Jacobs

Downtown Environmental Assessment Project

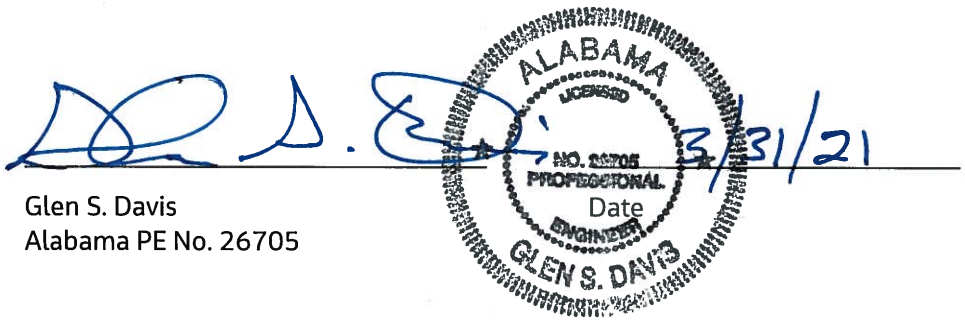
2020 Remedial Action Progress Report

March 2021

Alabama Department of Environmental Management
by the Downtown Environmental Alliance

PE Certification

This 2020 Remedial Action Progress Report was prepared under the supervision of a Professional Engineer licensed by the Alabama Board of Licensure for Professional Engineers and Land Surveyors.



3/31/21

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Acronyms and Abbreviations

µg/L	micrograms per liter
AAA	Acronyms and Abbreviations
ADEM	Alabama Department of Environmental Management
bgs	below ground surface
COG	Community Outreach Group
DCE	dichloroethene
DEA	Downtown Environmental Alliance
DEAP	Downtown Environmental Assessment Project
COPC	chemical of potential concern
EC	environmental covenant
EI	environmental investigation
EPA	U.S. Environmental Protection Agency
FYR	five-year review
GIS	geographic information system
IC	institutional control
ICP	Institutional Controls Plan
MCL	maximum contaminant level
NPL	National Priorities List
PCE	tetrachloroethene
RAPR	Remedial Action Progress Report
RAR	Remedial Action Report
RSL	regional screening level
TCE	trichloroethene
USGS	U.S. Geological Survey
VI	vapor intrusion
VIMS	vapor intrusion monitoring system
VISL	vapor intrusion screening level

1. Introduction

This Remedial Action Progress Report (RAPR) is being submitted to the Alabama Department of Environmental Management (ADEM) by the Downtown Environmental Alliance (DEA) to summarize activities related to the remedial actions conducted for the Downtown Environmental Assessment Project (DEAP), in accordance with the *Institutional Controls Plan* (ICP) (CH2M[1], 2019a) and the Remedial Action Report (RAR) (CH2M, 2019b). This RAPR is the first of three annual progress reports that will be prepared for the DEAP. After 3 years, the progress reports may transition to Five-Year Review (FYR) Reports when the groundwater monitoring frequency is reevaluated, and the revised monitoring frequency is reviewed and approved by ADEM. The remedial actions selected for the DEAP include institutional controls (ICs), FYRs, and monitoring of groundwater and ICs, in accordance with the ADEM-approved ICP.

The DEAP began with the discovery of tetrachloroethene (PCE) in a Montgomery, Alabama drinking water supply well in 1991 and downtown building excavation in 1993. Since then, the DEAP site (formerly known as the Capitol City Plume site) has been the subject of numerous investigations conducted by ADEM, the U.S. Environmental Protection Agency (EPA), U.S. Geological Survey (USGS), and the DEA and their respective contractors for sampling of soil, groundwater, sewer water, soil vapor, and tree cores (Section 1.1). Details of the historical investigations conducted prior to the formation of the DEA are provided in the *Recommendation to De-propose from the National Priorities List (NPL) – Downtown Environmental Assessment Project (formerly the Capital City Plume)* (CH2M, 2020). The text of this document is included as Appendix A to this report. Figure 1 presents the DEAP investigation area boundary.

1.1 Project Background

The DEAP covers approximately 30 city blocks in the northwest portion of downtown Montgomery and includes groundwater and soil vapor potentially impacted by the PCE discovered in PW-09W (formerly a drinking water supply well in the North Well Field) in 1991 and during the construction of the RSA Energy Plant in 1993 (Figure 1). Prior to completing construction of the RSA Energy Plant, impacted soil was excavated as an emergency removal action. Following the removal action, concentrations of PCE exceeding the EPA Regional Screening Level (RSL) were not identified in soil, indicating that the source was removed. Therefore, surface and subsurface soil are not considered media of interest at the DEAP site. The North Well Field, which historically drew groundwater within the site boundary for public use, was closed in 1991 following initial detection of PCE. The North Well Field was replaced with a new well field in southern Montgomery County. Wells in the North Well Field have since been abandoned.

Following the 1993 emergency removal at the RSA Energy Plant and prior to the DEA's involvement, multiple investigations were conducted in the area to assess the nature and extent of remaining contamination, and other investigations were conducted as environmental site assessments for commercial and industrial properties within downtown Montgomery. These investigations evaluated soil, groundwater, sewer water, soil vapor, and tree core samples through 2012. Over the course of these investigations, a PCE plume in groundwater emanating from the area of the RSA Energy Plant was identified and subsequently monitored; however, no residual PCE contamination was identified in unsaturated soil.

Investigation results also concluded that multiple sources of contamination likely exist within the downtown Montgomery area. However, as previously noted, the DEAP evaluation consisted of

[1] CH2M HILL Engineers, Inc. (CH2M) is now part of Jacobs Engineering Group Inc.

groundwater and soil vapor potentially impacted by the PCE discovered in PW-09W in 1991 and during the construction of the RSA Energy Plant in 1993. Therefore, although other chemicals that are commonly found in industrial or commercial areas were observed during the historical investigations, chemicals of potential concern (COPCs) for the DEAP were initially identified as PCE in groundwater and associated degradation products, namely trichloroethene (TCE), cis-1,2-dichloroethene (DCE), trans-1,2-DCE, and vinyl chloride. A summary of this historical investigation information can be found in the Final Technical Work Plan (CH2M, 2016).

In 2016 and 2017, a supplemental Environmental Investigation (EI) was conducted by the DEA that included groundwater and soil vapor sampling to assess the nature and extent of site COPCs in groundwater and to provide sufficient data to evaluate vapor intrusion (VI) potential. Soil vapor sampling included evaluation of the County Annex III and Attorney General Buildings (Figure 1) to address EPA concerns of indoor air quality. The EI also included a transducer study to evaluate groundwater/surface water interaction along the segment of Cypress Creek adjacent to the site (CH2M, 2017).

Based on the results of the EI phase of the project, PCE and TCE were the only chemicals in groundwater that exceeded the lower of the maximum contaminant levels (MCLs) and EPA regional screening levels (RSLs). The lateral extent of PCE exceeding the MCL in groundwater ends near Cypress Creek, where the influence of the Alabama River acts as a hydraulic barrier to impede further lateral migration. TCE did not exceed the MCL but was present in concentrations exceeding the RSL in isolated areas within the site.

PCE and TCE were also the only chemicals to exceed vapor intrusion screening levels (VISLs). The highest PCE concentrations in soil vapor were reported at MW-02S, downgradient of the RSA Energy Plant where PCE also is present in groundwater. Within the DEAP boundary, soil vapor TCE concentrations exceeding the VISL were reported at MW-08S. Outside the DEAP boundary, soil vapor TCE concentrations exceeded the VISL at the 10- and 50-foot vapor intrusion monitoring system (VIMS) points (VIMS-10 and VIMS-50, respectively), but did not extend to the Annex Building located within 100 feet of the VIMS. Based on the EI results, TCE in soil vapor at these locations is not related to the DEAP groundwater plume but is attributed to historical releases from other sources.

The results of the EI transducer study indicated surface water of the Alabama River communicates directly with, and is the primary influence of, the movement of surface water in the downstream portion of Cypress Creek and groundwater at MW-13S. Influence on the groundwater in the area of Cypress Creek from the Alabama River occurs as porewater exchange within Cypress Creek when water cycles between the Alabama River's surface water and the associated sediments and porewater of Cypress Creek. Because of the large volume of flow in the Alabama River near Montgomery, surface water from the Alabama River "backs up" into the lower reaches of Cypress Creek, interacts with the Cypress Creek sediments and porewater, and effectively acts as a hydraulic barrier that limits the migration of the PCE plume into the creek and dilutes concentrations of PCE at the downgradient edge.

A human health risk assessment, screening level ecological risk assessment, and remedial action alternatives analysis were performed based on the results of the EI to assess potential risks to human health and the environment and evaluate alternatives to mitigate those potential risks (CH2M, 2019c). The risk assessment indicated minimal potential future risks to human health exist due to PCE in groundwater, although potential future risks to human health due to TCE and/or PCE concentrations in soil vapor at the VIMS, MW-08S, and MW-02S through the VI exposure pathway were identified. The selected remedial actions documented in the ICP (CH2M, 2019a) provide risk management approaches to eliminate potential risks due to final site chemicals of concern (PCE in groundwater and PCE and TCE in soil vapor).

2. 2020 Groundwater Monitoring

2.1 Site Hydrogeology

The geology beneath the DEAP site consists of a thin soil layer on top of quaternary terrace deposits comprised of medium to coarse-grained sand, with interbedded clay and gravel lenses. Underlying these recent terrace deposits are Cretaceous sediments of the Eutaw, Gordo, and Coker formations. The Eutaw formation is an aquifer unit characterized by two thick layers of marine sands separated by a thin layer of marine clay (USGS, 1987). The terrace deposits and Eutaw formation comprise the shallow aquifer. The Gordo and Coker aquifers consist of an estimated 500 feet of interbedded clay, sand, and gravel above crystalline bedrock. The shallow aquifer is unconfined and 120 to 150 feet thick underneath the DEAP site, but a localized low permeability zone may exist from approximately 35 to 50 feet below ground surface (bgs) (ADEM, 1995). Beneath the shallow aquifer, a low-permeability sandy clay unit effectively separates it from the underlying Gordo and Coker formations.

Water levels measured in the shallow and intermediate aquifer monitoring wells at the DEAP site in April 2020 range from approximately 20 to 54 feet bgs (Table 1). Groundwater generally flows west-northwest toward Cypress Creek and the Alabama River (Figure 2). These results are consistent with historical data.

2.2 Groundwater Sampling

On April 28, 2020, groundwater samples were collected from seven shallow aquifer monitoring wells. These samples were analyzed for PCE to assess the stability of the PCE groundwater plume. Groundwater sampling was conducted using the EPA Region 4 low-flow purge method. Specific conductance, pH, and turbidity measurements were allowed to stabilize for three consecutive readings while a steady water level was maintained prior to collecting the sample. The results of the April 2020 groundwater sampling are summarized in Table 2; the July 2016 PCE concentrations for wells sampled in April 2020 are provided for comparison. Final water quality parameters for each well sampled are provided in Table 3. The extent of PCE greater than the MCL in groundwater at the DEAP site is presented on Figure 3. Time series trend charts of PCE concentrations for monitoring wells with more than two data points available are provided in Figures 4 through 8. The data quality evaluation and analytical laboratory report are included in Appendix B. Field records are provided in Appendix C.

Consistent with the conceptual site model detailed in the EI Report (CH2M, 2017) and historical results, two primary PCE plumes are present at the DEAP site (Figure 3). One plume originates near MW-01S and the RSA Energy Plant. Another plume originates near MW-12S; this plume is not downgradient of the RSA Energy Plant and likely had other sources contributed from various industries in the area. Except for MW-03S, where PCE concentrations increased from 6.27 micrograms per liter (µg/L) to 33.1 µg/L, PCE concentrations in groundwater at the site in April 2020 are similar to those reported in July 2016 (Table 2). At MW-03S, PCE concentrations fluctuated during the previous three sampling events conducted at this well in 2000 (21 µg/L), 2001 (22 µg/L), and 2007 (57 µg/L) (Figure 6); the April 2020 concentration is similar to these historical data. In the well closest to the RSA Energy Plant, MW-01S, PCE concentrations have declined overall since monitoring began at this well in May 2000 (Figure 4). At MW-02S (Figure 5) and MW-12S (Figure 8), concentrations have been stable and declining over the past several sampling events, respectively. Concentrations at MW-08S have increased overall since 2009, but remain lower than the historical maximum concentration (Figure 7).

MW-14S was installed in October 2019 to better refine the lateral extent of the downgradient portion of the PCE plume. During the first sampling event at this well in April 2020, MW-14S had an estimated PCE

concentration of 5.78 µg/L. This concentration is just slightly greater than the MCL of 5 µg/L, indicating that MW-14S closely defines the western boundary of the downgradient portion of the plume.

Overall, the results of the April 2020 groundwater sampling indicate the PCE groundwater plume is stable, and the western boundary of the downgradient extent has been defined. Based on these data, the conceptual site model developed for the DEAP during the EI and the selected remedy documented in the ICP (CH2M, 2019a) remains valid and is appropriate for use in evaluating conditions at this site.

3. Site Inspections and Interviews

3.1 Inspections and Interviews

From July through November 2020, onsite inspections and interviews were conducted at 10 selected parcels in the DEAP area (Figure 9). Some properties were selected based on historical knowledge of the site, while others were selected at random. The onsite inspections focused on the following:

- Overall use of the property
- Presence/absence of private-use groundwater wells on the property
- Use of subsurface structures (i.e., basements)

Figure 9 shows the properties that were selected for inspection (highlighted in blue) and properties that were inspected based on ICs that have been recently placed on them (highlighted in purple). The property owners are summarized in the table inset on Figure 9. Photographs of property and structures were taken where access was granted and are included in Appendix D. Owner interviews were conducted if possible. Records of interviews and onsite inspections are included in Appendix E. The results of the interviews and inspections are summarized in the following subsections.

3.1.1 308 North Lawrence Street – Air BnB

The owner of the property at 308 North Lawrence Street (Figure 9, MAP ID #67) was unable to schedule an interior building inspection due to scheduling conflicts but responded to a phone call and answered questions via email. Based on the email responses dated November 4, 2020, the property remains in commercial use, does not have private groundwater wells onsite, and has a basement that continues to be used solely for storage. A drive by inspection was conducted at this property and photographs were taken on August 13, 2020.

3.1.2 520 North Court Street – Capital Trailways Bus Washing Station

An onsite inspection and owner interview were conducted at the Capital Trailways on 520 North Court Street (Figure 9, MAP ID #11) on August 13, 2020. According to Mr. Michael Finlay, vice president and general manager of the facility, no private water wells are in use onsite. The well previously used for bus washing purposes was taken out of service in 2017 and abandoned through capping and plugging with 6 feet of concrete. The only subsurface structure is a maintenance pit in the shop area. Photographs taken at the site show it is still used as a commercial bus washing station and document the maintenance pit and the abandoned status of the well previously used for bus washing purposes.

3.1.3 619 North McDonough Street – Dennis Welding Supply Company

An onsite inspection and owner interview were conducted at the Dennis Welding Supply Company at 619 North McDonough Street (Figure 9, MAP ID #5) on July 23 and July 30, 2020, respectively. According to the owner, Mr. Richard Dennis, no private water wells are in use onsite, and the building does not have a basement. Rather, the building was constructed on a 3-foot slab. No intrusive work has been completed on the property that would potentially encounter groundwater. Photographs taken at the site show it is still used as a commercial welding supply, with gas cylinder storage outside and one existing building onsite.

3.1.4 East Jefferson Street/113 Madison Avenue – Episcopal Church Parking

An onsite inspection was conducted on July 21, 2020 at the parking lot of the Episcopal Church at 113 Madison Avenue, along East Jefferson Street (Figure 9, MAP ID #59). The owner was not available for

interview. Based on observations during the inspection, the lot does not have any private water wells or buildings, and no evidence of previous intrusive work was noted. Photographs taken at the site show the parking area, lack of buildings, and absence of new construction.

3.1.5 10 Tallapoosa Street – Earthlink

An onsite inspection was conducted on July 21, 2020 at the Earthlink building on the corner of Tallapoosa Street and North Court Street (building address 10 Tallapoosa Street) (Figure 9, MAP ID #77). The owner was not available for an interview. No private water wells or evidence of previous intrusive work outside the building were observed during the inspection, and the building does not appear to have a basement. Photographs taken at the site show the gated entrance to the lot, the apparent commercial use of the building, and vehicles and generators staged onsite.

3.1.6 401 Monroe Street – Max Credit Union

An onsite inspection was conducted on July 21, 2020 at the Max Credit Union on 401 Monroe Street (Figure 9, MAP ID #85). The owner was not available for an interview. Based on observations during the inspection, the lot does not have any private water wells and the building does not appear to have a basement. No evidence of previous intrusive work other than the credit union building was noted. Photographs taken at the site show the commercial use of the building as a credit union and the parking area.

3.1.7 317 North Decatur Street – Joe McClendon Service Center

An owner interview and onsite inspection were conducted at the Joe McClendon Service Center on 317 North Decatur Street (Figure 9, MAP ID #90) on July 15 and July 21, 2020, respectively. Based on previous discussion with the owner, Mr. Joe McClendon, a private water well exists onsite but was abandoned in the late 1990s by the previous owner (Mr. Mike Taylor with MTS Construction) with EPA oversight. The well is sealed with a 1-inch-thick steel plate and covered with 3 feet of concrete. Photographs taken during the site inspection show the interior and exterior of the commercial auto shop.

3.1.8 230 North Hull Street – Ordeman House

An interview with the property manager and an onsite inspection were conducted at the Ordeman House at 230 North Hull Street (Figure 9, MAP ID #36) on July 14 and July 23, 2020, respectively. There are offices and a museum in the aboveground floors, and a basement that is used for artifact storage, museum space, and a dining area setup with no consistent occupants. The basement, which was built in the 1880s, has a chalk base. Rainwater has been observed to seep into the basement. Photographs taken during the site inspection show the interior and exterior of the Ordeman House and its grounds.

3.1.8.1 Discovery of Historical Wells

During the interview with the Landmark Foundation regarding the Ordeman House, Mr. Collier Neely noted the presence of both a historical well onsite at the Ordeman House and a pump well on nearby property. Following the interview, the bucket well and pump well were located (Figure 10) and photographs were taken to document their status (Appendix D). Both wells are located on Old Alabama Town property, which is managed by the Landmark Foundation and owned by the City of Montgomery. ADEM was notified of the discovery of the historical wells in an email dated September 1, 2020.

