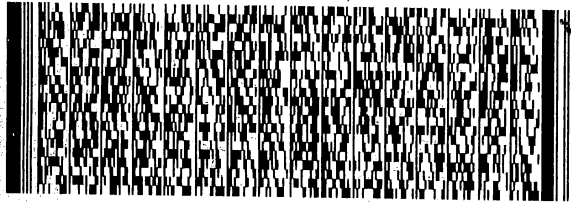
OAK FOREST, IL 60452
UNITED STATES US

TO **SAMPLE MANAGEMENT**
EUROFINS TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 923-1068

REF: S500 - 83671

RMA: ||| ||| |||



FedEx
Express



J18111804200111

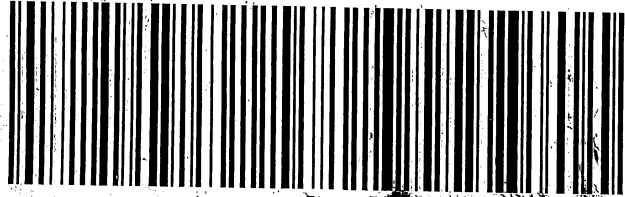
FedEx

TRK#
0221 9020 2055 6040

THU - 30 JUL 10:30A
PRIORITY OVERNIGHT

NL BTVA

05403
VT-US
BTV



FID 5217953 29JUL20 JOTA 56BC3/C6A6/05A2

55123/C6A6/104C



Login Sample Receipt Checklist

Client: CBRE, Inc.

Job Number: 200-54544-1

Login Number: 54544

List Source: Eurofins TestAmerica, Burlington

List Number: 1

Creator: Lavigne, Scott M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1059748
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-53972-1
 SDG No.: _____
 Client Sample ID: 34000935 Lab Sample ID: 200-53972-4
 Matrix: Air Lab File ID: 41623-005.d
 Analysis Method: TO-15 Date Collected: 06/13/2020 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 06/17/2020 12:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155886 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.40	U	0.40	0.40
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-53972-1
 SDG No.: _____
 Client Sample ID: 34000935 Lab Sample ID: 200-53972-4
 Matrix: Air Lab File ID: 41623-005.d
 Analysis Method: TO-15 Date Collected: 06/13/2020 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 06/17/2020 12:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155886 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.70	U	0.70	0.70
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 200-53972-1
 SDG No.: _____
 Client Sample ID: 34000935 Lab Sample ID: 200-53972-4
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 Sample wt/vol: 200 (mL) Date Analyzed: 06/17/2020 12:19
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 155886 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHW.i\20200617-41623.b\41623-005.d
 Lims ID: 200-53972-A-4
 Client ID: 34000935
 Sample Type: Client
 Inject. Date: 17-Jun-2020 12:19:30 ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0041623-005
 Misc. Info.: 53972-4
 Operator ID: ggg Instrument ID: CHW.i
 Method: \\chromfs\Burlington\ChromData\CHW.i\20200617-41623.b\TO15_MasterMethod_(v1).m
 Limit Group: AI_TO15_ICAL
 Last Update: 18-Jun-2020 07:51:44 Calib Date: 29-May-2020 01:11:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Burlington\ChromData\CHW.i\20200528-41371.b\41371-013.d
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: CTX1001

First Level Reviewer: bunmaa

Date: 18-Jun-2020 07:51:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		3.757				ND	
2 Dichlorodifluoromethane	85		3.880				ND	
3 Chlorodifluoromethane	51		3.923				ND	
4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.319				ND	
5 Chloromethane	50		4.377				ND	
6 Vinyl chloride	62		4.736				ND	
7 Butane	43		4.763				ND	
21 Butadiene	54		4.886				ND	
8 Bromomethane	94		5.651				ND	
9 Chloroethane	64		5.961				ND	
11 Vinyl bromide	106		6.410				ND	
12 Trichlorofluoromethane	101		6.592				ND	
14 Ethanol	45		7.084				ND	
17 1,1-Dichloroethene	96		7.716				ND	
19 112TCTFE	101		7.775				ND	
20 Acetone	43		7.839				ND	
22 Carbon disulfide	76		8.133				ND	
23 Isopropyl alcohol	45		8.170				ND	
25 3-Chloro-1-propene	41		8.454				ND	
26 Methylene Chloride	49		8.695				ND	
27 2-Methyl-2-propanol	59		8.951				ND	
29 trans-1,2-Dichloroethene	61		9.214				ND	
30 Methyl tert-butyl ether	73		9.235				ND	
32 Hexane	57		9.738				ND	
33 1,1-Dichloroethane	63		10.005				ND	
34 Vinyl acetate	43		10.032				ND	
S 38 1,2-Dichloroethene, Total	61		10.200				ND	
35 2-Butanone (MEK)	72		11.006				ND	
36 cis-1,2-Dichloroethene	96		11.022				ND	
37 Ethyl acetate	88		11.097				ND	
* 39 Chlorobromomethane	128	11.418	11.444	-0.026	82	79674	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
40 Tetrahydrofuran	42		11.493				ND	
41 Chloroform	83		11.626				ND	
42 1,1,1-Trichloroethane	97		11.937				ND	
43 Cyclohexane	84		12.065				ND	
44 Carbon tetrachloride	117		12.215				ND	
45 Benzene	78		12.573				ND	
46 1,2-Dichloroethane	62		12.653				ND	
47 Isooctane	57		12.787				ND	
48 n-Heptane	43		13.103				ND	
* 49 1,4-Difluorobenzene	114	13.301	13.322	-0.021	94	380850	10.0	
51 Trichloroethene	95		13.756				ND	
53 1,2-Dichloropropane	63		14.216				ND	
54 Methyl methacrylate	69		14.312				ND	
55 1,4-Dioxane	88		14.349				ND	
56 Dibromomethane	174		14.381				ND	
57 Dichlorobromomethane	83		14.692				ND	
60 cis-1,3-Dichloropropene	75		15.500				ND	
61 4-Methyl-2-pentanone (MIBK)	43		15.762				ND	
62 Toluene	92		16.147				ND	
64 trans-1,3-Dichloropropene	75		16.564				ND	
65 1,1,2-Trichloroethane	83		16.944				ND	
66 Tetrachloroethene	166		17.142				ND	
67 2-Hexanone	43		17.351				ND	
68 Chlorodibromomethane	129		17.682				ND	
69 Ethylene Dibromide	107		17.928				ND	
* 70 Chlorobenzene-d5	117	18.832	18.838	-0.006	85	229924	10.0	
71 Chlorobenzene	112		18.897				ND	
72 Ethylbenzene	91		19.095				ND	
74 m-Xylene & p-Xylene	106		19.357				ND	
S 76 Xylenes, Total	106		20.100				ND	
77 o-Xylene	106		20.132				ND	
78 Styrene	104		20.170				ND	
79 Bromoform	173		20.512				ND	
80 Isopropylbenzene	105		20.822				ND	
81 1,1,1,2,2-Tetrachloroethane	83		21.336				ND	
83 N-Propylbenzene	91		21.539				ND	U
84 2-Chlorotoluene	91		21.684				ND	
85 4-Ethyltoluene	105		21.732				ND	U
86 1,3,5-Trimethylbenzene	105		21.828				ND	U
89 tert-Butylbenzene	119		22.310				ND	
90 1,2,4-Trimethylbenzene	105		22.395				ND	
91 sec-Butylbenzene	105		22.631				ND	
92 1,3-Dichlorobenzene	146	22.807	22.802	0.005	78	447	0.0240	
93 4-Isopropyltoluene	119		22.850				ND	
94 1,4-Dichlorobenzene	146	22.946	22.946	0.000	1	488	0.0295	
95 Benzyl chloride	91		23.096				ND	
96 n-Butylbenzene	91		23.406				ND	
97 1,2-Dichlorobenzene	146	23.439	23.439	0.001	51	346	0.0165	M
100 1,2,4-Trichlorobenzene	180		25.899				ND	
101 Hexachlorobutadiene	225		26.145				ND	
102 Naphthalene	128		26.381				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