The well at Ordeman House is covered with a wooden cover and a wire screen, preventing access to the water in the well. The well is also behind a locked gate to the property, further limiting public access. The Ordeman House well was gauged on August 26, 2020, with a measured depth to water of approximately 53 feet bgs. The pump well is also behind a locked gate and is chained to prevent use.

Both historical wells are on property managed by the Landmarks Foundation and owned by the City of Montgomery. Due to the historical significance of the wells and their presence in a historical district, the DEA proposes to preserve the wells and add them to the IC inspections for the DEAP. The DEA will check to confirm that the protective measures preventing use of the bucket and pump wells (including chains, covers, screens, locks, etc.) remain in place during the inspections, thereby ensuring the potential exposure pathway for groundwater remains incomplete for current and future receptors.

3.1.9 434 North McDonough Street – Molton House

An interview with the property manager and an onsite inspection were conducted at the Molton House at 434 North McDonough Street (Figure 9, MAP ID #94) on July 14 and July 23, 2020, respectively. According to Mr. Collier Neely with the Landmarks Foundation (the property manager) and observations during the inspection, no wells are onsite and no evidence of intrusive work that could result in contact with groundwater was identified. There is a partial basement used only for storage. The first floor is used as office space for Jennie Weller Catering. Photographs taken during the site inspection show the exterior and the grounds of Molton House, in addition to the basement storage space.

3.1.10 615 North Perry Street – Sabel Steel

An onsite inspection was conducted on July 21, 2020 at the Sabel Steel property on 615 North Perry Street (Figure 9, MAP ID #98). The owner was not available for interview. Based on observations during the inspection, the lot does not have any private water wells and the building does not appear to have a basement. No evidence of previous intrusive work that could result in contact with groundwater. The lot appears to be used for truck trailer parking. Photographs taken at the site show the building and parking area.

3.2 Inspection of City Ordinance Properties

A drive-by inspection of properties on the 300 block of Madison Avenue was conducted on July 21, 2020 to verify that properties in that area do not have residential use on the first floor, in accordance with City Ordinance 36-2019, enacted September 3, 2019. As documented in the photographs in Appendix D, the properties on the 300 block of Madison Avenue are commercial business.

3.3 Inspection of City Environmental Covenant Properties

3.3.1 North Lawrence Street

A drive-by inspection was completed on July 21, 2020 to verify that the property at North Lawrence Street (Parcel Number 10 03 07 2 203 014.000) continues to be used as a parking lot in accordance with the EC placed on the property on September 11, 2019. As documented in the photographs in Appendix D, the area remains a parking lot.

3.3.2 Washington Avenue Right-of-Way

A drive-by inspection was completed on July 21, 2020 to verify that the Washington Avenue right-of-way located approximately 154 feet from the northeast intersection of South Lawrence Street and Washington Avenue, near the VIMS, remains a sidewalk and public right-of-way in accordance with the EC placed on the property on September 11, 2019. As documented in the photographs in Appendix D, the area remains a public right-of-way.

4. Environmental Covenant Management

Each year, the DEA sends out letters to the downtown property owners to notify them of the ICs placed on downtown properties and to promote the use of ECs. The notification letters are discussed in more detail in Section 6 of this report.

One new EC for property within the DEA project site was filed in 2020. As noted previously, an EC was filed by Mr. Joe McClendon for the McClendon Auto Repair property at 317 North Decatur Street. The covenant documents the potential presence of PCE in groundwater/soil vapor and TCE in soil vapor in the DEAP site, and permanently prohibits the use of, access of, interference with, and/or consumption of groundwater beneath the property without prior written approval from ADEM. The covenant was signed by ADEM on November 18, 2020. A copy of the final EC for 317 North Decatur Street is included in Appendix F.

5. Review of City Building Permits and Records

In 2020, the City of Montgomery issued 20 building permits for projects in the DEAP site boundary. Permits issued included certificates of occupancy, commercial grading and alteration/renovation permits, commercial addition permits, and signage permits. Each of the projects was identified as being in the DEAP boundary (Figure 1) using the City geographic information system (GIS) system, which has a system to flag permits within the site boundary. The City Engineering Department reviews new construction, and Jacobs reviews flagged permits to determine if the project might result in potential exposure to groundwater. None of the projects had potential exposure to groundwater, and no applications to drill wells in the DEAP boundary and no new construction that required a vapor barrier were submitted to the City Building Department in 2020.

6. IC Notification Letters

Feedback on the 2019 annual IC notification letters (approximately 70 letters were mailed out for the owners of the 99 property parcels within the DEA site boundary, some of whom own multiple parcels) was received in December 2019 and February 2020 from three property owners. Telephone logs of the feedback received are included in Appendix G.

The 2020 annual IC notification letters (approximately 70 letters) were mailed out to owners of properties within the DEA site boundary the week of November 9, 2020. An example of the notification letters is included in Appendix F (note that the bullet regarding the 300 block of Madison is included only in letters to the property owners on that block). The property owners were identified using the updated property database provided by Montgomery County on October 19, 2020.

7. Community Involvement and Outreach

7.1 Community Outreach Group

The DEA facilitates a Community Outreach Group (COG) of interested citizens who live, work, or own property in downtown Montgomery. The COG provides a link between the DEA and the community, and helps to keep the downtown community informed about project activities. No meetings of the COG were held in 2020; periodic updates about project status were provided to COG members and stakeholders via email. Future conference calls and/or meetings will be conducted as needed.

7.2 Project Website

A website for the DEAP can be accessed at: www.capitalcityplume.org. The website is a source of project-related information available to the public, including but not limited to DEAP site background, remedial actions conducted and in place, EC opportunities, links to project reports, and project contact information. The website is updated periodically as new information of potential interest to the community becomes available. In 2020, a total of 1,937 website visits occurred and no requests for information were received. The website will continue to be updated as new information becomes available.

8. Conclusion and Recommendations

The results of the April 2020 annual groundwater sampling at the DEA site indicate that the groundwater PCE plume is stable and the western boundary of the downgradient portion of the plume has been delineated at MW-14S. Therefore, the conceptual site model developed for the DEAP during the EI and the selected remedy documented in the ICP remains valid and is appropriate for use in evaluating conditions at this site.

Random inspections and interviews conducted at 10 properties from July through November 2020 did not identify any properties with first floor residential use within 100 feet of the plume. However, two historical wells were identified. Both wells are behind locked gates and have restricted access preventing their use. Due to their presence in a historical district, the wells were preserved and will be included in the inspections to ensure the protective measures barring their use (gates, locks, screens, etc.) remain in place.

Driving inspections of City ordinance and EC properties on the 300 block of Madison Avenue, North Lawrence Street, and the Washington Avenue right of way near the VIMS indicated the use of these properties is in accordance with the relevant ordinance and ECs. Inquiries from three property owners, including the filing of one EC, were received after the 2019 IC notification letters were sent. There have been no changes in land use within the DEAP site boundary in 2020.

It is recommended that the groundwater sampling, site inspection, and IC notification activities be continued annually for at least 2 more years. After that time, the DEA may request a change to performing groundwater sampling, site inspections, and IC notifications every 5 years if groundwater concentrations remain stable or decreasing. The City of Montgomery will continue to monitor activities (building permits, new construction, well permits, etc.) through the Building Department and Engineering Department to identify projects with potential exposure to groundwater, applications to drill wells within the DEAP boundary, and new construction requiring a vapor barrier.

9. References

Alabama Department of Environmental Management (ADEM). 1995. *Preliminary Assessment, Capitol City Plume, Montgomery, Alabama*. February.

CH2M HILL Engineers, Inc. (CH2M). 2016. *Technical Work Plan - Downtown Environmental Assessment Project, Montgomery, Alabama*. Prepared for Alabama Department of Environmental Management by the Downtown Environmental Alliance. May.

CH2M HILL Engineers, Inc. (CH2M). 2017. *Supplemental Environmental Investigation Report Downtown Environmental Assessment Project, Montgomery, Alabama*. Prepared for Alabama Department of Environmental Management by the Downtown Environmental Alliance. October.

CH2M HILL Engineers, Inc. (CH2M). 2019a. *Institutional Controls Plan Downtown Environmental Assessment Project, Montgomery, Alabama*. Prepared for Alabama Department of Environmental Management by the Downtown Environmental Alliance. July.

CH2M HILL Engineers, Inc. (CH2M). 2019b. *Remedial Action Report Downtown Environmental Assessment Project, Montgomery, Alabama*. Prepared for Alabama Department of Environmental Management by the Downtown Environmental Alliance. November.

CH2M HILL Engineers, Inc. (CH2M). 2019c. *Risk Assessment/Alternatives Analysis Report Downtown Environmental Assessment Project, Montgomery, Alabama*. Prepared for Alabama Department of Environmental Management by the Downtown Environmental Alliance. February.

CH2M HILL Engineers, Inc. (CH2M). 2020. *Recommendation to De-propose from the National Priorities List (NPL) – Downtown Environmental Assessment Project (formerly the Capital City Plume)*. Prepared for U.S. Environmental Protection Agency by the Downtown Environmental Alliance. May.

U.S. Geological Survey (USGS). 1987. *Geohydrology and Susceptibility of Major Aquifers to Surface Contamination in Alabama, Area 8*. Scott, John C., R.H. Cobb, and R.D. Castleberry. USGS, Water Resources Investigation Report 86-4360.

Tables

Table 1. Groundwater Elevations - April 27, 2020

2020 Progress Report, DEAP, Montgomery, Alabama

Well	TOC Elevation	DTW	Groundwater Elevation
Shallow Interval Wells			
MW-01S*	189.37	34.94	154.43
MW-02S	188.59	36.23	152.36
MW-03S	206.18	52.48	153.70
MW-08S	173.46	30.95	142.51
MW-09S	213.41	52.15	161.26
MW-10S	212.67	53.82	158.85
MW-12S	157.58	19.70	137.88
MW-13S	158.90	24.10	134.80
MW-14S	158.38	23.73	134.65
Intermediate Interval Wells			
MW-01I	190.00	36.02	153.98
MW-05I	210.98	54.41	156.57
MW-07I	179.76	30.61	149.15
MW-07S	179.65	30.56	149.09
MW-08I	173.42	30.90	142.52
MW-12I	157.82	19.81	138.01

Notes:

Elevation reported in feet above mean sea level.

* MW-01S was gauged on April 28, 2020

DEAP = Downtown Environmental Assessment Project

DTW = depth to water in feet below TOC

TOC = top of casing in feet above mean sea level

Table 2. Groundwater Sampling Results
2020 Progress Report, DEAP, Montgomery, Alabama

Station ID	Date Sampled	April 2020 PCE Concentration	July 2016 PCE Concentration
Shallow Interval Wells			
MW-01S	4/28/2020	1 U	1.56
MW-02S	4/28/2020	**45.6 J**	**34.1**
MW-03S	4/28/2020	**33.1 J**	**6.27**
MW-08S	4/28/2020	**80.7 J**	**78.4**
MW-12S	4/28/2020	**30.7 J**	**58.9**
MW-13S	4/28/2020	**209**	**174**
MW-13S FDUP	4/28/2020	**204**	**174**
MW-14S	4/28/2020	**5.78 J**	N/A

Notes:
Concentrations presented in micrograms per liter (µg/L).
Bold text indicates concentration exceeds the MCL (5 µg/L).
PCE = tetrachloroethene
FDUP = field duplicate
MCL = U.S. Environmental Protection Agency Maximum Contaminant Level
DEAP = Downtown Environmental Assessment Project
J = estimated concentration due to laboratory control sample recovery slightly above control limits; the result may be biased high
U = analyte was not detected

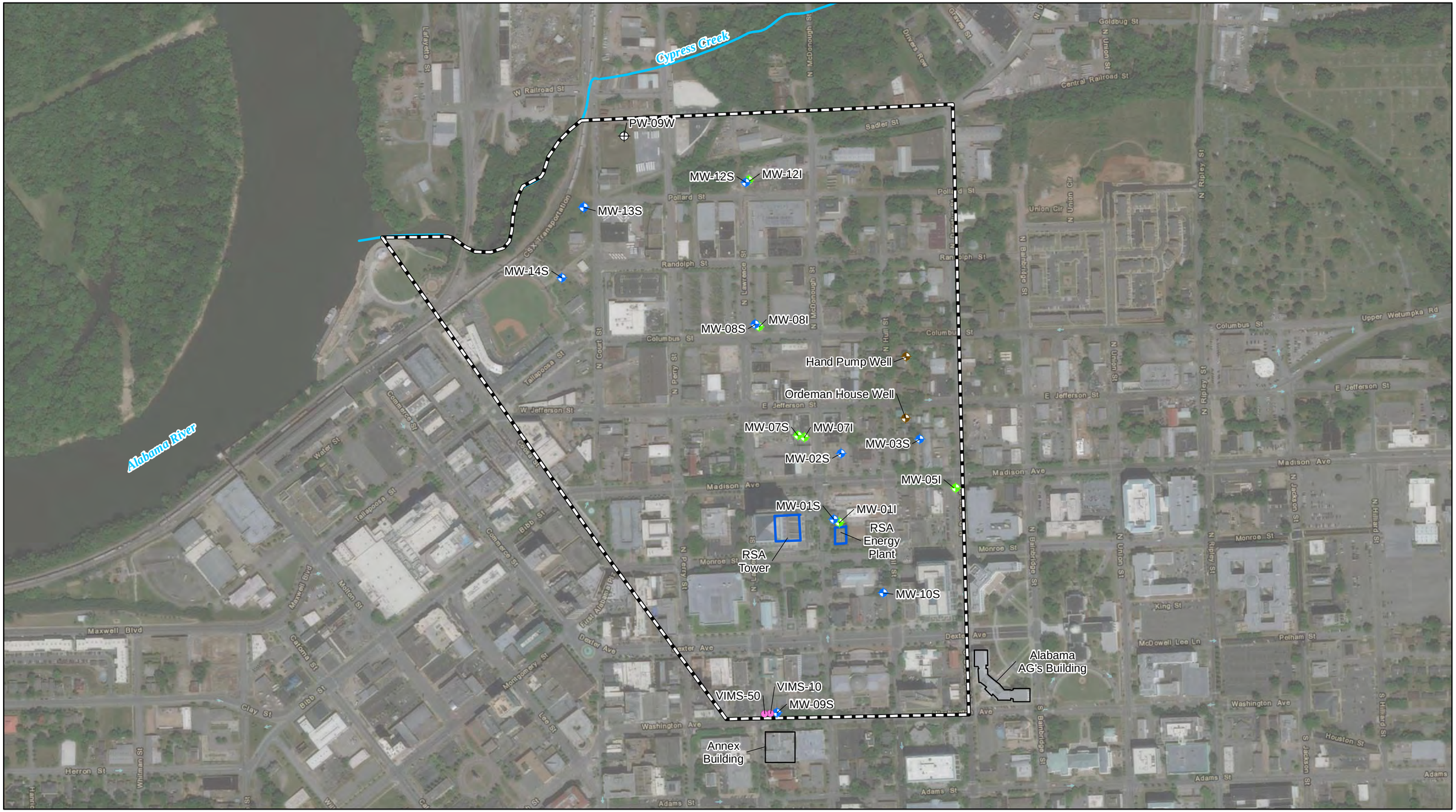
Table 3. Field Parameter Data

2020 Progress Report, DEAP, Montgomery, Alabama

Station	Date Collected	pH (standard unit)	Conductivity (µS/cm)	Temperature (°C)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)
MW-01S	4/28/2020	5.12	182	26.03	8.59	226.2	18.20
MW-02S	4/28/2020	4.79	198	25.36	6.11	258.9	10.80
MW-03S	4/28/2020	4.60	153	21.99	5.04	254.8	6.13
MW-08S	4/28/2020	4.51	204	24.49	5.61	261.9	1.68
MW-12S	4/28/2020	4.90	160	21.85	4.33	259.4	7.32
MW-13S	4/28/2020	4.86	170	21.90	5.16	248.7	1.46
MW-14S	4/28/2020	4.79	175	23.74	4.42	255.7	0.84

Notes:
µS/cm = microsiemens per centimeter
°C = degrees Celsius
mg/L = milligrams per liter
mV = millivolts
NTU = nephelometric turbidity units
DEAP = Downtown Environmental Assessment Project

Figures



LEGEND

- Shallow Monitoring Well
- Intermediate Monitoring Well
- Historical Well
- Former City Water Supply Well
- VIMS
- RSA Building
- Site Boundary

Notes:
1. AG - Attorney General
2. RSA - Retirement Systems of Alabama
3. VIMS - Vapor Intrusion Monitoring System

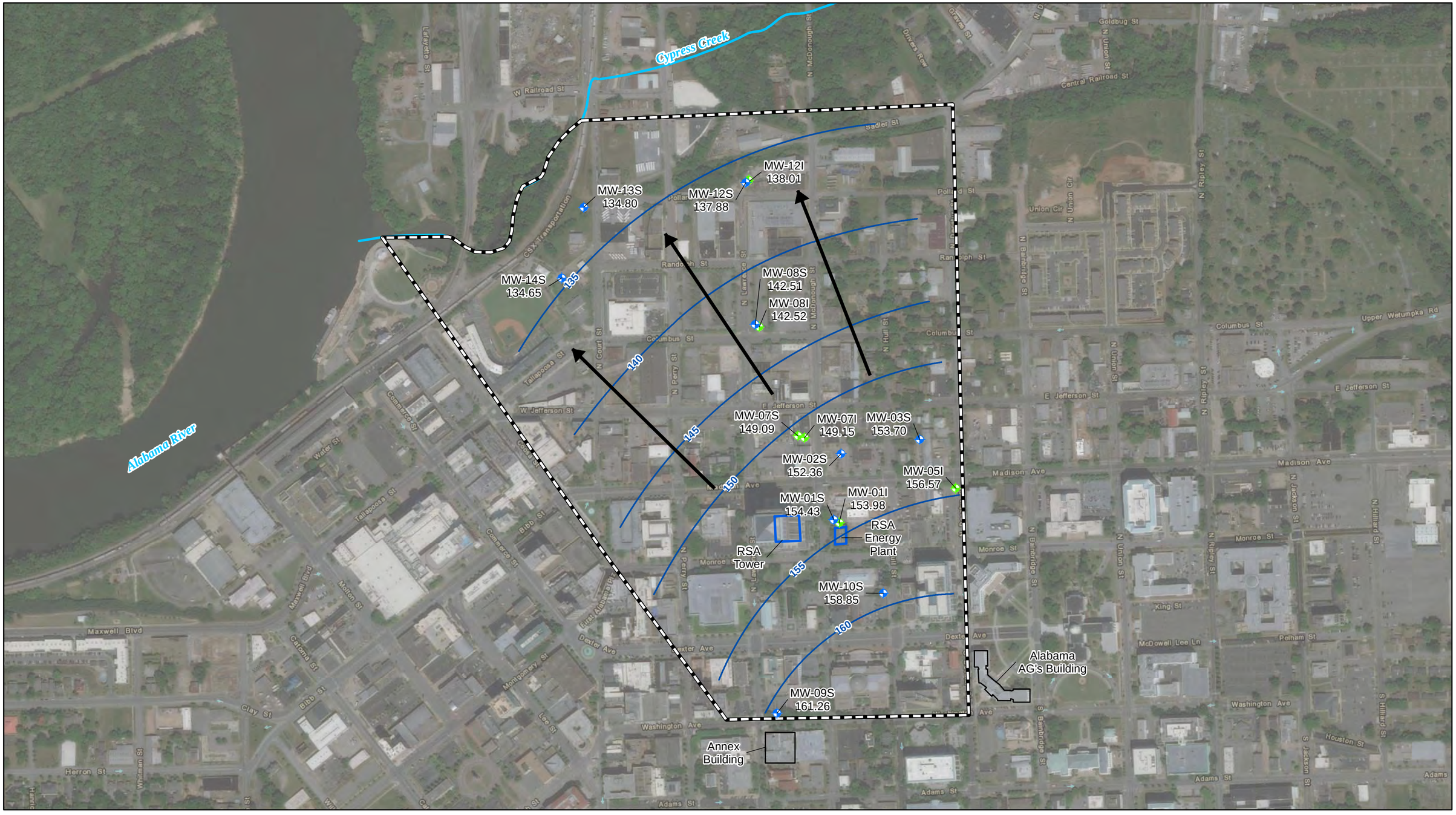
N

0 250 500
Feet

FIGURE 1
Site Map
2020 Remedial Action Progress Report
Downtown Environmental Assessment Project
Montgomery, AL

ch2m.