ATTO15WISs_00004

Amount Added: 20.00

Units: mL

Run Reagent

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHW.i\20200617-41623.b\41623-005.d

Injection Date: 17-Jun-2020 12:19:30

Instrument ID: CHW.i

Operator ID: ggg

Lims ID: 200-53972-A-4

Lab Sample ID: 200-53972-4

Worklist Smp#: 5

Client ID: 34000935

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

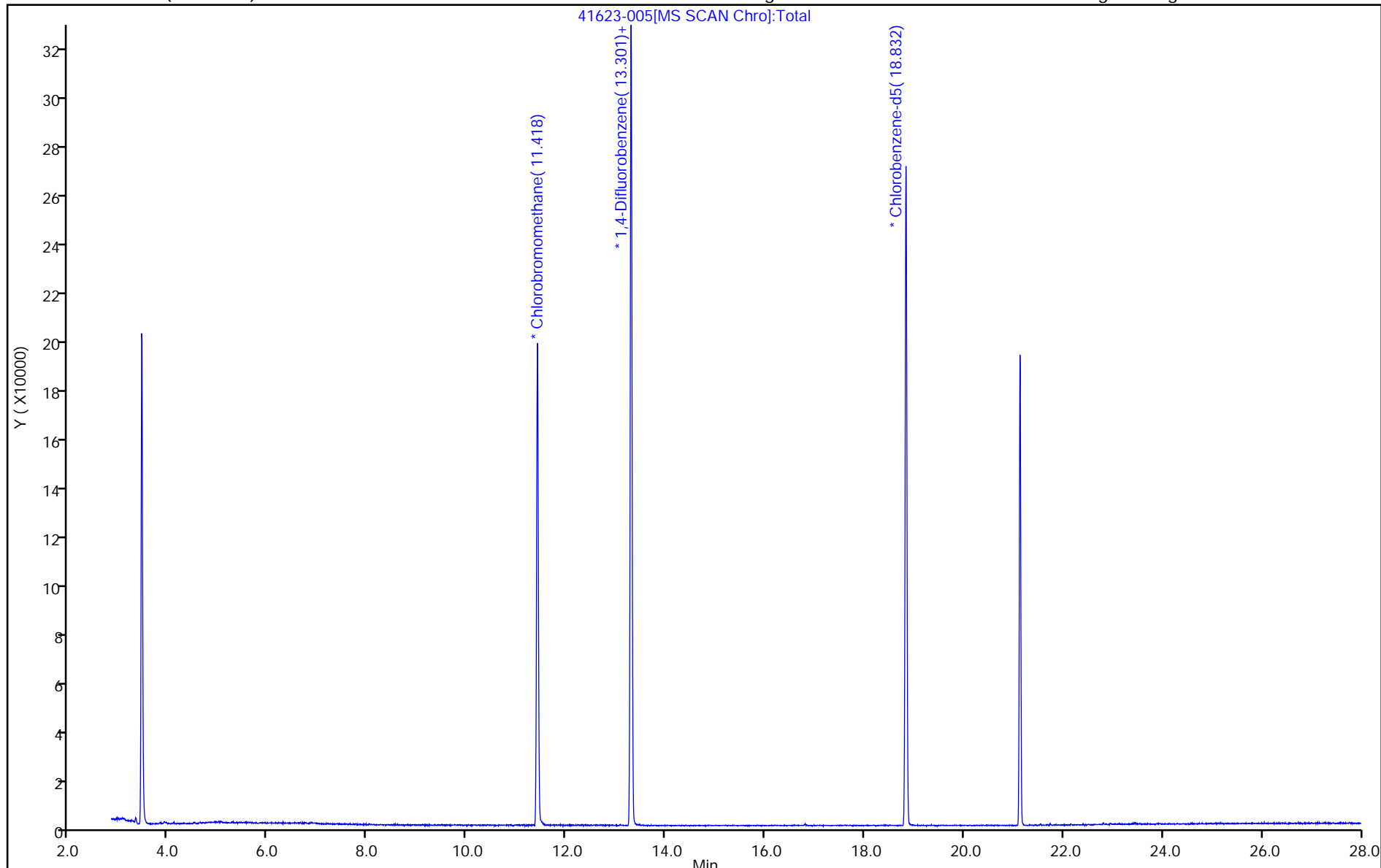
ALS Bottle#: 5

Method: TO15_MasterMethod_(v1)

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

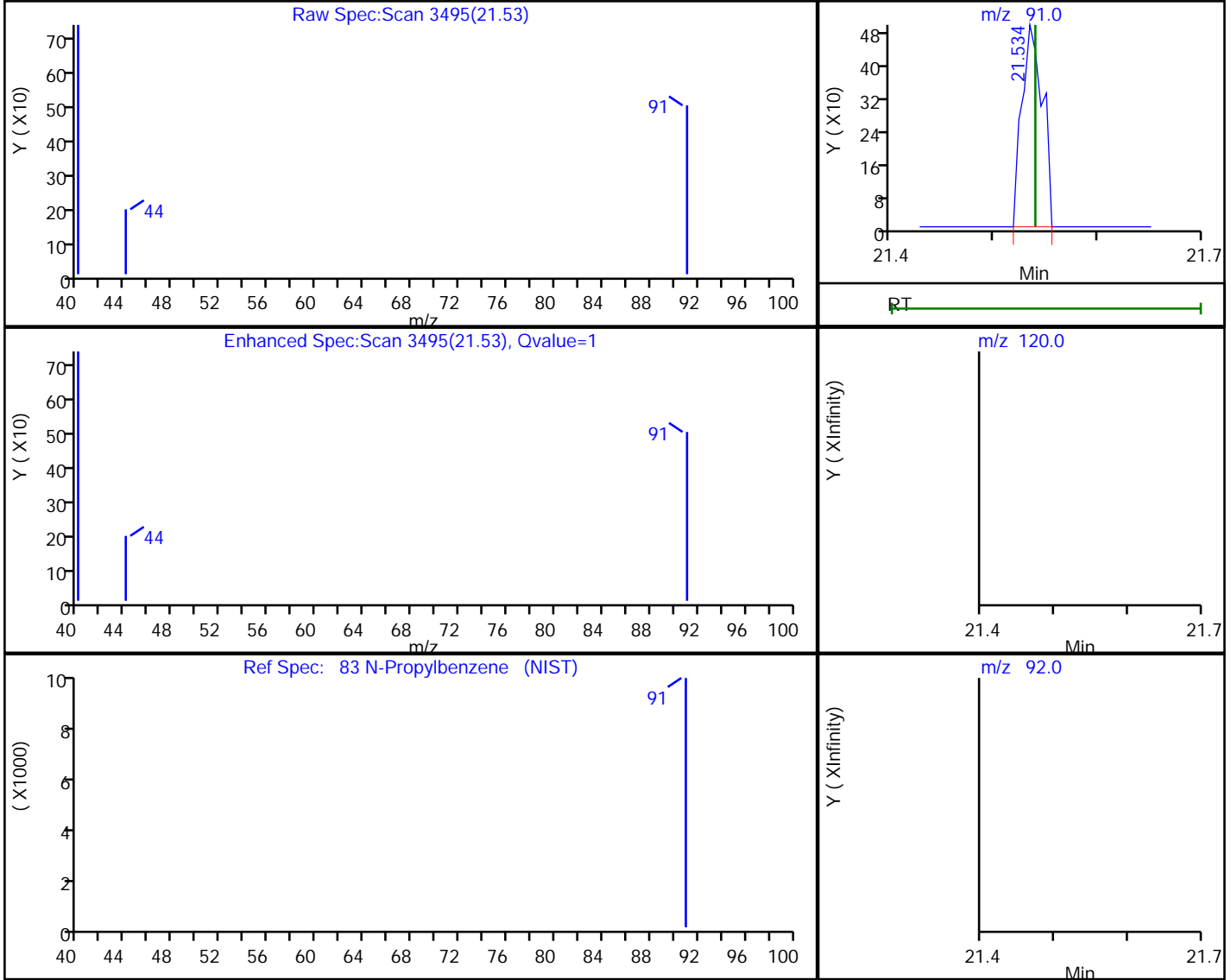


Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHW.i\20200617-41623.b\41623-005.d
 Injection Date: 17-Jun-2020 12:19:30 Instrument ID: CHW.i
 Lims ID: 200-53972-A-4 Lab Sample ID: 200-53972-4
 Client ID: 34000935
 Operator ID: ggg ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Method: TO15_MasterMethod_(v1) Limit Group: AI_TO15_ICAL
 Column: RTX-624 (0.32 mm) Detector: MS SCAN

83 N-Propylbenzene, CAS: 103-65-1

Processing Results



RT	Mass	Response	Amount
21.53	91.00	691	0.013661