\\dc1vs01\GISProj\M\MontgomeryDEAP\MapFiles\2020_RAP\Fig1_SiteBoundary.mxd AESPEJO 2/11/2021



LEGEND

- Shallow Monitoring Well
- Intermediate Monitoring Well
- Shallow Potentiometric Contour
- Generalized Groundwater Flow Direction
- RSA Building
- Site Boundary

Notes:
1. AG - Attorney General
2. RSA - Retirement Systems of Alabama
3. Intermediate wells not used in contouring. MW-7S is considered an intermediate monitoring well due to depth of screen similar to other intermediate monitoring wells.
4. Groundwater elevations presented in feet above mean sea level.
5. Reach of Cypress Creek is presented as Reach 4, as defined in Baseline Biological Monitoring Results for the Cypress Creek Aquatic Ecosystem Restoration Feasibility Study (CH2M, 2012).

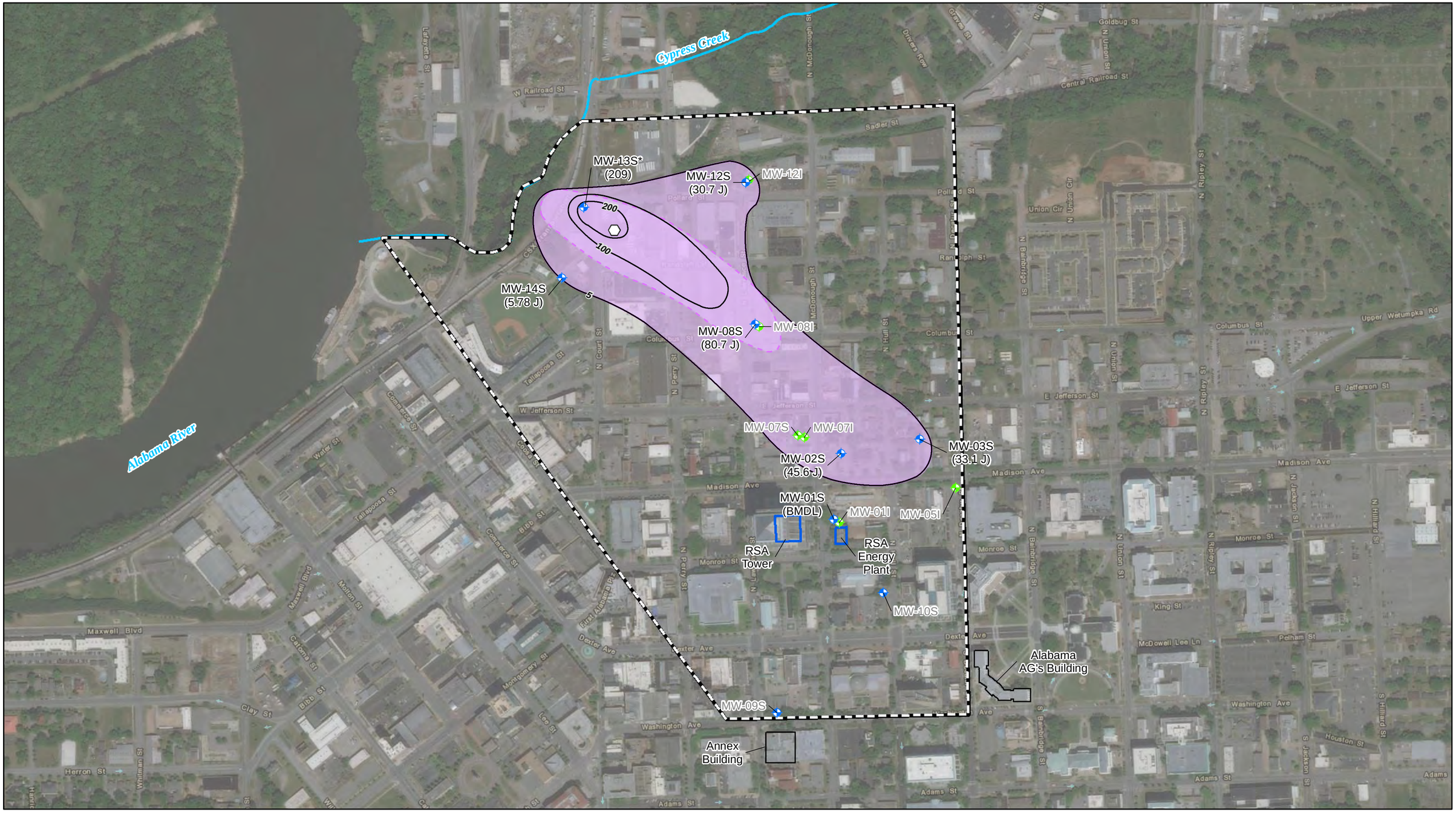
N

0 250 500
Feet

FIGURE 2
April 2020 Shallow Potentiometric Surface
2020 Remedial Action Progress Report
Downtown Environmental Assessment Project
Montgomery, AL

ch2m.

\\dc1vs01\GISProj\M\MontgomeryDEAP\MapFiles\2020_RAP\Fig2_April_2020_Shallow_Potentiometric_Surface.mxd AESPEJO 2/11/2021



LEGEND

- Shallow Monitoring Well
- Intermediate Monitoring Well
- Isoconcentration Contour for PCE in µg/L
- Commercial Bus-Washing Station
- Approximate Extent of PCE > 5 µg/L
- RSA Building
- Site Boundary

Notes:
1. AG = Attorney General
2. BMDL = below method detection limit
3. J = concentration is estimated
4. PCE = tetrachloroethene
5. RSA = Retirement Systems of Alabama
6. µg/L = micrograms per liter
7. * = field duplicate sample location, highest result presented
8. (34.1) = PCE concentration in groundwater in µg/L
9. Well IDs in gray were not sampled.

N

0 250 500
Feet

FIGURE 3
PCE Groundwater Results - April 2020
2020 Remedial Action Progress Report
Downtown Environmental Assessment Project
Montgomery, AL

ch2m.

\\dc1vs01\GISProj\M\MontgomeryDEAP\MapFiles\2020_RAP\Fig3_April_2020_PCE_GW_Results.mxd AESPEJO 2/11/2021

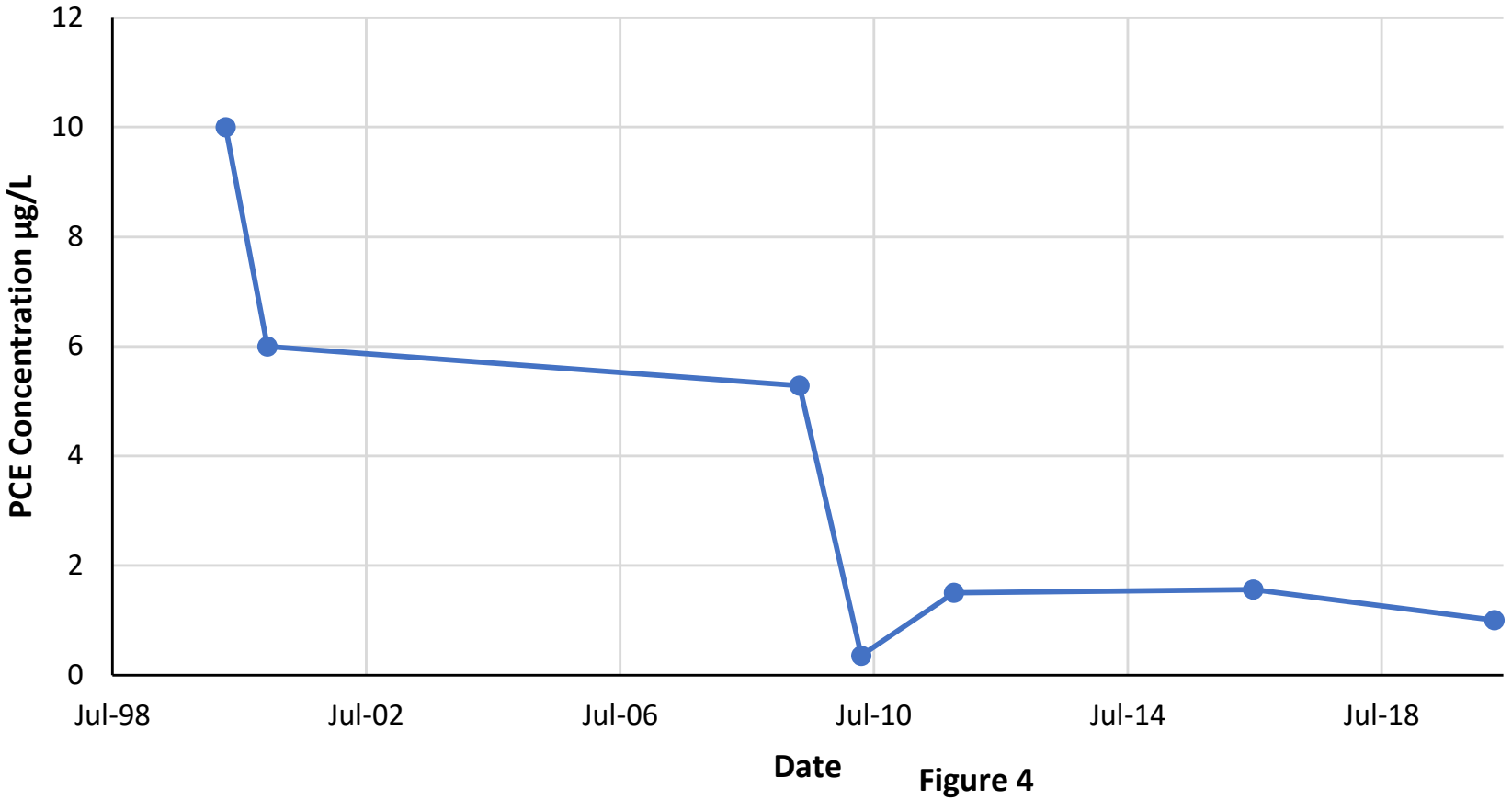


Figure 4
PCE Concentrations in MW-01S
2020 Remedial Action Progress Report
Downtown Environmental Assessment Project

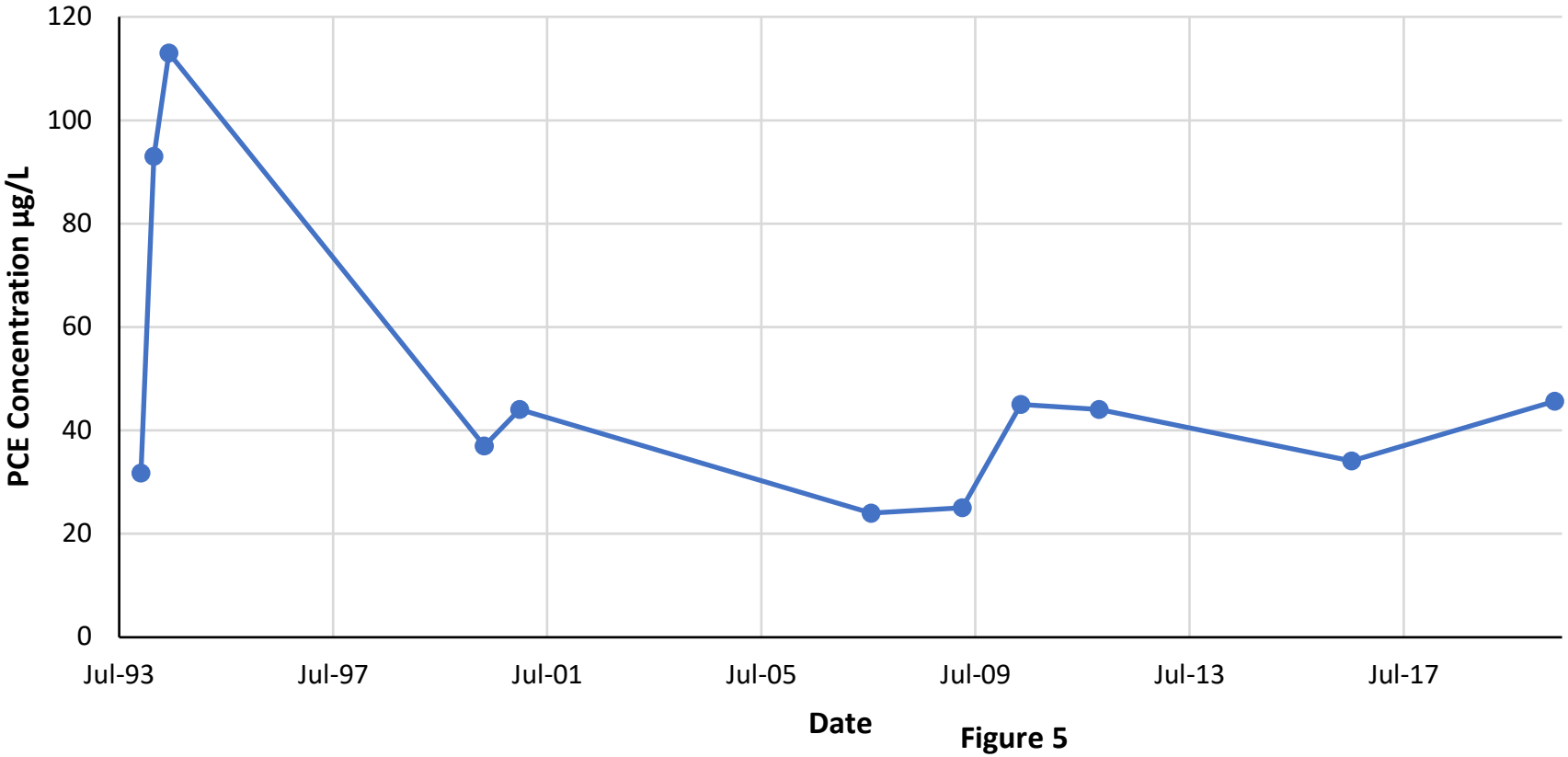


Figure 5
PCE Concentrations in MW-02S
2020 Remedial Action Progress Report
Downtown Environmental Assessment Project

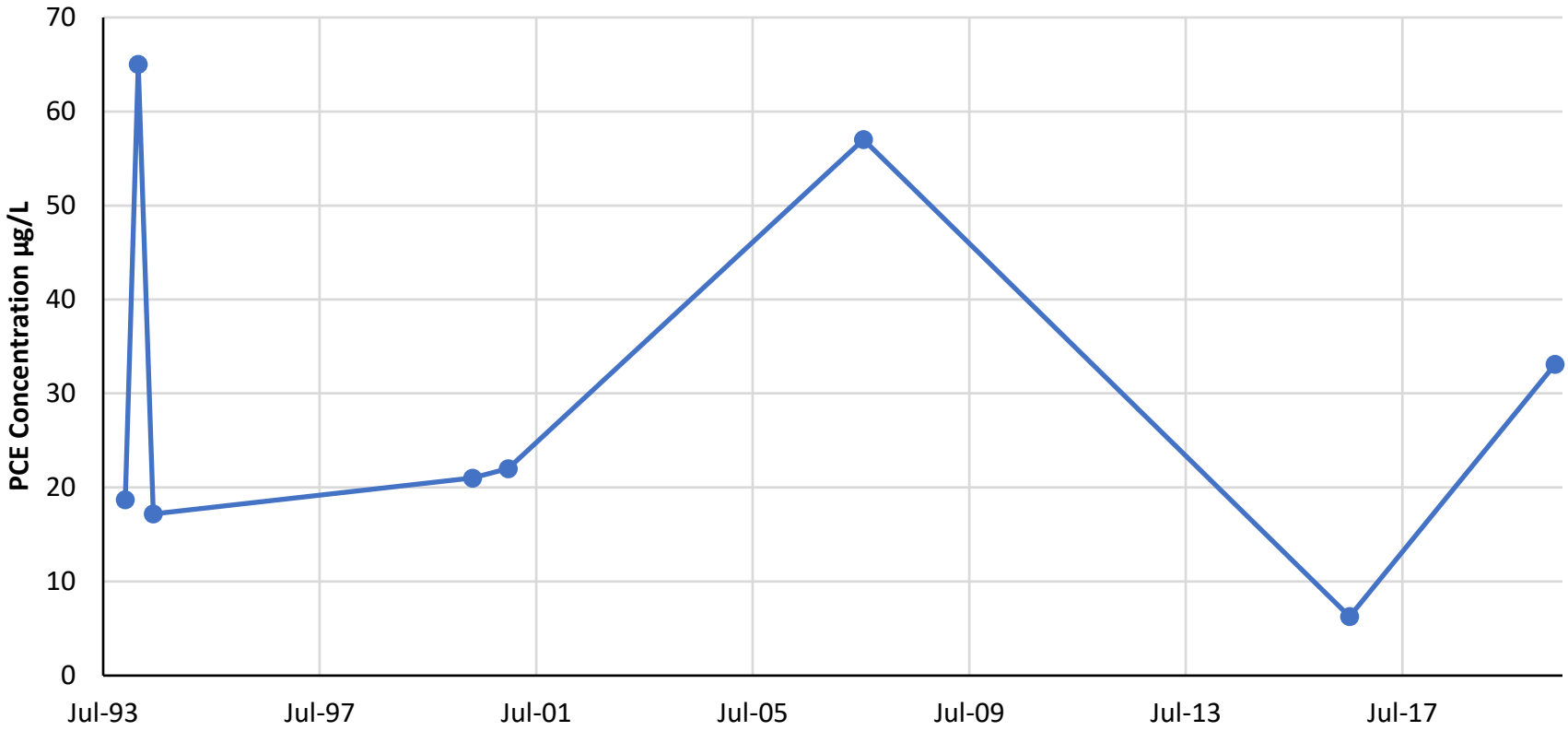


Figure 6
PCE Concentrations in MW-03S
2020 Remedial Action Progress Report
Downtown Environmental Assessment Project