21.54	120.00	0	
21.54	92.00	0	

Reviewer: bunmaa, 18-Jun-2020 07:50:46

Audit Action: Marked Compound Undetected

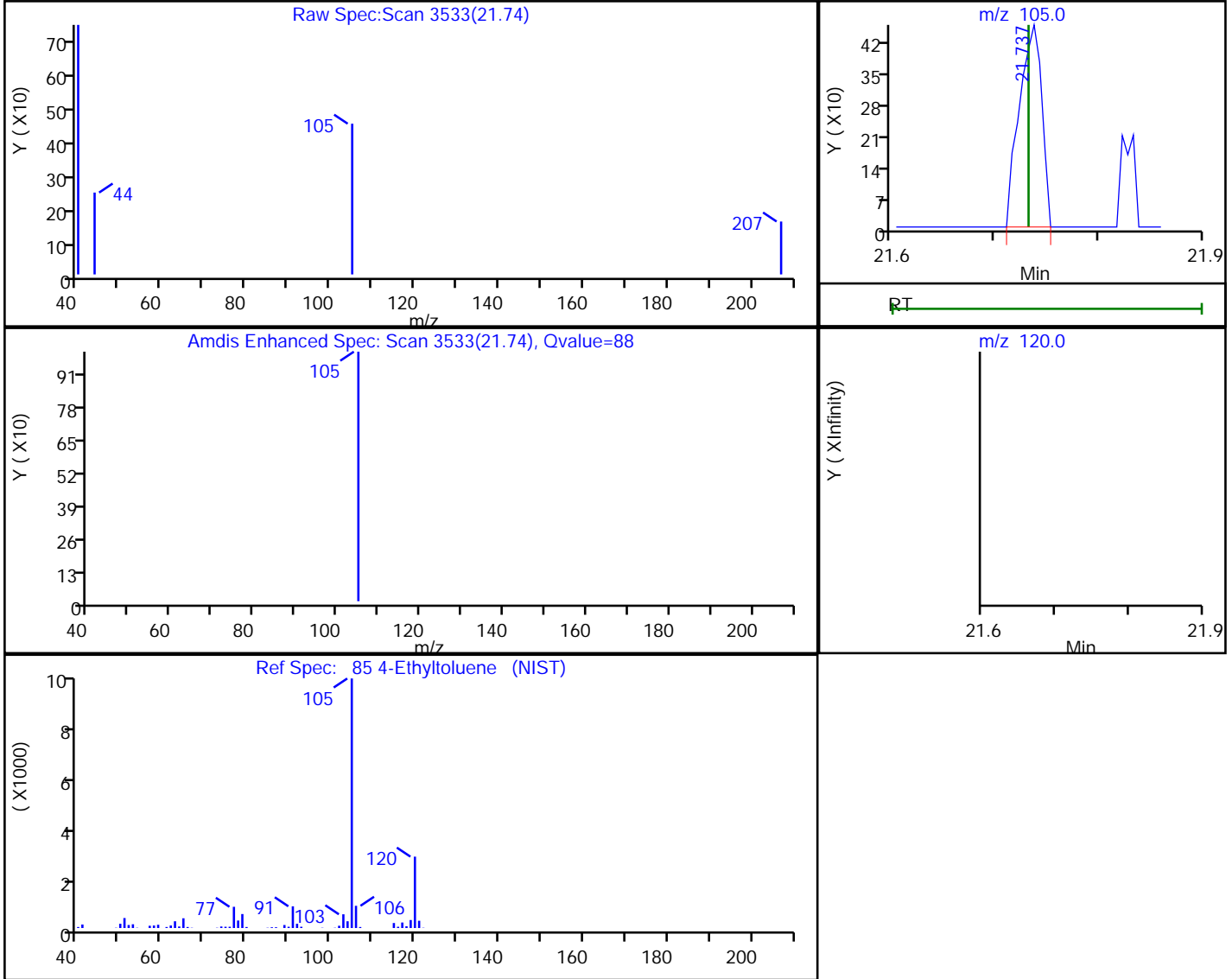
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHW.i\20200617-41623.b\41623-005.d
 Injection Date: 17-Jun-2020 12:19:30 Instrument ID: CHW.i
 Lims ID: 200-53972-A-4 Lab Sample ID: 200-53972-4
 Client ID: 34000935
 Operator ID: ggg ALS Bottle#: 5 Worklist Smp#: 5
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Method: TO15_MasterMethod_(v1) Limit Group: AI_TO15_ICAL
 Column: RTX-624 (0.32 mm) Detector: MS SCAN

85 4-Ethyltoluene, CAS: 622-96-8

Processing Results



RT	Mass	Response	Amount
21.74	105.00	683	0.016264
21.73	120.00	0	

Reviewer: bunmaa, 18-Jun-2020 07:50:56

Audit Action: Marked Compound Undetected

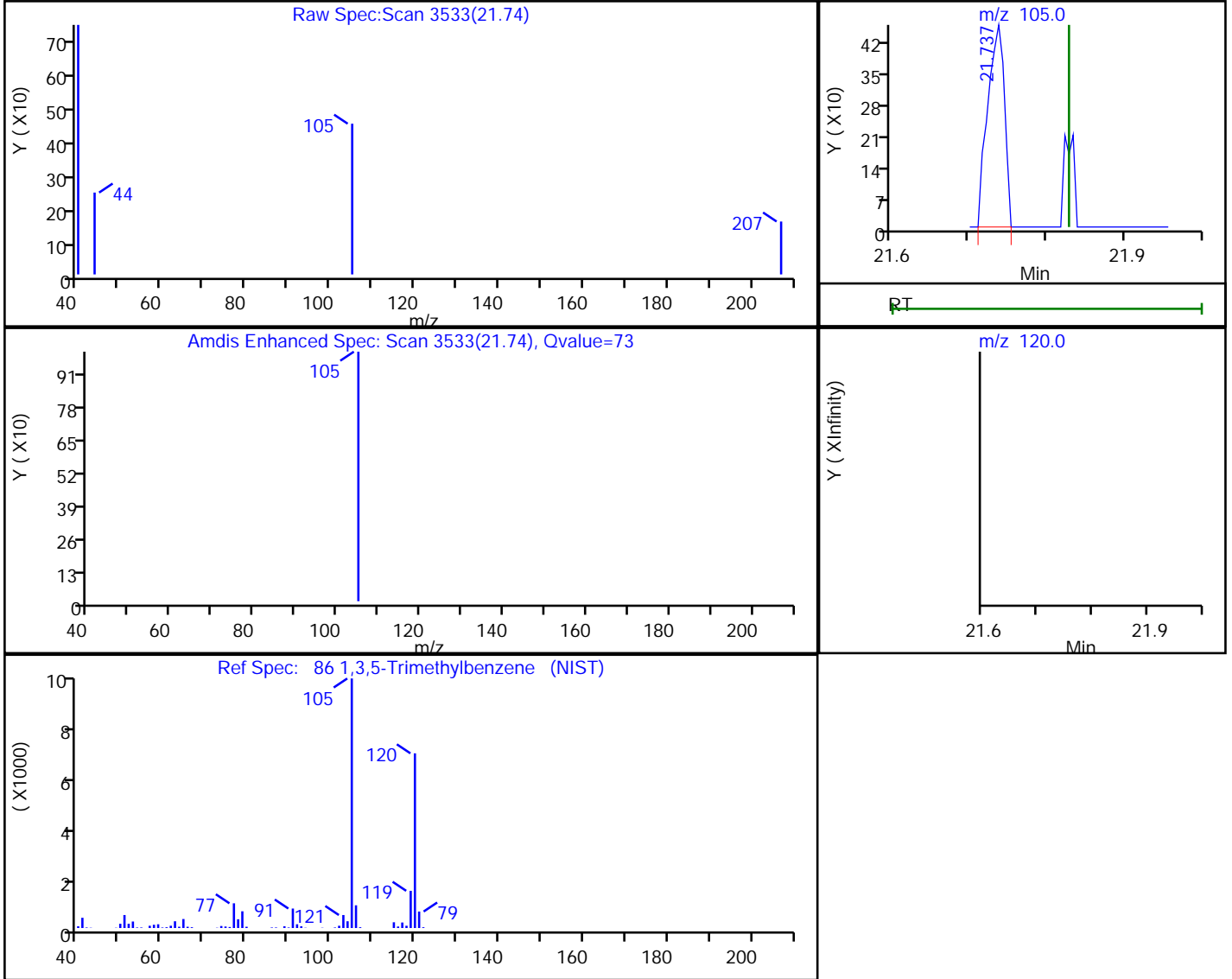
Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