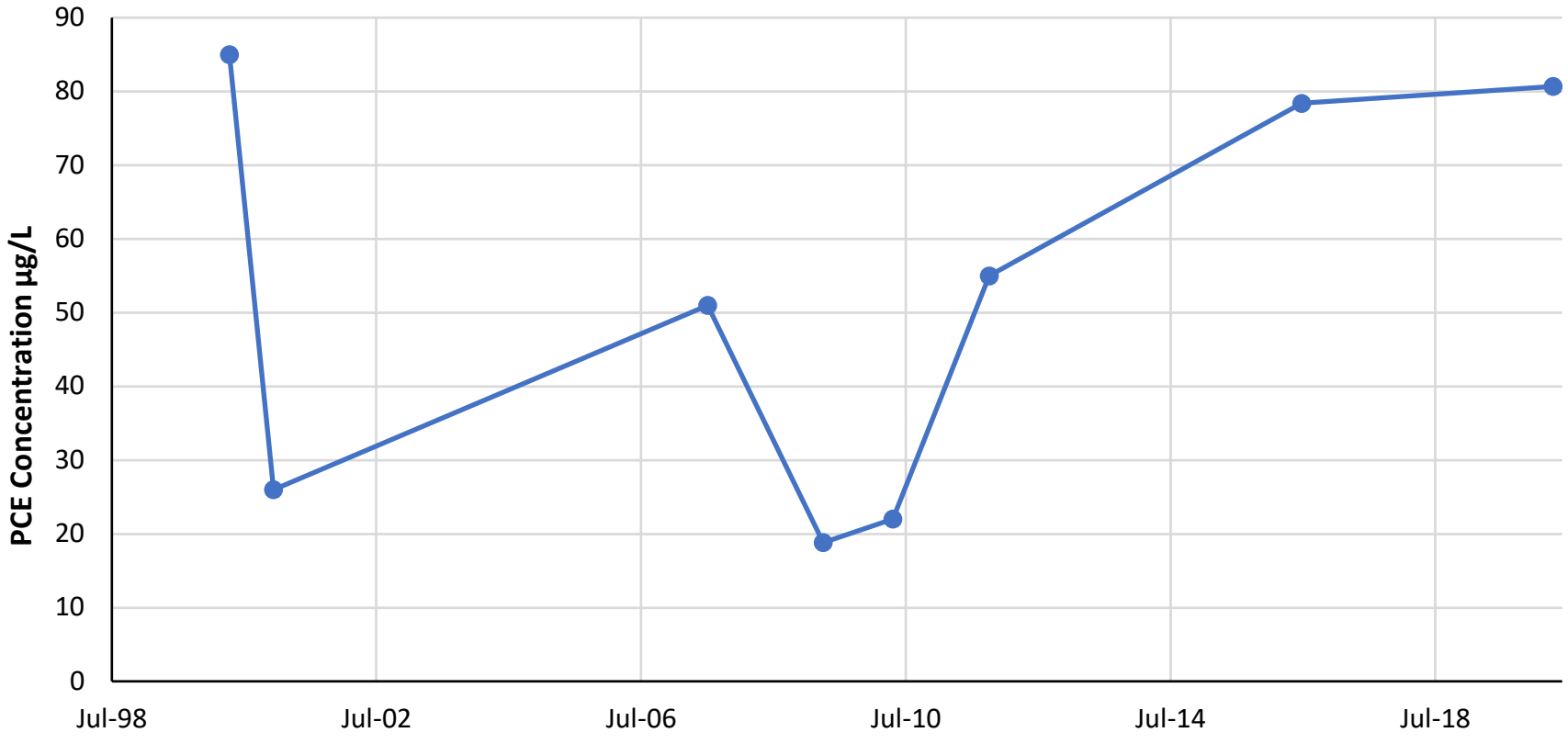


Figure 7
PCE Concentrations in MW-08S
2020 Remedial Action Progress Report
Downtown Environmental Assessment Project

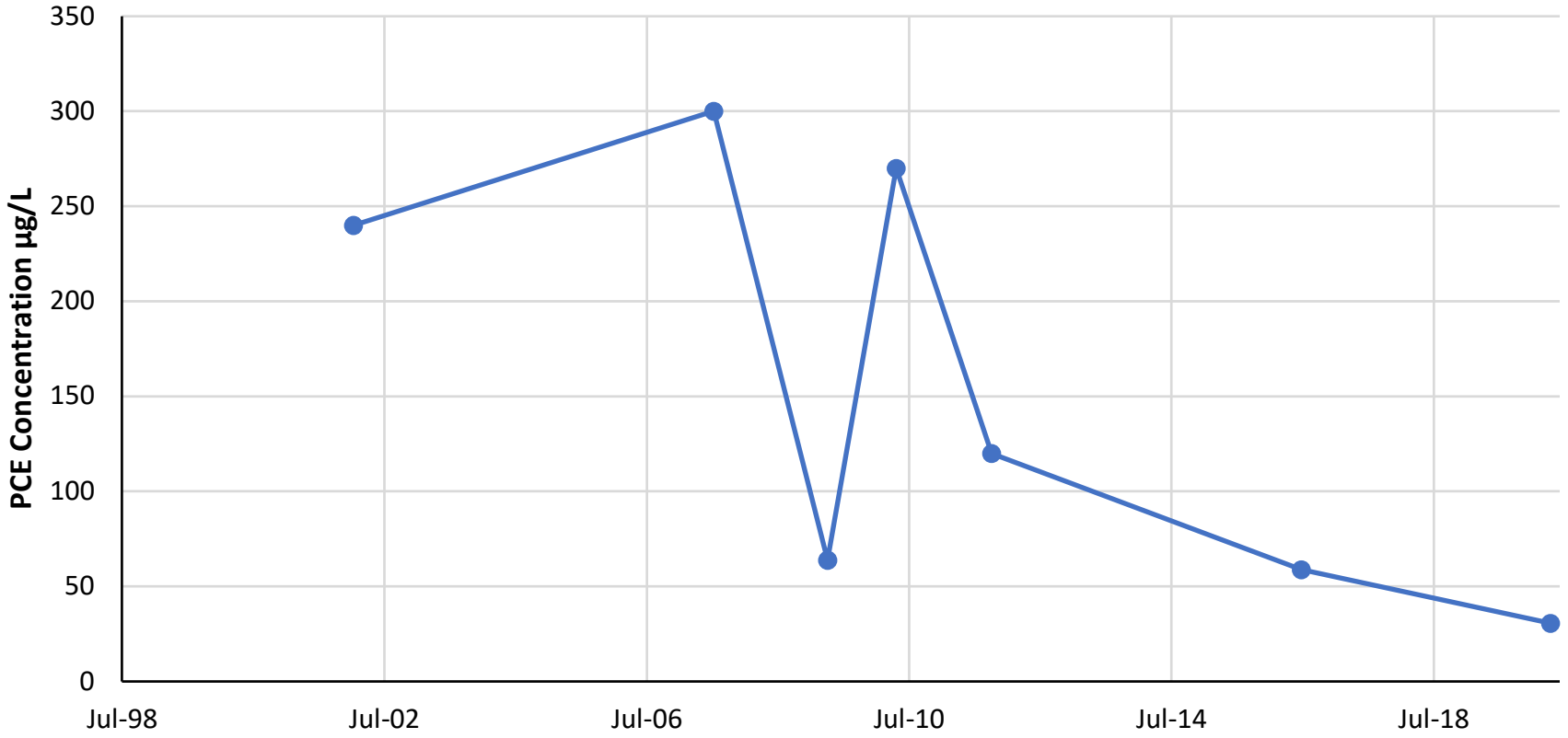
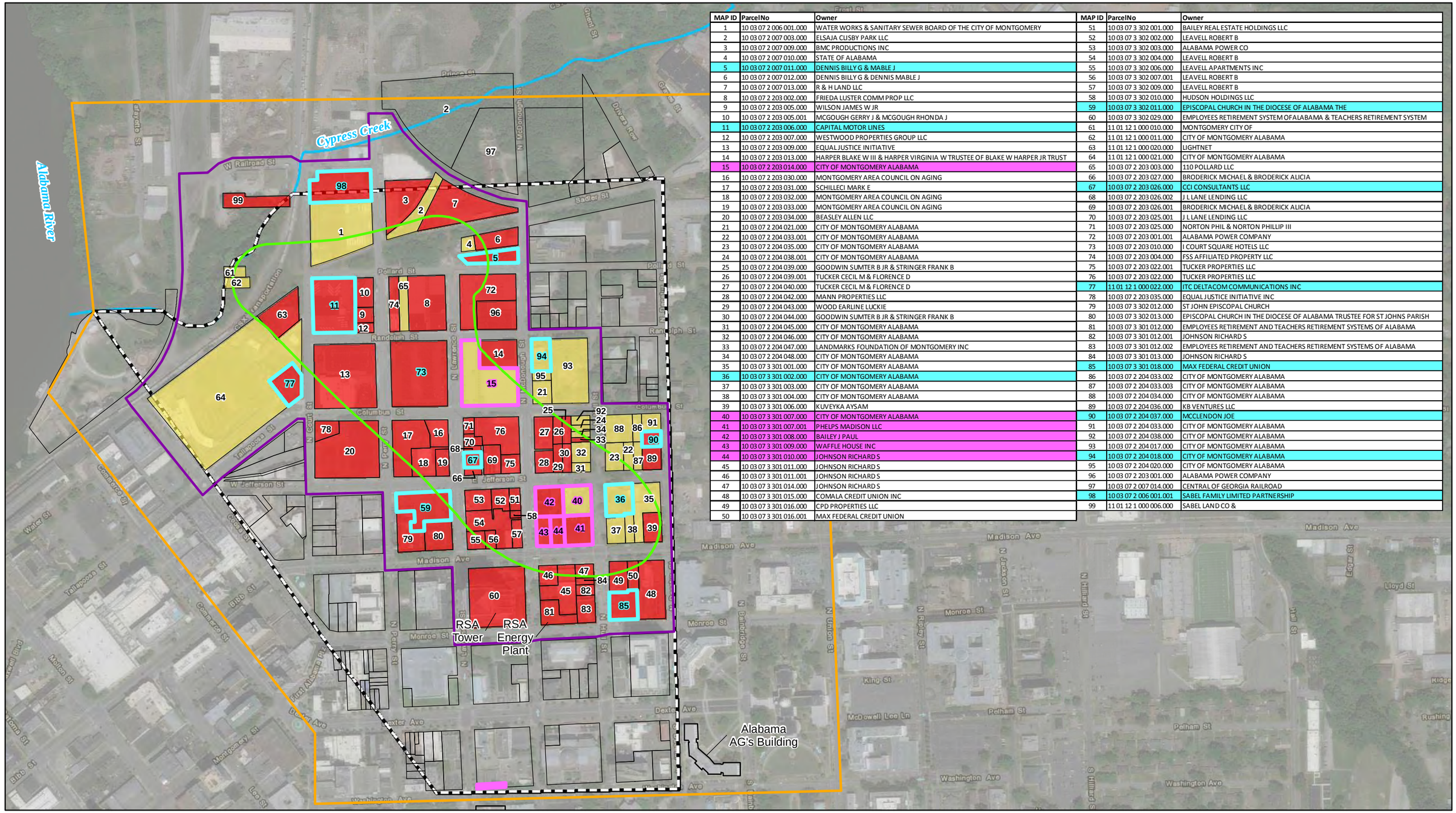


Figure 8
PCE Concentrations in MW-12S
2020 Remedial Action Progress Report
Downtown Environmental Assessment Project



MAP ID	ParcelNo	Owner	MAP ID	ParcelNo	Owner
1	10 03 07 2 006 001.000	WATER WORKS & SANITARY SEWER BOARD OF THE CITY OF MONTGOMERY	51	10 03 07 3 302 001.000	BAILEY REAL ESTATE HOLDINGS LLC
2	10 03 07 2 007 003.000	ELSAJA CLISBY PARK LLC	52	10 03 07 3 302 002.000	LEAVELL ROBERT B
3	10 03 07 2 007 009.000	BMC PRODUCTIONS INC	53	10 03 07 3 302 003.000	ALABAMA POWER CO
4	10 03 07 2 007 010.000	STATE OF ALABAMA	54	10 03 07 3 302 004.000	LEAVELL ROBERT B
5	10 03 07 2 007 011.000	DENNIS BILLY G & MABLE J	55	10 03 07 3 302 006.000	LEAVELL APARTMENTS INC
6	10 03 07 2 007 012.000	DENNIS BILLY G & DENNIS MABLE J	56	10 03 07 3 302 007.001	LEAVELL ROBERT B
7	10 03 07 2 007 013.000	R & H LAND LLC	57	10 03 07 3 302 009.000	LEAVELL ROBERT B
8	10 03 07 2 203 002.000	FRIEDA LUSTER COMM PROP LLC	58	10 03 07 3 302 010.000	HUDSON HOLDINGS LLC
9	10 03 07 2 203 005.000	WILSON JAMES W JR	59	10 03 07 3 302 011.000	EPISCOPAL CHURCH IN THE DIOCESE OF ALABAMA THE
10	10 03 07 2 203 005.001	MCGOUGH GERRY J & MCGOUGH RHONDA J	60	10 03 07 3 302 029.000	EMPLOYEES RETIREMENT SYSTEM OF ALABAMA & TEACHERS RETIREMENT SYSTEM
11	10 03 07 2 203 006.000	CAPITAL MOTOR LINES	61	11 01 12 1 000 010.000	MONTGOMERY CITY OF
12	10 03 07 2 203 007.000	WESTWOOD PROPERTIES GROUP LLC	62	11 01 12 1 000 011.000	CITY OF MONTGOMERY ALABAMA
13	10 03 07 2 203 009.000	EQUAL JUSTICE INITIATIVE	63	11 01 12 1 000 020.000	LIGHTNET
14	10 03 07 2 203 013.000	HARPER BLAKE W III & HARPER VIRGINIA W TRUSTEE OF BLAKE W HARPER JR TRUST	64	11 01 12 1 000 021.000	CITY OF MONTGOMERY ALABAMA
15	10 03 07 2 203 014.000	CITY OF MONTGOMERY ALABAMA	65	10 03 07 2 203 003.000	110 POLLARD LLC
16	10 03 07 2 203 030.000	MONTGOMERY AREA COUNCIL ON AGING	66	10 03 07 2 203 027.000	BRODERICK MICHAEL & BRODERICK ALICIA
17	10 03 07 2 203 031.000	SCHILLECI MARK E	67	10 03 07 2 203 026.000	CCI CONSULTANTS LLC
18	10 03 07 2 203 032.000	MONTGOMERY AREA COUNCIL ON AGING	68	10 03 07 2 203 026.002	J L LANE LENDING LLC
19	10 03 07 2 203 033.000	MONTGOMERY AREA COUNCIL ON AGING	69	10 03 07 2 203 026.001	BRODERICK MICHAEL & BRODERICK ALICIA
20	10 03 07 2 203 034.000	BEASLEY ALLEN LLC	70	10 03 07 2 203 025.001	J L LANE LENDING LLC
21	10 03 07 2 204 021.000	CITY OF MONTGOMERY ALABAMA	71	10 03 07 2 203 025.000	NORTON PHIL & NORTON PHILLIP III
22	10 03 07 2 204 033.001	CITY OF MONTGOMERY ALABAMA	72	10 03 07 2 203 001.001	ALABAMA POWER COMPANY
23	10 03 07 2 204 035.000	CITY OF MONTGOMERY ALABAMA	73	10 03 07 2 203 010.000	I COURT SQUARE HOTELS LLC
24	10 03 07 2 204 038.001	CITY OF MONTGOMERY ALABAMA	74	10 03 07 2 203 004.000	FSS AFFILIATED PROPERTY LLC
25	10 03 07 2 204 039.000	GOODWIN SUMTER B JR & STRINGER FRANK B	75	10 03 07 2 203 022.001	TUCKER PROPERTIES LLC
26	10 03 07 2 204 039.001	TUCKER CECIL M & FLORENCE D	76	10 03 07 2 203 022.000	TUCKER PROPERTIES LLC
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28	10 03 07 2 204 042.000	MANN PROPERTIES LLC	78	10 03 07 2 203 035.000	EQUAL JUSTICE INITIATIVE INC
29	10 03 07 2 204 043.000	WOOD EARLINE LUCKIE	79	10 03 07 3 302 012.000	ST JOHN EPISCOPAL CHURCH
30	10 03 07 2 204 044.000	GOODWIN SUMTER B JR & STRINGER FRANK B	80	10 03 07 3 302 013.000	EPISCOPAL CHURCH IN THE DIOCESE OF ALABAMA TRUSTEE FOR ST JOHNS PARISH
31	10 03 07 2 204 045.000	CITY OF MONTGOMERY ALABAMA	81	10 03 07 3 301 012.000	EMPLOYEES RETIREMENT AND TEACHERS RETIREMENT SYSTEMS OF ALABAMA
32	10 03 07 2 204 046.000	CITY OF MONTGOMERY ALABAMA	82	10 03 07 3 301 012.001	JOHNSON RICHARD S
33	10 03 07 2 204 047.000	LANDMARKS FOUNDATION OF MONTGOMERY INC	83	10 03 07 3 301 012.002	EMPLOYEES RETIREMENT AND TEACHERS RETIREMENT SYSTEMS OF ALABAMA
34	10 03 07 2 204 048.000	CITY OF MONTGOMERY ALABAMA	84	10 03 07 3 301 013.000	JOHNSON RICHARD S
35	10 03 07 3 301 001.000	CITY OF MONTGOMERY ALABAMA	85	10 03 07 3 301 018.000	MAX FEDERAL CREDIT UNION
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39	10 03 07 3 301 006.000	KUVEYKA AYSAM	89	10 03 07 2 204 036.000	KB VENTURES LLC
40	10 03 07 3 301 007.000	CITY OF MONTGOMERY ALABAMA	90	10 03 07 2 204 037.000	MCCLENDON JOE
41	10 03 07 3 301 007.001	PHELPS MADISON LLC	91	10 03 07 2 204 033.000	CITY OF MONTGOMERY ALABAMA
42	10 03 07 3 301 008.000	BAILEY J PAUL	92	10 03 07 2 204 038.000	CITY OF MONTGOMERY ALABAMA
43	10 03 07 3 301 009.000	WAFFLE HOUSE INC	93	10 03 07 2 204 017.000	CITY OF MONTGOMERY ALABAMA
44	10 03 07 3 301 010.000	JOHNSON RICHARD S	94	10 03 07 2 204 018.000	CITY OF MONTGOMERY ALABAMA
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46	10 03 07 3 301 011.001	JOHNSON RICHARD S	96	10 03 07 2 203 003.000	ALABAMA POWER COMPANY
47	10 03 07 3 301 014.000	JOHNSON RICHARD S	97	10 03 07 2 007 014.000	CENTRAL OF GEORGIA RAILROAD
48	10 03 07 3 301 015.000	COMALA CREDIT UNION INC	98	10 03 07 2 006 001.001	SABEL FAMILY LIMITED PARTNERSHIP
49	10 03 07 3 301 016.000	CPD PROPERTIES LLC	99	11 01 12 1 000 006.000	SABEL LAND CO &
50	10 03 07 3 301 016.001	MAX FEDERAL CREDIT UNION			