Data File: \\chromfs\Burlington\ChromData\CHW.i\20200617-41623.b\41623-005.d
Injection Date: 17-Jun-2020 12:19:30 Instrument ID: CHW.i
Lims ID: 200-53972-A-4 Lab Sample ID: 200-53972-4
Client ID: 34000935
Operator ID: ggg ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1) Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

86 1,3,5-Trimethylbenzene, CAS: 108-67-8

Processing Results



RT	Mass	Response	Amount
21.74	105.00	683	0.017589
21.83	120.00	0	

Reviewer: bunmaa, 18-Jun-2020 07:51:00

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins TestAmerica, Burlington

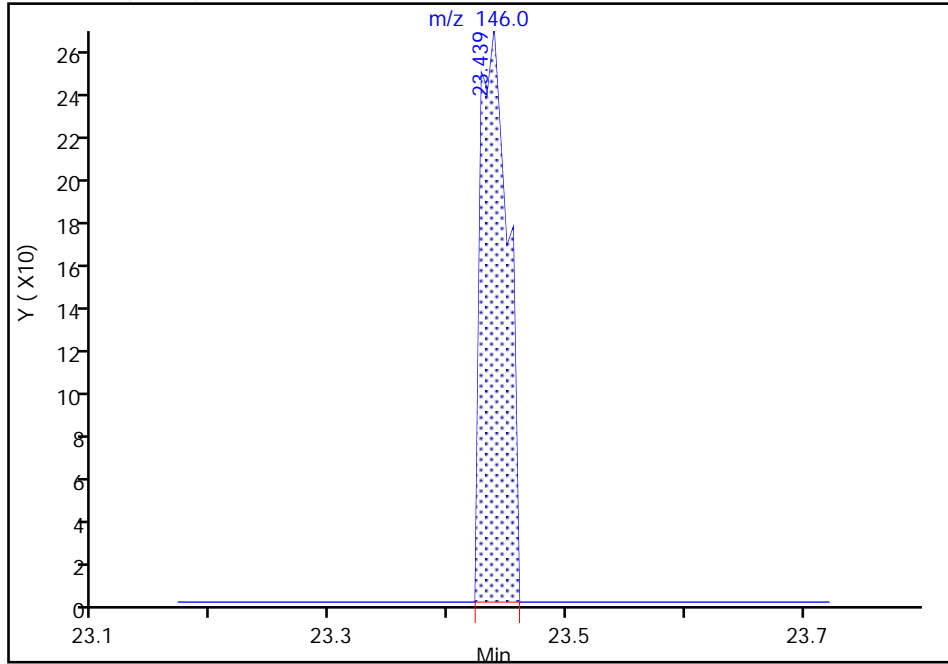
Data File: \\chromfs\Burlington\ChromData\CHW.i\20200617-41623.b\41623-005.d
Injection Date: 17-Jun-2020 12:19:30 Instrument ID: CHW.i
Lims ID: 200-53972-A-4 Lab Sample ID: 200-53972-4
Client ID: 34000935
Operator ID: ggg ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_MasterMethod_(v1) Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