LEGEND

- Site Boundary
- PCE Plume 100-foot Buffer
- Parcel Boundary
- Parcel Intersecting Plume and 100-ft Buffer
- DEA Owned Parcel Intersecting Plume and 100-ft Buffer
- Downtown Environmental Overlay (Dashed Options)
- Current Groundwater Well Drilling Ban Ordinance
- IC/EC Areas for Inspection
- Randomly Selected Properties for Inspection

Notes:
1. AG = Attorney General
2. RSA = Retirement Systems of Alabama

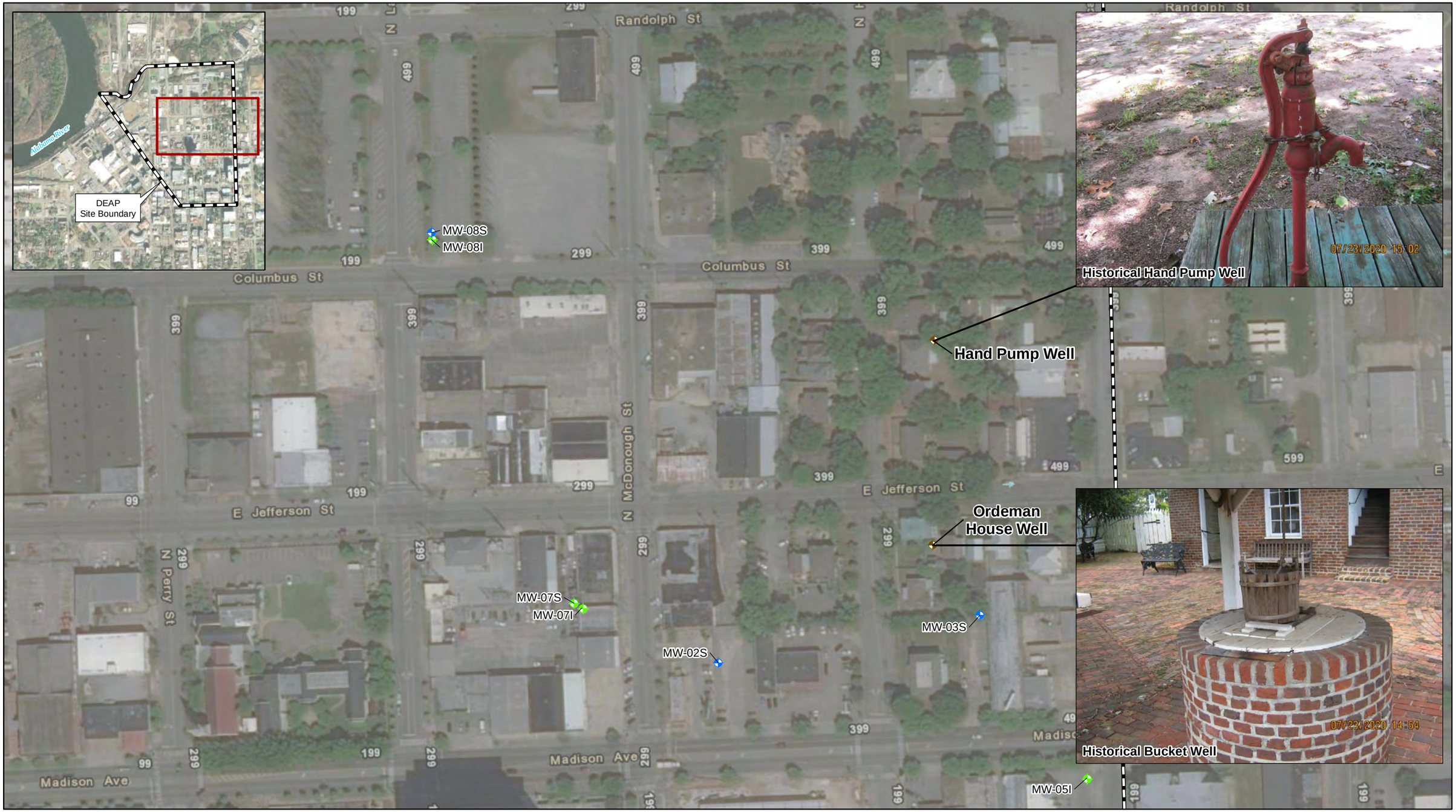
N

0 250 500
Feet

FIGURE 9
Parcels Inspected in 2020
2020 Remedial Action Progress Report
Downtown Environmental Assessment Project
Montgomery, AL

ch2m

\\dc1vs01\GISProj\M\MontgomeryDEAP\MapFiles\2020_RAP\Fig4_Parcels_Inspected_in_2020.mxd AESPEJO 1/4/2021



LEGEND

- Shallow Monitoring Well
- Intermediate Monitoring Well
- Historical Well
- Site Boundary

N

0 75 150

Feet

FIGURE 10
Historical Well Locations
2020 Remedial Action Progress Report
Downtown Environmental Assessment Project
Montgomery, AL

\\dc1vs01\GISProj\M\MontgomeryDEAP\MapFiles\2020_RAP\Fig5_Historical_Well_Locations.mxd AESPEJO 1/5/2021

Appendix A
De-Proposal Technical Memorandum (Text Only)

TECHNICAL MEMORANDUM

Recommendation to De-propose from the National Priorities List (NPL) – Downtown Environmental Assessment Project (formerly the Capital City Plume)

May 13, 2020

Introduction

With this Technical Memorandum (TM), the Downtown Environmental Alliance (DEA) is providing documentation to support the de-proposal of the Downtown Environmental Assessment Project (DEAP; formerly the Capital City Plume) from the NPL. The original proposal was published in the Federal Register on May 11, 2000 (30489-30495 Federal Register, Vol. 65, No. 92). This request is supported by the Alabama Department of Environmental Management (ADEM), which is overseeing the site cleanup pursuant to the final Settlement Agreement for Site Response, which was revised and signed in October 2019 (originally signed on September 30, 2015) by ADEM and the DEA. This settlement agreement, along with other past documents referenced in this letter, are included on CD as an attachment. The purpose of this TM is to provide the reader with a complete overview of the project and describe the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-equivalent process that was followed to support de-proposal of the DEAP.

Site History and Previous Remedial Action (Prior to DEA involvement; 1991-2011)

This section provides a brief description of the site history and remedial actions taken prior to the formation of the DEA. A more complete historical summary can be found in Section 2.1 of the final Technical Work Plan, which is included in Appendix A at the end of this TM.

- In 1991, tetrachloroethylene (PCE) was detected in former public water supply well PW-9W. The Montgomery Water Works and Sanitary Sewer Board of the City of Montgomery, Alabama (MWWSSB) closed the North Well Field (located north of the current plume footprint) wells in the early 1990s, eliminating the potential for consumption of potentially contaminated groundwater. The source of drinking water for the City of Montgomery (City) has since been supplied by surface water intakes from the Tallapoosa River (located several miles upstream of downtown Montgomery) or well fields southwest of Montgomery (located approximately 8 miles south of downtown Montgomery), and the western well field, which has been in existence for approximately 80 years. Based on groundwater flow and distance, these water sources are not within the plume nor threatened by the plume.

- PCE was also encountered during the construction of the Retirement Systems of Alabama (RSA) Energy Plant in 1993. An emergency removal action was conducted in 1993 by the contractors excavating at the RSA Energy Plant. The remedial action included the removal of contaminated soil and groundwater, and non-aqueous phase liquid. This action effectively eliminated the PCE source area at the RSA Energy Plant construction area (located one block east of the RSA Tower in downtown Montgomery) as supported by the significant decrease in PCE concentrations in Monitoring Well MW-1S (located adjacent to and downgradient of the RSA energy plant excavation) from greater than 607 ppb in 1993 to less than the MCL since 2010.

- In 1995, ADEM conducted a Preliminary Assessment of the soil and groundwater around the RSA Energy Plant. No specific sources of the PCE were identified; however, the report identified numerous historical drycleaners in the downtown area.

- In May 2000, the site was proposed by EPA for inclusion on the NPL because of the potential threat to the public water supply. This potential threat was based on the population potentially exposed to contaminated groundwater, based on EPA's Hazard Ranking System scoring of the site.

- Between 1999 and 2001, EPA contracted Black & Veatch to conduct a Remedial Investigation (RI) to evaluate the nature and extent of groundwater contamination because of the PCE discovered in downtown Montgomery groundwater. During this investigation, 16 permanent and 16 temporary wells were installed to monitor the vadose zone and the top and bottom of the uppermost aquifer, estimate hydraulic conductivity, and to evaluate the nature and extent of groundwater contamination. Sixty-six subsurface soil samples also were collected to characterize potential site source areas. The RI concluded that contaminants likely originated from multiple sources within the downtown Montgomery area and the groundwater exposure pathway to residents is incomplete.

- In October 2002, the City and EPA entered into an Administrative Order by Consent that called for the completion of the CERCLA activities associated with the project, including the completion of a Feasibility Study (FS), and selection of a final remedy for the project. In 2003, the City contracted Malcolm Pirnie to develop a FS for the project area. The FS evaluated potential remedial options. Institutional controls and groundwater monitoring were retained as remedial options for implementation.

- The City passed a groundwater ordinance on September 16, 2003 to prohibit well drilling in the downtown area. This action significantly reduces the potential for ingestion or dermal exposure pathways to groundwater for downtown employees and residents.

- In 2004, the Agency for Toxic Substances and Disease Registry (ATSDR) issued a Public Health Assessment Report for the site. ATSDR noted that because of the quick response by MWWSSB in removing the contaminated well from service and the dilution of any contaminants that may have been present due to blending in the Montgomery water supply system, the site represented "no apparent public health hazard."

- In September 2004, EPA drafted a Record of Decision (ROD) document for the Capital City Plume site. This draft ROD concluded that no CERCLA remedial action was necessary for the site and that monitoring would be conducted to verify that no unacceptable exposures to risks posed by the site would occur in the future. Also, a determination was made that no remedial action was necessary at the site due to previous actions conducted by the City and MWWSSB. The ROD was never finalized by EPA.

- In 2005 and 2006, the City developed a groundwater monitoring plan under EPA review. Using the available groundwater monitoring network (up to 14 wells), groundwater sampling was conducted in 2007, 2009, 2010, and 2011 by the City, U.S. Geological Survey (USGS), and EPA (2010 and 2011), in accordance with the conditions outlined in the draft ROD.

- In 2005 and 2011, the MWWSSB contracted a licensed well driller to decommission and abandon (i.e., permanently grout) the wells formerly associated with the North Well Field, thus completely eliminating the wells from future use. The MWWSSB retained Well PW-9W for future environmental monitoring purposes, until it was permanently abandoned in 2019.

- From 2008 to 2010, USGS and EPA conducted tree tissue, pore water, and groundwater surveys in the downtown Montgomery area as part of a technology assessment for the use of tree core data to assess groundwater quality. Chlorinated volatile organic compounds (VOCs) were detected in tree core samples collected from across the site, including four trees in the downgradient portion of the plume (three trees from near the Cypress Creek area and one tree near MW-12S). Detection of the chlorinated VOCs suggests phyto-uptake is occurring in the downgradient portion of the plume.
- In 2010, EPA and USGS sampled indoor air and collected soil vapor samples near the County Annex III and Attorney General (AG) buildings based on complaints of indoor air quality. Corrective measures were taken at both buildings to address the indoor air quality, including installation of a filtration system in the County Annex building and replacement of carpet in the subbasement of the AG building, which resolved the odor issues in these buildings. Neither of the indoor air issues at these two buildings were found to be related to the groundwater plume.
- In 2010, the City, in collaboration with EPA constructed a demonstration phytoremediation plot consisting of clonal cottonwood trees in the central area of the plume. This location was located within the footprint of the Capital City Plume and was intended to provide remediation of the PCE contaminated groundwater.

Proposed NPL Listing and Formation of the Downtown Environmental Alliance

In June 2012, the City developed a working group to complete the investigations needed to avoid final inclusion on the NPL. In November 2012, EPA sent a letter to the City of Montgomery requesting an Environmental Action Plan (EAP) to present the technical strategy for addressing the remaining environmental concerns related to potential contamination in the downtown portion of the City. The November 2012 letter also noted three main items of concern that should be addressed in such an EAP:

- Develop a strategy to evaluate the potential for soil vapor contamination within a 47-block area of downtown Montgomery.
- Further evaluate the presence of the soil vapor contamination previously identified in the vicinity of the County Annex III Building, at 101 South Lawrence Street.
- Further evaluate the need for additional environmental sampling in the vicinity of the current Alabama AG Building at 501 Dexter Avenue.

An EAP to address the issues identified in EPA's November 12, 2012 letter was submitted to EPA in February 2013. Following review, EPA identified additional technical issues in a response letter dated September 19, 2013. The three additional technical issues identified by the EPA were as follows:

1. Identify and delineate any contaminant source areas in order to evaluate the feasibility of eliminating or controlling ongoing impacts by soil vapor and groundwater at the site.
2. Evaluate the nature and extent of contaminated groundwater and surface water in Cypress Creek in support of the objectives to restore groundwater to beneficial use within a reasonable timeframe at the site.
3. Provide an assessment of the pathways and quantitative risks posed by the site, including potential exposure to contaminated groundwater and soil vapor linked to previously identified source areas.

The EAP was developed to address these concerns using both scientifically defensible methodologies and industry-accepted practices and testing methods. The City resubmitted a draft EAP to EPA in December 2013. The document was subsequently finalized in March 2014, and EPA concurred with it in May 2014.

Following acceptance of the EAP, the City facilitated the formation of a group of voluntary participants to respond to the environmental issues and concerns described in the November 2012 letter from EPA to the City. This group is known as the Downtown Environmental Alliance. The DEA consists of the following members:

- City of Montgomery–Facilitator
- Alabama Department of Education
- Alabama Department of Transportation
- Alabama Department of Public Safety
- The Advertiser Company
- County of Montgomery
- MWWSSB

On September 30, 2015, the DEA was formalized by the signing of the Site Participation Agreement by its members. Also, the regulatory management of the DEAP was formally deferred from EPA to ADEM oversight through the execution of a Memorandum of Understanding signed by EPA and ADEM. Also, on September 30, 2015, the DEA and ADEM signed the original version of the Settlement Agreement for Site Response, which established the regulatory steps and documents to complete the CERCLA-equivalent remedial process for de-proposal to be achieved.

Community Involvement and Outreach Plan

In November 2015, the DEA submitted its Capital City Plume Community Involvement and Outreach Plan (CIOP) to ADEM for review. The purpose of this CIOP was to serve as a guide for providing meaningful community involvement for efforts related to the Capital City Plume project. The CIOP also provided guidance for the formation of the Community Outreach Group (COG), which is a group of concerned citizens who live or work in the downtown area that provides external review and insight into the DEAP activities and documents. The DEA routinely provides the COG with updates on major milestones with the project. The CIOP also provided guidance for the DEAP's website, which contains updates on the status of the DEAP and final documents for the public to review. ADEM submitted its concurrence letter for the plan in February 2016.

Technical Work Plan

In May 2016, The DEA finalized the Technical Work Plan (TWP), which included a summary and evaluation of all known historical environmental sampling data (groundwater, surface water, soil, soil vapor, and indoor air) in the downtown area to identify the additional field work recommended to evaluate the DEAP. Additional proposed work included installation of an additional monitoring well, collection of groundwater samples, collection of soil vapor samples, a hydraulic study of Cypress Creek and evaluation of a private commercial well, all following typical CERCLA investigation approaches.

The TWP also included a site-wide Sampling and Analysis Plan (SAP) that established the sampling methodology, laboratory methods, and field documentation requirements for the above-mentioned field work. The work elements described in the TWP were later reported in the Supplemental Environmental Investigation Report.

Supplemental Environmental Investigation Report

From summer 2016 to winter 2017, the DEA conducted the field activities associated with the Supplemental Environmental Investigation (EI), which were prescribed in the TWP and SAP. The final Supplemental EI Report was submitted to ADEM in October 2017 and concurrence was received in March 2018. The objectives of the EI (which is equivalent to a CERCLA Remedial Investigation Report)

were to collect sufficient data to support the refinement of the conceptual site model (CSM), including the following:

- Assess the nature and extent of PCE in groundwater.
- Evaluate the potential for groundwater to impact surface water in Cypress Creek.
- Evaluate the vapor intrusion potential at the County Annex III and Attorney General buildings.
- Identify concentrations of soil vapor at locations where shallow groundwater concentrations exceeded EPA residential vapor intrusion screening levels (VISLs).
- Provide sufficient data to evaluate potential exposure risk.

Based on the results of the EI phase of the project, PCE and trichloroethylene (TCE) were the only chemicals in groundwater that exceeded the lower of the maximum contaminant levels (MCLs) and EPA Regional Screening Levels (RSLs). The extent of the PCE in groundwater was delineated (horizontally and vertically) based on PCE concentrations exceeding the MCL of 5 micrograms per liter. TCE did not exceed the MCL, but was present in concentrations exceeding the RSL in isolated areas within the site. The lateral extent of PCE in groundwater ends near Cypress Creek, where the influence of the Alabama River acts as a hydraulic barrier to impede further lateral migration.

The preliminary screening evaluation resulted in the need to perform a risk assessment and alternatives analysis for the shallow groundwater and shallow soil vapor in accordance with ADEM and EPA guidance.

Risk Assessment/Alternatives Analysis Report

Based on the recommendations of the preliminary risk evaluation in the final Supplemental EI Report, the DEA prepared a combined risk assessment and alternatives analysis (i.e., equivalent of a Risk Assessment and Feasibility Study) document. The final Risk Assessment/Alternatives Analysis (RA/AA) Report was submitted to ADEM in February 2019, and ADEM concurrence was received in March 2019. The Human Health Risk Assessment (HHRA) was performed using Alabama Risk-Based Corrective Action (ARBCA) Guidance (which provides an approach and risk estimates similar to a Superfund HHRA under CERCLA) and consisted of the 4-step process identified for a Superfund HHRA.

- Step 1 - Screened maximum detected site concentrations in groundwater and soil vapor with conservative screening levels (RSLs and VISLs based on a target risk of 1 × 10-6 and target hazard quotient of 0.1) to identify chemicals of concern (COCs)[1].
- Step 2 - Developed a site-specific conceptual exposure model, identifying potential current/future receptors and potential exposure scenarios, and estimated intakes for potentially complete exposure pathways using EPA's standard exposure equations and exposure factor values.
- Step 3 - Identified toxicity values from EPA's hierarchy of toxicity value sources.
- Step 4 - Calculated risk estimates for COCs and compared risk estimates to acceptable risk levels (for ADEM, an excess lifetime cancer risk of 1 × 10-5 and hazard index of 1).

In addition, a Screening Level Ecological Risk Assessment was prepared.

The HHRA indicates that soil vapor concentrations exceed EPA's residential and/or commercial VISLs at only three locations, and that soil vapor at two of the locations was not related to the groundwater plume. Currently, there are no residences in the areas of the exceedances. The only area of a

[1] The term "chemical of concern" (COC) is used in this step in ARBCA, rather than the Superfund HHRA term "chemical of potential concern" (COPC).

commercial exceedance (unrelated to the groundwater plume) is an existing parking lot/city right-of-way; thus, there are no current receptors. Soil vapor samples collected at the building nearest the area of commercial exceedance were within acceptable limits.

The Alternatives Analysis followed the CERCLA-like decision-making process, where potential remedial alternatives were screened against the two CERCLA threshold criteria and the five balancing criteria. While several active remedial alternatives were considered (i.e., pump-and-treat, in situ chemical reduction, in situ chemical oxidation, air sparge/soil vapor extraction, and/or enhanced bioremediation), these alternatives were deemed not feasible based on their ability to be implemented, technical effectiveness, and safety considerations. Also, based on the fact that considerable active remediation has already occurred at the site (i.e., North Well Field Abandonment, 1993 Soil source Removal during RSA construction, phytoremediation project, and abandonment of privately-owned bus washing well), the Alternatives Analysis concluded that further active remediation was not warranted for the DEAP.

Four potential remedial alternatives were carried forward to the final evaluation:

- Alternative 1 - No Action
- Alternative 2 - Institutional Controls (ICs) with Five-Year Reviews (FYRs)
- Alternative 3 - ICs with FYRs and Monitoring
- Alternative 4 - ICs with FYRs and Monitored Natural Attenuation (MNA)

Based on the review of this evaluation, it was determined that Alternative 1 (No Action) would not meet the threshold criteria of being protective of human health and the environment or compliant with applicable, relevant, and appropriate requirements (ARARs). Of the three remaining alternatives, it was concluded that no additional protectiveness is gained from the increased costs associated with Alternative 4 (which includes MNA; also, the aerobic state of the aquifer will not support MNA), and although Alternative 2 (ICs with FYRs) is less expensive, it does not provide the monitoring data required to support the FYR evaluation and address when the remedy can be terminated. Areas of remaining potential risk can be managed using ICs with monitoring. Therefore, Alternative 3 (ICs with FYRs and Monitoring) was the recommended alternative.

Institutional Controls Plan

After ADEM concurrence was received for the RA/AA Report on March 8, 2019, the DEA prepared an Institutional Controls Plan (ICP), which is equivalent to a Proposed Plan/Record of Decision. The Final ICP was submitted to ADEM in July 2019. ADEM concurrence with the ICP was received in August 2019 and a final Determination Letter was received in September 2019, once the 45-day public comment period was completed with no public comments received. The purpose of the ICP was to provide the planning-level details of the ICs that would be required for the DEAP. The ICP describes the following activities to be completed for the remedy to be considered completely implemented:

- Install one additional monitoring well located along the western edge of the plume footprint.
- Amend the City's well drilling ordinance to (1) prohibit groundwater use within the downtown area, (2) prohibit first-floor residential use for one block where soil vapor is a potential future concern, and (3) require property owners to follow the International Building Code regarding the use of vapor barriers for new construction.
- Implement environmental covenants on the City-owned property in areas where soil vapor is a potential future concern.
- Provide and encourage the use of environmental covenants to downtown property owners.

- Send IC Notification Letters to downtown property owners on an annual basis to describe the restrictions for groundwater use, the use of vapor barriers, the availability of environmental covenants, and the restriction of first-floor residential use (where applicable).
- Conduct random, annual inspections of downtown properties and interviews with property owners to ensure the ICs are being implemented and maintained in accordance with the ICP.
- Conduct annual groundwater monitoring at seven effectiveness monitoring wells.
- Provide annual Remedial Action Progress Reports to ADEM.

Remedial Action Report

The Remedial Action Report (RAR), the final document required by the Settlement Agreement for Site Response for de-proposal of the DEAP, was submitted by the DEA to ADEM in November 2019 and concurrence was received by ADEM in November 2019. The purpose of the RAR was to document that the items described in the ICP were completed or ready to implement. The RAR was developed in general accordance with the Remedial Action Report: Documentation for Operable Unit Completion (OSWER 9355.0-39FS; EPA, June 1992). The RAR was submitted to EPA Region 4 in November 2019 as part of ADEM's original de-proposal package for the DEAP.

Remedial Actions at the DEA Site

Several remedial actions have been performed over the history of the Capital City Plume site:

- Soil excavation of the source area at the RSA Energy Plant in 1993
- Permanent abandonment of all public supply wells associated with the North Well Field, including the final public water supply well 9W, which was the driver for the initial listing of the site
- Installation of the phytoremediation plot in 2010 and ongoing maintenance of other trees in the downtown area
- Permanent closure of the last remaining private well (the Capital Trailways bus washing well) in 2019

Based on discussions during the March 10, 2020 site visit with EPA and ADEM, the DEA has reconsidered the active remedial alternatives that were considered in the AA portion of the RA/AA Report (i.e., pump-and-treat, in situ chemical reduction, in situ chemical oxidation, air sparge/soil vapor extraction, and/or enhanced bioremediation). The in situ chemical reduction, was not considered because the ability to sustain a reductive zone in the highly aerobic aquifer is unlikely. The use of air sparge was not considered further as the physical act of stripping PCE from the aquifer would increase the likelihood of PCE vapor migration (and potentially increase the likelihood of a complete vapor intrusion pathway) for the downtown area. Two remaining active remedial alternatives (pump- and-treat and expanded phytoremediation) were evaluated after discussions with EPA and ADEM for further consideration. In order to evaluate these two remedial options, the DEA reviewed applicable information for the two alternatives, and it was determined that the cost associated with a potential pump-and-treat option would be significantly greater than the cost associated with an expanded phytoremediation option. It was also considered that the pump-and-treat option would involve pumping contaminated groundwater to the surface, thus creating a potential pathway for exposure that does not currently exist. Furthermore, based on general knowledge of the hydrology of the area and these remediation alternatives, it is believed that neither pump-and-treat nor expanded phytoremediation technology are expected to speed up the remediation to less than MCLs within a substantially shorter timeframe.

Conclusion

The final selected remedy for the DEAP is ICs with groundwater monitoring (which is consistent with the original 2004 draft ROD prepared by EPA). Given the restrictions on groundwater use and that downtown groundwater is not needed for potable use, the DEA and ADEM understand the length of time it will take for restoration of the aquifer for drinking water standards. Additionally, there are no other foreseeable beneficial uses for this aquifer at this time. The DEAP will continue to be managed by the DEA under the regulatory authority of the Alabama Department of Environmental Management. ADEM will continue to be the lead agency responsible for regulatory oversight of the site. ADEM believes that Superfund involvement at this site is not warranted and in a letter to EPA dated November 13, 2019, requested that the site be de-proposed from the proposed NPL.

Appendix B
Data Quality Evaluation and Analytical Laboratory Report

APPENDIX B

Data Quality Evaluation

Quality Assurance/Quality Control and Data Validation

The purpose of the data quality evaluation (DQE) process is to assess the effect of the overall analytical process on the usability of the data. The two major categories of data evaluation are laboratory performance and matrix interferences. The evaluation of laboratory performance is a check for compliance with the method requirements; either the laboratory did, or did not, analyze the samples within the limits of the analytical method. The evaluation of matrix interferences is more subtle and involves the analysis of several areas of results including surrogate spike recoveries, matrix spike recoveries, and duplicate sample results.

Introduction

Groundwater samples were collected for the Downtown Environmental Assessment Project in Montgomery, Alabama on April 28, 2020 and submitted to Pace Analytical in Mount Juliet, Tennessee for volatile organic compounds (VOC) analysis by SW-846 Method 8260B. One VOC, tetrachloroethene (PCE) was requested and reported for these samples.

The numbers and types of samples collected are listed in Table B-1. Field quality control (QC) samples collected included a field duplicate (FD), a matrix spike/matrix spike duplicate (MS/MSD), a field blank (FB), an equipment rinsate blank (EB), and a trip blank (TB).

TABLE B-1 Analyses Totals by Method
DEAP Montgomery, Alabama

Analytical Method	Matrix	N	MS/ MSD	FD	EB	AB	TB	Total
VOC/SW8260B	Groundwater	7	1	1	1	1	1	13
VOC/SW8260B	IDW	1	--	--	--	--	--	1

Notes:
VOC = Volatile Organic Compounds
SW = SW-846 Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, February 2007
N = native sample
MS/MSD = matrix spike/matrix spike duplicate
FD = field duplicate
EB = equipment blank
AB = ambient/field blank
TB = Trip blank (VOC only)

Before the analytical results were released by the laboratory, both the sample and QC data were carefully reviewed to verify sample identity, instrument calibration, detection limits, dilution factors, numerical computations, accuracy of transcriptions, and chemical interpretations. Additionally, the QC data were reduced and the resulting data were reviewed to ascertain whether they were within the laboratory-defined limits for accuracy and precision.

The hardcopy data packages were reviewed by the project chemist using the process outlined in the U.S. Environmental Protection Agency (EPA) guidance document, National Functional Guidelines for Organic

Data Review (EPA, 2017). EPA Level III deliverables were provided by the laboratory for this project. The areas of review included (when applicable to the method) holding time compliance, blank results, precision and accuracy, surrogate recoveries, initial and continuing calibrations, internal standards. Data review was completed for each of the laboratory reports and any non-conformance was documented. This data review and validation process is independent of the laboratory's checks and focuses on the usability of the data to support the project data interpretation and decision-making processes.

Data that were not within the acceptance limits were appended with a qualifying flag, which consists of a single or double-letter abbreviation that reflects a problem with the data. The following validation flags were applied as necessary:

- **U –** Undetected. The analyte/compound was analyzed for, but not detected above the method detection limit (MDL).
- **UJ –** Undetected, detection limit estimated. The analyte/compound was analyzed for and qualified as not detected. The detection limit is estimated due to a quality assurance (QA)/QC exceedance.
- **J –** Estimated. The analyte was positively identified above the method detection limit or qualified due to a QA/QC exceedance; the associated numerical value is considered an estimated concentration of the analyte in the sample.
- **R –** Rejected. The data are unusable, the analyte/compound may or may not be present.
- **B** – Estimated. The result was qualified to indicate possible contamination due to the presence of the analyte/compound in an associated laboratory and/or FB.

Once the data review and validation process was completed, the entire data set was reviewed for chemical compound frequencies of detection, dilution factors that might affect data usability, and patterns of target compound distribution. The data set also was evaluated to identify potential data limitations, uncertainties, or both, in the analytical results.

Holding Times

The VOC holding times for all samples were met in accordance with SW-846 requirements.

Potential Field Sampling and Laboratory Contamination

During the April 2020 sampling event, four types of blank samples were used to monitor potential contamination introduced during field sampling, sample handling, and shipping activities, as well as sample preparation and analysis in the laboratory.

- **Trip Blank (TB):** A sample of ASTM Type II water that is prepared in the laboratory before the sampling event. The water is stored in VOC sample containers and is not opened in the field, and travels back to the laboratory with the other samples for VOC analysis. This blank is used to monitor the potential for sample contamination during the sample container trip. One trip blank should be included in each sample cooler that contains samples for VOC analysis. One trip blank sample set was submitted to Pace Analytical for tetrachloroethene analysis by SW-846 Method 8260B.
- **Equipment Rinsate Blank (EB)**: A sample of the target-free water used for the final rinse during the equipment decontamination process. This blank sample is collected by rinsing the sampling equipment after decontamination and is analyzed for the same analytical parameters as the corresponding samples. This blank is used to monitor potential contamination caused by incomplete equipment decontamination. One equipment rinsate blank should be collected per sampling event, per type of sampling equipment. One equipment rinsate blank was submitted to Pace Analytical for tetrachloroethene analysis by SW-846 Method 8260B.

- **Field Blank or Ambient Blank (FB/AB)**: The FB/AB is an aliquot of the source water used for equipment decontamination. This blank monitors contamination that may be introduced from the water used for decontamination. One FB/AB should be collected from each source of decontamination water and be analyzed for the same parameters as the associated samples. One AB was submitted to Pace Analytical for tetrachloroethene analysis by SW-846 Method 8260B.
- **Laboratory Method Blank or Method Blank (MB):** A MB is ASTM Type II water that is treated as a sample in that it undergoes the same analytical process as the corresponding field samples. The MBs are used to monitor laboratory performance and contamination introduced during the analytical procedure. One MB was prepared and analyzed for every twenty samples, or per analytical batch, whichever was more frequent.

Field and laboratory blanks for the April groundwater sampling events were reported as not detected for tetrachloroethene.

General Data Qualifiers

As required by the EPA protocols, all compounds that were qualitatively identified at concentrations below their respective RLs but above the MDLs are appended with “J” qualifiers on the data summary tables to indicate that they are quantitative estimates. For this sample set, tetrachloroethene results were reported as not detected or above the RL, therefore no results were “J” qualified as estimated concentrations between the MDL and RL. Several tetrachloroethene results were “J” qualified due to QA/QC exceedances as noted below.

Instrument Calibration

All initial and continuing calibration results were reported within the method criteria for all target compounds.

Matrix Effects

Surrogate Spike Recovery and Internal Standard Response

Surrogate spike compounds were added to every sample, including field and laboratory blanks as well as field environmental samples and analyzed for VOCs. Surrogate spikes consist of organic compounds that are similar to the method targets in chemical composition and behavior in the analytical process, but that are not normally found in environmental samples.

Surrogate spike recoveries were used to monitor both laboratory performance and matrix interferences. Surrogate spike recoveries from field and laboratory blanks were used to evaluate laboratory performance because the blanks should represent an "ideal" sample matrix. Surrogate spike recoveries for the field samples were used to evaluate the potential for matrix interferences. According to the Functional Guidelines, data are qualified as estimated values when one or more VOC surrogate recoveries are outside of method acceptance limits.

Internal standard calibration involves the comparison of the instrument responses from the target compounds in the sample to the responses of specific standards added to the sample or sample extract prior to injection.

All surrogate recoveries and internal standards associated with the target compound for this project were within acceptance criteria.

Matrix Spike/Matrix Spike Duplicate Precision and Accuracy

The MS and MSD samples are aliquots of a native sample spiked with a known concentration of target compound(s) before sample preparation and analysis. MS/MSDs are used to document the bias and precision of a method in a given sample matrix. For the MS/MSD measurement, three aliquots of a single sample are analyzed; one native sample and two samples spiked with target compound(s). Matrix accuracy is evaluated from the spike recoveries, while precision is evaluated from a comparison of the concentrations of the MS and MSD.

MS/MSD evaluation is in conjunction with surrogate, internal standard, and laboratory control sample/laboratory control sample duplicate (LCS/LCSD) results.

Groundwater monitoring well MW-01S was submitted to the laboratory for MS/MSD analysis during the April 2020 sampling event. High percent recoveries were reported for tetrachloroethene in the MW-01S MS/MSD at 206% and 197% (with criteria range of 10 to 160%) and one LCS at 132% (with criteria range of 72 to 132%). Associated samples, MW-14S, MW-01S, MW-03S, MW-02S, MW-08S, and MW-12S were "J" qualified for tetrachloroethene to indicate the reported concentrations may be biased (high) due to the accuracy exceedances.

One FD sample was collected and analyzed for tetrachloroethene to evaluate the precision of field sampling and the variability of the sample data. Groundwater monitoring well MW-13S was selected for FD analysis during the April 2020 sampling event. The native sample and FD sample results were compared and relative percent difference (RPD) precision criteria were met.

Precision, Accuracy, Representativeness, Completeness, and Comparability (PARCCs)

Precision–is defined as the agreement between duplicate results, and was estimated by comparing MS/MSD and native/FD sample results. MS/MSD, LCS/LCSD, and FD precision was reviewed and precision was exceeded for one LCS/LCSD at 22.1 relative percent difference (with criteria range of 0-20%) for to tetrachloroethene. Associated sample, IDW-01 was "J" qualified to indicate an estimated concentration due to the precision exceedance.

Accuracy– is a measure of the agreement between an experimental determination and the true value of the parameter measured. Accuracy of the data was verified through the review of surrogate, LCS/LCSD and MS/MSD results. Surrogate and MS/MSD recoveries provide a measure of the matrix effects on the analytical accuracy. The LCS/LCSD results demonstrate accuracy and precision of the method and the laboratory's ability to meet the method criteria. LCS/LCSD and MS/MSD recoveries were reported above acceptance criteria for tetrachloroethene. Associated sample results were "J" qualified to indicate estimated concentrations due to accuracy exceedances.

Representativeness–This criterion is a qualitative measure of the degree to which sample data accurately and precisely represent a characteristic environmental condition. Representativeness is a subjective parameter and is used to evaluate the effectiveness of the sampling plan design. Representativeness was demonstrated by providing full descriptions in the project scoping documents of the sampling techniques and the rationale used for selecting sampling locations.