97 1,2-Dichlorobenzene, CAS: 95-50-1

Signal: 1

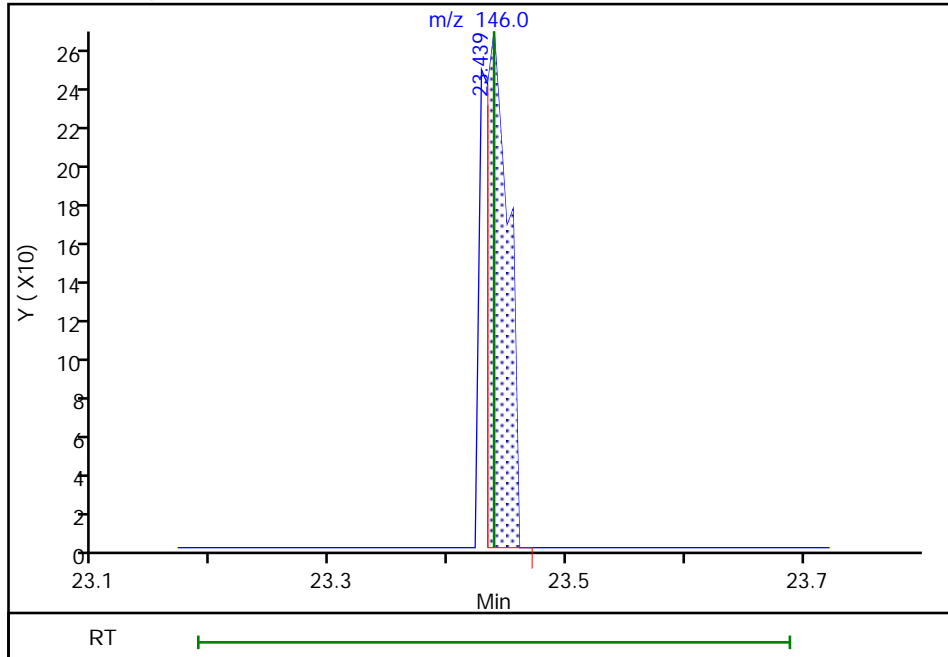
RT: 23.44
Area: 426
Amount: 0.020353
Amount Units: ppb v/v

Processing Integration Results



RT: 23.44
Area: 346
Amount: 0.016531
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 18-Jun-2020 07:51:24

Audit Action: Manually Integrated

Audit Reason: Assign Peak



Summa Canister Dilution Worksheet

Client: CBRE, Inc.
 Project/Site: Wags - FDL Fond du Lac, WI

Job No.: 200-54544-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Pressure Gauge ID	Date	Analyst Initials
200-54544-3	1	-1.2	0.96	0.96	41.5	3.82	3.82		3.98	3.98	g8	08/04/20 15:29	VTP
200-54544-3	1	0	1.00	1.00	29.5	3.01	3.01		3.01	11.98	g8	08/04/20 15:29	VTP

Formulae:

- Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg
- Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig
- Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

- 29.92 "Hg = Standard atmospheric pressure in inches of Mercury ("Hg)
- 14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