Completeness–is defined as the percentage of measurements that are judged to be valid compared to the total number of measurements made. The only data rejected during this evaluation were those samples that required multiple dilutions due to high native concentrations, because there can only be a single numerical result for each compound reported. All analyses were performed within holding time

requirements and within the QA/QC criteria with the exception of the exceedances noted above, resulting in 100% usable data for this sampling event.

Comparability–is another qualitative measure designed to express the confidence with which one data set may be compared to another. Factors that affect comparability are sample collection and handling techniques, sample matrix type, and analytical method. Comparability is limited by the other precision, accuracy, representativeness, completeness, and comparability (PARCC) parameters because data sets can be compared with confidence only when precision and accuracy are known. Data from this investigation are comparable with other data collected at the site because only EPA methods were used to analyze the samples and EPA Level III QC data are available to support the quality of the data.

Summary and Conclusions

The conclusions of the DQE process include the following:

- The laboratory analyzed the samples for tetrachloroethene according to the EPA methods as requested by the project and demonstrated by the data deliverables provided.
- Field and laboratory blanks analyzed for this sampling event were reported as not detected for tetrachloroethene.
- Groundwater monitoring well MW-01S was submitted to the laboratory for MS/MSD analysis. Tetrachloroethene precision and accuracy criteria were reported above criteria for the MS/MSD sample along with two LCS/LCSD sets. Associated sample results were "J" qualified to indicate estimated concentrations due to the precision and accuracy exceedances.
- Groundwater monitoring well MW-13S was selected for FD analysis with precision criteria met for tetrachloroethene.
- The overall project objectives or PARCCs were met, and the data can be used in the project decision-making process as qualified by the DQE process.

Laboratory Report

ANALYTICAL REPORT

May 07, 2020

Jacobs - Montgomery, AL

Sample Delivery Group:	L1213457
Samples Received:	04/29/2020
Project Number:	TO 148014442
Description:	Montgomery DEAP
Site:	D3358600.A.PN.EV.01.GM
Report To:	Ms. Kaye Walker 4121 Carmichael Rd, Suite 400 Montgomery, AL 36106

Entire Report Reviewed By:

Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

TABLE OF CONTENTS

MW-14S-0420 L1213457-01 GW

Collected by	Collected date/time	Received date/time
	04/28/20 09:26	04/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1469102	1	05/01/20 11:41	05/01/20 11:41	JCP	Mt. Juliet, TN

MW-01S-0420 L1213457-02 GW

Collected by	Collected date/time	Received date/time
	04/28/20 11:34	04/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1469102	1	05/01/20 12:01	05/01/20 12:01	JCP	Mt. Juliet, TN

MW-03S-0420 L1213457-03 GW

Collected by	Collected date/time	Received date/time
	04/28/20 12:58	04/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1469102	1	05/01/20 12:22	05/01/20 12:22	JCP	Mt. Juliet, TN

MW-02S-0420 L1213457-04 GW

Collected by	Collected date/time	Received date/time
	04/28/20 13:37	04/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1469102	1	05/01/20 12:43	05/01/20 12:43	JCP	Mt. Juliet, TN

MW-08S-0420 L1213457-05 GW

Collected by	Collected date/time	Received date/time
	04/28/20 14:30	04/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1469102	1	05/01/20 13:03	05/01/20 13:03	JCP	Mt. Juliet, TN

MW-12S-0420 L1213457-06 GW

Collected by	Collected date/time	Received date/time
	04/28/20 15:11	04/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1469102	1	05/01/20 13:24	05/01/20 13:24	JCP	Mt. Juliet, TN

MW-13S-0420 L1213457-07 GW

Collected by	Collected date/time	Received date/time
	04/28/20 15:52	04/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1471464	10	05/07/20 00:41	05/07/20 00:41	JHH	Mt. Juliet, TN

MW-FD01-0420 L1213457-08 GW

Collected by	Collected date/time	Received date/time
	04/28/20 15:53	04/29/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1470899	5	05/05/20 20:49	05/05/20 20:49	JHH	Mt. Juliet, TN

EB01-0420 L1213457-09 GW

			Collected by	Collected date/time	Received date/time	
				04/28/20 16:05	04/29/20 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1469294	1	05/01/20 12:17	05/01/20 12:17	JHH	Mt. Juliet, TN

AB01-0420 L1213457-10 GW

			Collected by	Collected date/time	Received date/time	
				04/28/20 16:15	04/29/20 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1469294	1	05/01/20 15:32	05/01/20 15:32	JHH	Mt. Juliet, TN

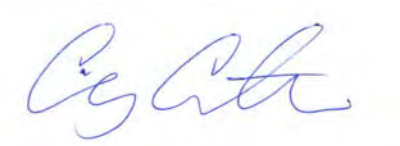
IDW-01-0420 L1213457-11 Waste

			Collected by	Collected date/time	Received date/time	
				04/28/20 17:00	04/29/20 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1470357	1	05/04/20 14:35	05/04/20 14:35	CGD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1470562	1	05/05/20 13:28	05/05/20 13:28	BMB	Mt. Juliet, TN

TB01-0420 L1213457-12 GW

			Collected by	Collected date/time	Received date/time	
				04/28/20 08:30	04/29/20 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1469294	1	05/01/20 12:37	05/01/20 12:37	JHH	Mt. Juliet, TN

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



Craig Cothron
Project Manager

Report Revision History

Level II Report - Version 1: 05/07/20 13:00

8260B Volatile Organic Compounds (GC/MS)

2A-OR

SURROGATE RECOVERY

Analytical Method: 8260B **SDG:** L1213457
Matrix: GW

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 % Rec.	DMC-2 % Rec.	DMC-3 % Rec.	TOT Out
MW-14S-0420	L1213457-01	VOCMS33	0430_70	110	107	104	0
MW-01S-0420	L1213457-02	VOCMS33	0430_71	112	105	105	0
MW-03S-0420	L1213457-03	VOCMS33	0430_72	111	108	104	0
MW-02S-0420	L1213457-04	VOCMS33	0430_73	109	107	105	0
MW-08S-0420	L1213457-05	VOCMS33	0430_74	111	106	106	0
MW-12S-0420	L1213457-06	VOCMS33	0430_75	109	106	104	0
MW-13S-0420	L1213457-07	VOCMS16	0506_40	111	97.8	98.1	0
MW-FD01-0420	L1213457-08	VOCMS38	0505_31	106	100	118	0
EB01-0420	L1213457-09	VOCMS23	0501_06	110	93.6	125	0
AB01-0420	L1213457-10	VOCMS23	0501_16	106	93.7	124	0
TB01-0420	L1213457-12	VOCMS23	0501_07	104	94.2	121	0
MS	R3525155-3	VOCMS33	0430_77	108	108	103	0
MSD	R3525155-4	VOCMS33	0430_78	110	112	102	0
BLANK	R3525491-3	VOCMS16	0506_34	109	96.3	100	0
BLANK	R3524833-2	VOCMS23	0501_05	105	96.6	124	0
BLANK	R3525155-2	VOCMS33	0430_56	111	111	102	0
BLANK	R3525176-2	VOCMS38	0505_27A	106	102	119	0
LCS	R3525491-1	VOCMS16	0506_31LCSA	105	86.6	95.5	0
LCS	R3524833-1	VOCMS23	0501_03	105	101	117	0
LCS	R3525155-1	VOCMS33	0430_54	110	109	99.4	0
LCS	R3525176-1	VOCMS38	0505_25A	105	104	120	0
LCSD	R3525491-2	VOCMS16	0506_32A	107	88.7	97.5	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	Toluene-d8	80.0 - 120
DMC-2	4-Bromofluorobenzene	77.0 - 126
DMC-3	1,2-Dichloroethane-d4	70.0 - 130

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

2A-OR

SURROGATE RECOVERY

Analytical Method: 8260B **SDG:** L1213457
Matrix: Waste

Sample ID	Lab Sample ID	Instrument	File ID	DMC-1 *% Rec.*	DMC-2 *% Rec.*	DMC-3 *% Rec.*	TOT Out
IDW-01-0420	L1213457-11	VOCMS30	0505_12	101	85.8	119	0
MS	R3524791-4	VOCMS30	0505_13	97.9	85.9	115	0
MS	R3524791-6	VOCMS30	0505_14	97.6	91.2	110	0
MSD	R3524791-7	VOCMS30	0505_15	100	90.3	107	0
BLANK	R3524791-3	VOCMS30	0505_07	97.8	88.4	121	0
LCS	R3524791-1	VOCMS30	0505_03	97.0	88.8	109	0
LCSD	R3524791-2	VOCMS30	0505_04	96.8	90.2	109	0

Parm Abbreviation	Parameter	QC LIMITS
DMC-1	Toluene-d8	80.0 - 120
DMC-2	4-Bromofluorobenzene	77.0 - 126
DMC-3	1,2-Dichloroethane-d4	70.0 - 130

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3A-OR

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1213457-11

SAMPLE NO.: R3524791-4

MS Sample / File ID:	R3524791-4 / 0505_13	**SDG:**	L1213457
MSD Sample / File ID:	_____	**Analytical Batch:**	WG1470562
OS Sample / File ID:	L1213457-11 / 0505_12	**Matrix:**	Waste
Instrument ID:	VOCMS30		
Analytical Method:	8260B		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*		*%*	*%*		*%*	*%*	*%*
Tetrachloroethene	0.250	0.0877	0.279		76.5		1	10.0 - 160		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3A-OR

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1213457-11

SAMPLE NO.:
R3524791-6
R3524791-7

MS Sample / File ID:	R3524791-6 / 0505_14	**SDG:**	L1213457
MSD Sample / File ID:	R3524791-7 / 0505_15	**Analytical Batch:**	WG1470562
OS Sample / File ID:	L1214248-06 / 0505_11	**Matrix:**	Waste
Instrument ID:	VOCMS30		
Analytical Method:	8260B		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Tetrachloroethene	0.250	ND	0.254	0.220	102	88.0	1	10.0 - 160	14.3	27

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3A-OR

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

L1213457-01,02,03,04,05,06

SAMPLE NO.:
R3525155-3
R3525155-4

MS Sample / File ID:	R3525155-3 / 0430_77	**SDG:**	L1213457
MSD Sample / File ID:	R3525155-4 / 0430_78	**Analytical Batch:**	WG1469102
OS Sample / File ID:	L1213457-02 / 0430_71	**Matrix:**	GW
Instrument ID:	VOCMS33		
Analytical Method:	8260B		

Analyte	Spike Amount	OS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*	*mg/l*	*%*	*%*		*%*	*%*	*%*
Tetrachloroethene	0.00500	U	0.0103	0.00987	206*	197*	1	10.0 - 160	4.26	27

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1213457-11

SAMPLE NO.:
R3524791-1
R3524791-2

LCS Sample / File ID:	R3524791-1 / 0505_03	**SDG:**	L1213457
LCSD Sample / File ID:	R3524791-2 / 0505_04	**Analytical Batch:**	WG1470562
Instrument ID:	VOCMS30	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	Waste

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*	*%*	*%*	*%*	*%*	*%*
Tetrachloroethene	0.250	0.306	0.245	122	98.0	72.0 - 132	22.1*	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1213457-09,10,12

SAMPLE NO.:
R3524833-1

LCS Sample / File ID:	R3524833-1 / 0501_03	**SDG:**	L1213457
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1469294
Instrument ID:	VOCMS23	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Tetrachloroethene	0.00500	0.00439		87.8		72.0 - 132		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

L1213457-01,02,03,04,05,06

SAMPLE NO.:
R3525155-1

LCS Sample / File ID:	R3525155-1 / 0430_54	**SDG:**	L1213457
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1469102
Instrument ID:	VOCMS33	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Tetrachloroethene	0.00500	0.00688		138*		72.0 - 132		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY
L1213457-08

SAMPLE NO.:
R3525176-1

LCS Sample / File ID:	R3525176-1 / 0505_25A	**SDG:**	L1213457
LCSD Sample / File ID:	_____	**Analytical Batch:**	WG1470899
Instrument ID:	VOCMS38	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*		*%*	*%*	*%*	*%*	*%*
Tetrachloroethene	0.00500	0.00544		109		72.0 - 132		

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

3B-OR

LABORATORY CONTROL SAMPLE
LABORATORY CONTROL SAMPLE DUPLICATE
RECOVERY

L1213457-07

SAMPLE NO.:
R3525491-1
R3525491-2

LCS Sample / File ID:	R3525491-1 / 0506_31LCSA	**SDG:**	L1213457
LCSD Sample / File ID:	R3525491-2 / 0506_32A	**Analytical Batch:**	WG1471464
Instrument ID:	VOCMS16	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	RPD	RPD Limit
	mg/l	*mg/l*	*mg/l*	*%*	*%*	*%*	*%*	*%*
Tetrachloroethene	0.00500	0.00547	0.00540	109	108	72.0 - 132	1.29	20

*: Value outside the established quality control limits.

D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

4A-OR

METHOD BLANK

SAMPLE NO.:
R3525491-3

Lab Sample ID:	R3525491-3	**SDG:**	L1213457
Lab File ID:	0506_34	**Preparation Date/Time:**	05/06/20 22:26
Instrument ID:	VOCMS16	**Analysis Date/Time:**	05/06/20 22:26
Analytical Batch:	WG1471464	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3525491-1	VOCMS16	0506_31LCSA	05/06/20 21:25
LCSD	R3525491-2	VOCMS16	0506_32A	05/06/20 21:45
MW-13S-0420	L1213457-07	VOCMS16	0506_40	05/07/20 00:41

4A-OR

METHOD BLANK

SAMPLE NO.:
R3524833-2

Lab Sample ID:	R3524833-2	**SDG:**	L1213457
Lab File ID:	0501_05	**Preparation Date/Time:**	05/01/20 11:32
Instrument ID:	VOCMS23	**Analysis Date/Time:**	05/01/20 11:32
Analytical Batch:	WG1469294	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3524833-1	VOCMS23	0501_03	05/01/20 10:53
EB01-0420	L1213457-09	VOCMS23	0501_06	05/01/20 12:17
TB01-0420	L1213457-12	VOCMS23	0501_07	05/01/20 12:37
AB01-0420	L1213457-10	VOCMS23	0501_16	05/01/20 15:32

4A-OR

METHOD BLANK

SAMPLE NO.:
R3524791-3

Lab Sample ID:	R3524791-3	**SDG:**	L1213457
Lab File ID:	0505_07	**Preparation Date/Time:**	05/05/20 11:37
Instrument ID:	VOCMS30	**Analysis Date/Time:**	05/05/20 11:37
Analytical Batch:	WG1470562	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	Waste

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3524791-1	VOCMS30	0505_03	05/05/20 09:50
LCSD	R3524791-2	VOCMS30	0505_04	05/05/20 10:12
OS	L1214248-06	VOCMS30	0505_11	05/05/20 13:06
IDW-01-0420	L1213457-11	VOCMS30	0505_12	05/05/20 13:28
IDW-01-0420	L1213457-11	VOCMS30	0505_12	05/05/20 13:28
MS	R3524791-4	VOCMS30	0505_13	05/05/20 13:50
MS	R3524791-6	VOCMS30	0505_14	05/05/20 14:12
MSD	R3524791-7	VOCMS30	0505_15	05/05/20 14:34

4A-OR

METHOD BLANK

SAMPLE NO.:
R3525155-2

Lab Sample ID:	R3525155-2	**SDG:**	L1213457
Lab File ID:	0430_56	**Preparation Date/Time:**	05/01/20 06:27
Instrument ID:	VOCMS33	**Analysis Date/Time:**	05/01/20 06:27
Analytical Batch:	WG1469102	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3525155-1	VOCMS33	0430_54	05/01/20 05:45
MW-14S-0420	L1213457-01	VOCMS33	0430_70	05/01/20 11:41
MW-01S-0420	L1213457-02	VOCMS33	0430_71	05/01/20 12:01
MW-01S-0420	L1213457-02	VOCMS33	0430_71	05/01/20 12:01
MW-03S-0420	L1213457-03	VOCMS33	0430_72	05/01/20 12:22
MW-02S-0420	L1213457-04	VOCMS33	0430_73	05/01/20 12:43
MW-08S-0420	L1213457-05	VOCMS33	0430_74	05/01/20 13:03
MW-12S-0420	L1213457-06	VOCMS33	0430_75	05/01/20 13:24
MS	R3525155-3	VOCMS33	0430_77	05/01/20 14:05
MSD	R3525155-4	VOCMS33	0430_78	05/01/20 14:26

4A-OR

METHOD BLANK

SAMPLE NO.:
R3525176-2

Lab Sample ID:	R3525176-2	**SDG:**	L1213457
Lab File ID:	0505_27A	**Preparation Date/Time:**	05/05/20 18:13
Instrument ID:	VOCMS38	**Analysis Date/Time:**	05/05/20 18:13
Analytical Batch:	WG1470899	**Dilution Factor:**	1
Analytical Method:	8260B	**Matrix:**	GW

Sample ID	Lab Sample ID	Instrument	File ID	Analysis *date/time*
LCS	R3525176-1	VOCMS38	0505_25A	05/05/20 17:35
MW-FD01-0420	L1213457-08	VOCMS38	0505_31	05/05/20 20:49

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0424_01	**SDG:**	L1213457
Instrument ID:	VOCMS16	**Analytical Method:**	8260B
Analysis Date/Time:	04/24/20 12:57		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	138
96	95	5	9	7
173	174	0	2	1
174	95	50	200	72
175	174	5	9	7
176	174	95	105	97
177	176	5	10	8

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-0.04	0.04	0424_05	04/24/20 14:19
STD-0.1	0.1	0424_06	04/24/20 14:40
STD-0.2	0.2	0424_07	04/24/20 15:00
STD-0.5	0.5	0424_08	04/24/20 15:21
STD-1	1	0424_09	04/24/20 15:41
STD-2	2	0424_10	04/24/20 16:01
STD-5.0	5.0	0424_11	04/24/20 16:22
STD-25	25	0424_12	04/24/20 16:42
STD-75	75	0424_13	04/24/20 17:03
STD-100	100	0424_14	04/24/20 17:23
STD-200	200	0424_15	04/24/20 17:43

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0424_21
Instrument ID: VOCMS16
Analysis Date/Time: 04/26/20 09:28
SDG: L1213457
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	130
96	95	5	9	6
173	174	0	2	1
174	95	50	200	77
175	174	5	9	7
176	174	95	105	99
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
SSCV	VOCMS160424200424_22499856	0424_22	04/26/20 09:48

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0506_31T
Instrument ID: VOCMS16
Analysis Date/Time: 05/06/20 21:25
SDG: L1213457
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	120
96	95	5	9	7
173	174	0	2	1
174	95	50	200	83
175	174	5	9	6
176	174	95	105	98
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	VOCMS160506200506_31499856	0506_31	05/06/20 21:25
LCS	R3525491-1	0506_31LCSA	05/06/20 21:25
LCSD	R3525491-2	0506_32A	05/06/20 21:45
RL	VOCMS160506200506_33499856	0506_33	05/06/20 22:06
BLANK	R3525491-3	0506_34	05/06/20 22:26
MW-13S-0420	L1213457-07	0506_40	05/07/20 00:41

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0429_04
Instrument ID: VOCMS23
Analysis Date/Time: 04/29/20 23:21
SDG: L1213457
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	117
96	95	5	9	7
173	174	0	2	0
174	95	50	200	85
175	174	5	9	8
176	174	95	105	96
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-0.04	0.04	0429_08	04/30/20 00:39
STD-0.1	0.1	0429_09	04/30/20 00:58
STD-0.2	0.2	0429_10	04/30/20 01:18
STD-0.5	0.5	0429_11	04/30/20 01:37
STD-1	1	0429_12	04/30/20 01:56
STD-2	2	0429_13	04/30/20 02:16
STD-5.0	5.0	0429_14	04/30/20 02:35
STD-25	25	0429_15	04/30/20 02:54
STD-75	75	0429_16	04/30/20 03:14
STD-100	100	0429_17	04/30/20 03:33
STD-200	200	0429_18	04/30/20 03:53
STD-10A	10A	0429_20	04/30/20 04:31
STD-15A	15A	0429_20	04/30/20 04:31
STD-1A	1A	0429_20	04/30/20 04:31
STD-20A	20A	0429_20	04/30/20 04:31
STD-5A	5A	0429_20	04/30/20 04:31

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0429_36	**SDG:**	L1213457
Instrument ID:	VOCMS23	**Analytical Method:**	8260B
Analysis Date/Time:	04/30/20 09:44		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	125
96	95	5	9	7
173	174	0	2	1
174	95	50	200	80
175	174	5	9	8
176	174	95	105	96
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-5.0	5.0	0429_39	04/30/20 10:43
STD-10	10	0429_40	04/30/20 11:02
STD-50	50	0429_41	04/30/20 11:22
STD-100	100	0429_42	04/30/20 11:41
STD-500	500	0429_43	04/30/20 12:00
STD-1000	1000	0429_44	04/30/20 12:20
SSCV	VOCMS230429200429_50500302	0429_50	04/30/20 14:16

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0501_01T
Instrument ID: VOCMS23
Analysis Date/Time: 05/01/20 10:15
SDG: L1213457
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	144
96	95	5	9	7
173	174	0	2	1
174	95	50	200	69
175	174	5	9	8
176	174	95	105	96
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	VOCMS230501200501_02500302	0501_02	05/01/20 10:34
LCS	R3524833-1	0501_03	05/01/20 10:53
RL	VOCMS230501200501_04500302	0501_04	05/01/20 11:13
BLANK	R3524833-2	0501_05	05/01/20 11:32
EB01-0420	L1213457-09	0501_06	05/01/20 12:17
TB01-0420	L1213457-12	0501_07	05/01/20 12:37
AB01-0420	L1213457-10	0501_16	05/01/20 15:32

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0422_02
Instrument ID: VOCMS30
Analysis Date/Time: 04/22/20 15:03
SDG: L1213457
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	108
96	95	5	9	7
173	174	0	2	0
174	95	50	200	92
175	174	5	9	7
176	174	95	105	95
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-0.04	0.04	0422_05	04/22/20 16:15
STD-0.1	0.1	0422_06	04/22/20 16:37
STD-0.2	0.2	0422_07	04/22/20 16:59
STD-0.5	0.5	0422_08	04/22/20 17:21
STD-1	1	0422_09	04/22/20 17:43
STD-2	2	0422_10	04/22/20 18:05
STD-5.0	5.0	0422_11	04/22/20 18:27
STD-25	25	0422_12	04/22/20 18:49
STD-75	75	0422_13	04/22/20 19:11
STD-100	100	0422_14	04/22/20 19:32
STD-200	200	0422_15	04/22/20 19:54
STD-10A	10A	0422_17	04/22/20 20:38
STD-15A	15A	0422_17	04/22/20 20:38
STD-1A	1A	0422_17	04/22/20 20:38
STD-20A	20A	0422_17	04/22/20 20:38
STD-5A	5A	0422_17	04/22/20 20:38
SSCV	VOCMS300422200422_19499669	0422_19	04/22/20 21:22

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0505_01T
Instrument ID: VOCMS30
Analysis Date/Time: 05/05/20 09:06
SDG: L1213457
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	107
96	95	5	9	7
173	174	0	2	1
174	95	50	200	93
175	174	5	9	7
176	174	95	105	99
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	VOCMS300505200505_02499669	0505_02	05/05/20 09:28
LCS	R3524791-1	0505_03	05/05/20 09:50
LCSD	R3524791-2	0505_04	05/05/20 10:12
RL	VOCMS300505200505_05499669	0505_05	05/05/20 10:34
BLANK	R3524791-3	0505_07	05/05/20 11:37
OS	L1214248-06	0505_11	05/05/20 13:06
OS	L1213457-11	0505_12	05/05/20 13:28
IDW-01-0420	L1213457-11	0505_12	05/05/20 13:28
MS	R3524791-4	0505_13	05/05/20 13:50
MS	R3524791-6	0505_14	05/05/20 14:12
MSD	R3524791-7	0505_15	05/05/20 14:34

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0402_01
Instrument ID: VOCMS33
Analysis Date/Time: 04/02/20 19:53
SDG: L1213457
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	122
96	95	5	9	6
173	174	0	2	1
174	95	50	200	82
175	174	5	9	8
176	174	95	105	99
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-0.04	0.04	0402_05	04/02/20 21:16
STD-0.1	0.1	0402_06	04/02/20 21:36
STD-0.2	0.2	0402_07	04/02/20 21:57
STD-0.5	0.5	0402_08	04/02/20 22:18
STD-1	1	0402_09	04/02/20 22:39
STD-2	2	0402_10	04/02/20 22:59
STD-5.0	5.0	0402_11	04/02/20 23:20
STD-25	25	0402_12	04/02/20 23:41
STD-75	75	0402_13	04/03/20 00:01
STD-100	100	0402_14	04/03/20 00:22
STD-200	200	0402_15	04/03/20 00:42
STD-10A	10A	0402_16	04/03/20 01:03
STD-15A	15A	0402_16	04/03/20 01:03
STD-1A	1A	0402_16	04/03/20 01:03
STD-20A	20A	0402_16	04/03/20 01:03
STD-5A	5A	0402_16	04/03/20 01:03
SSCV	VOCMS330402200402_19497896	0402_19	04/03/20 02:05

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID:	0430_52T	**SDG:**	L1213457
Instrument ID:	VOCMS33	**Analytical Method:**	8260B
Analysis Date/Time:	05/01/20 05:04		

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	104
96	95	5	9	6
173	174	0	2	1
174	95	50	200	96
175	174	5	9	8
176	174	95	105	100
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	VOCMS330430200430_53497896	0430_53	05/01/20 05:24
LCS	R3525155-1	0430_54	05/01/20 05:45
RL	VOCMS330430200430_55497896	0430_55	05/01/20 06:06
BLANK	R3525155-2	0430_56	05/01/20 06:27
MW-14S-0420	L1213457-01	0430_70	05/01/20 11:41
OS	L1213457-02	0430_71	05/01/20 12:01
MW-01S-0420	L1213457-02	0430_71	05/01/20 12:01
MW-03S-0420	L1213457-03	0430_72	05/01/20 12:22
MW-02S-0420	L1213457-04	0430_73	05/01/20 12:43
MW-08S-0420	L1213457-05	0430_74	05/01/20 13:03
MW-12S-0420	L1213457-06	0430_75	05/01/20 13:24
MS	R3525155-3	0430_77	05/01/20 14:05
MSD	R3525155-4	0430_78	05/01/20 14:26

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0429_05
Instrument ID: VOCMS38
Analysis Date/Time: 04/29/20 21:44
SDG: L1213457
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	118
96	95	5	9	6
173	174	0	2	1
174	95	50	200	85
175	174	5	9	8
176	174	95	105	95
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
STD-10A	10A	0429_06	04/29/20 22:16
STD-15A	15A	0429_06	04/29/20 22:16
STD-1A	1A	0429_06	04/29/20 22:16
STD-20A	20A	0429_06	04/29/20 22:16
STD-5A	5A	0429_06	04/29/20 22:16
STD-0.04	0.04	0429_09	04/29/20 23:14
STD-0.1	0.1	0429_10	04/29/20 23:33
STD-0.2	0.2	0429_11	04/29/20 23:52
STD-0.5	0.5	0429_12	04/30/20 00:12
STD-1	1	0429_13	04/30/20 00:31
STD-2	2	0429_14	04/30/20 00:50
STD-5.0	5.0	0429_15	04/30/20 01:10
STD-25	25	0429_16	04/30/20 01:29
STD-75	75	0429_17	04/30/20 01:48
STD-100	100	0429_18	04/30/20 02:07
STD-200	200	0429_19	04/30/20 02:27
SSCV	VOCMS380429200429_23500282	0429_23	04/30/20 03:44

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0505_01T
Instrument ID: VOCMS38
Analysis Date/Time: 05/05/20 09:06
SDG: L1213457
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	117
96	95	5	9	6
173	174	0	2	1
174	95	50	200	86
175	174	5	9	7
176	174	95	105	98
177	176	5	10	6

Sample ID	Lab Sample ID	File ID	Analysis date/time
CCV	VOCMS380505200505_22500282	0505_22	05/05/20 16:38

5A-OR

GC/MS INSTRUMENT PERFORMANCE CHECK

Lab File ID: 0505_23T
Instrument ID: VOCMS38
Analysis Date/Time: 05/05/20 16:57
SDG: L1213457
Analytical Method: 8260B

Target Mass (m/e)	Relative Mass	Low Limit	High Limit	% Relative Abundance
95	174	50	200	118
96	95	5	9	7
173	174	0	2	1
174	95	50	200	85
175	174	5	9	8
176	174	95	105	96
177	176	5	10	7

Sample ID	Lab Sample ID	File ID	Analysis date/time
ICV	VOCMS380505200505_24500282	0505_24	05/05/20 17:16
LCS	R3525176-1	0505_25A	05/05/20 17:35
RL	VOCMS380505200505_26500282	0505_26	05/05/20 17:54
BLANK	R3525176-2	0505_27A	05/05/20 18:13
MW-FD01-0420	L1213457-08	0505_31	05/05/20 20:49

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1213457	**Analytical Method:**	8260B
Instrument ID:	VOCMS16	**Calibration Start Date:**	04/24/20 14:19
Std File:	0506_31	**Calibration End Date:**	04/24/20 17:43
		Std Analysis Date:	05/06/20 21:25

Sample ID	File ID	1,4-DCB		8260-CB		8260-FB	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		62203	7.73	112875	6.46	320113	4.54
UPPER LIMIT		124406		225750		640226	
LOWER LIMIT		31102		56438		160057	
LCS R3525491-1 WG1471464 1x	0506_31LCSA	62203	7.73	112875	6.46	320113	4.54
LCSD R3525491-2 WG1471464 1x	0506_32A	61517	7.73	119775	6.47	330434	4.54
BLANK R3525491-3 WG1471464 1x	0506_34	61299	7.73	107938	6.47	310017	4.54
L1213457-07 WG1471464 10x	0506_40	60110	7.73	104873	6.46	308435	4.54

1,4-DCB - 8260-1,4-DICHLOROBENZENE-D4 8260-CB - 8260-CHLOROBENZENE-D5
8260-FB - 8260-FLUOROBENZENE

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1213457	**Analytical Method:**	8260B
Instrument ID:	VOCMS23	**Calibration Start Date:**	04/30/20 00:39
Std File:	0501_02	**Calibration End Date:**	04/30/20 12:20
		Std Analysis Date:	05/01/20 10:34

Sample ID	File ID	1,4-DCB		8260-CB		8260-FB	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		179701	8.32	247523	6.63	536594	4.68
UPPER LIMIT		359402		495046		1073188	
LOWER LIMIT		89851		123762		268297	
LCS R3524833-1 WG1469294 1x	0501_03	190674	8.32	254590	6.63	545935	4.68
BLANK R3524833-2 WG1469294 1x	0501_05	144146	8.32	220073	6.63	467205	4.68
L1213457-09 WG1469294 1x	0501_06	155309	8.32	238211	6.63	533871	4.68
L1213457-12 WG1469294 1x	0501_07	161704	8.32	252440	6.63	534035	4.68
L1213457-10 WG1469294 1x	0501_16	137828	8.32	220685	6.63	475388	4.68

1,4-DCB - 8260-1,4-DICHLOROBENZENE-D4 8260-CB - 8260-CHLOROBENZENE-D5
8260-FB - 8260-FLUOROBENZENE

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1213457	**Analytical Method:**	8260B
Instrument ID:	VOCMS30	**Calibration Start Date:**	04/22/20 16:15
Std File:	0505_02	**Calibration End Date:**	04/22/20 20:38
		Std Analysis Date:	05/05/20 09:28

Sample ID	File ID	1,4-DCB		8260-CB		8260-FB	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		89754	7.79	91952	6.11	194996	4.20
UPPER LIMIT		179508		183904		389992	
LOWER LIMIT		44877		45976		97498	
LCS R3524791-1 WG1470562 1x	0505_03	90682	7.79	91135	6.11	195731	4.19
LCSD R3524791-2 WG1470562 1x	0505_04	94865	7.79	97458	6.11	205588	4.20
BLANK R3524791-3 WG1470562 1x	0505_07	71568	7.79	82855	6.11	187934	4.20
OS L1214248-06 WG1470562 1x	0505_11	66008	7.79	75385	6.11	175321	4.20
L1213457-11 WG1470562 1x	0505_12	66336	7.79	75752	6.11	175507	4.20
OS L1213457-11 WG1470562 1x	0505_12	66336	7.79	75752	6.11	175507	4.20
MS R3524791-4 WG1470562 1x	0505_13	88469	7.79	90185	6.11	193655	4.20
MS R3524791-6 WG1470562 1x	0505_14	91339	7.79	91898	6.11	198959	4.20
MSD R3524791-7 WG1470562 1x	0505_15	92893	7.79	93698	6.11	206130	4.20

1,4-DCB - 8260-1,4-DICHLOROBENZENE-D4 8260-CB - 8260-CHLOROBENZENE-D5
8260-FB - 8260-FLUOROBENZENE

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1213457	**Analytical Method:**	8260B
Instrument ID:	VOCMS33	**Calibration Start Date:**	04/02/20 21:16
Std File:	0430_53	**Calibration End Date:**	04/03/20 01:03
		Std Analysis Date:	05/01/20 05:24

Sample ID	File ID	1,4-DCB		8260-CB		8260-FB	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		421231	8.25	371848	6.54	975624	4.60
UPPER LIMIT		842462		743696		1951248	
LOWER LIMIT		210616		185924		487812	
LCS R3525155-1 WG1469102 1x	0430_54	432732	8.25	390818	6.55	1001307	4.60
BLANK R3525155-2 WG1469102 1x	0430_56	379899	8.25	345439	6.55	894991	4.60
L1213457-01 WG1469102 1x	0430_70	310680	8.25	307100	6.55	789156	4.60
L1213457-02 WG1469102 1x	0430_71	283353	8.25	280419	6.55	721182	4.60
OS L1213457-02 WG1469102 1x	0430_71	283353	8.25	280419	6.55	721182	4.60
L1213457-03 WG1469102 1x	0430_72	300213	8.25	299833	6.55	761532	4.60
L1213457-04 WG1469102 1x	0430_73	297140	8.25	299799	6.55	747764	4.60
L1213457-05 WG1469102 1x	0430_74	301670	8.25	299046	6.55	762242	4.60
L1213457-06 WG1469102 1x	0430_75	303260	8.25	306200	6.55	775918	4.60
MS R3525155-3 WG1469102 1x	0430_77	369681	8.25	332717	6.55	828274	4.60
MSD R3525155-4 WG1469102 1x	0430_78	362124	8.25	322174	6.54	827554	4.60

1,4-DCB - 8260-1,4-DICHLOROBENZENE-D4 8260-CB - 8260-CHLOROBENZENE-D5
8260-FB - 8260-FLUOROBENZENE

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

8A-OR

INTERNAL STANDARD AND RETENTION TIME

SDG:	L1213457	**Analytical Method:**	8260B
Instrument ID:	VOCMS38	**Calibration Start Date:**	04/29/20 22:16
Std File:	0505_22	**Calibration End Date:**	04/30/20 02:27
		Std Analysis Date:	05/05/20 16:38

Sample ID	File ID	1,4-DCB		8260-CB		8260-FB	
		Response	*RT*	*Response*	*RT*	*Response*	*RT*
STANDARD		68542	7.98	126488	6.51	299871	4.56
UPPER LIMIT		138500		257870		609448	
LOWER LIMIT		34625		64468		152362	
LCS R3525176-1 WG1470899 1x	0505_25A	71436	7.98	131660	6.50	311024	4.56
BLANK R3525176-2 WG1470899 1x	0505_27A	65657	7.98	128945	6.50	308235	4.56
L1213457-08 WG1470899 5x	0505_31	63761	7.98	128732	6.50	308513	4.56

1,4-DCB - 8260-1,4-DICHLOROBENZENE-D4 8260-CB - 8260-CHLOROBENZENE-D5
8260-FB - 8260-FLUOROBENZENE

*: Value outside the established quality control limits.
D: Surrogate recovery cannot be used for control limit evaluation due to dilution.

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
MW-14S-0420

Lab Sample ID:	L1213457-01	**SDG:**	L1213457
Client Sample ID:	MW-14S-0420	**Collected Date/Time:**	04/28/20 09:26
Lab File ID:	0430_70	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS33	**Preparation Date/Time:**	05/01/20 11:41
Analytical Batch:	WG1469102	**Analysis Date/Time:**	05/01/20 11:41
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.81	5.78	J4	0.300	1.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
MW-01S-0420

Lab Sample ID:	L1213457-02	**SDG:**	L1213457
Client Sample ID:	MW-01S-0420	**Collected Date/Time:**	04/28/20 11:34
Lab File ID:	0430_71	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS33	**Preparation Date/Time:**	05/01/20 12:01
Analytical Batch:	WG1469102	**Analysis Date/Time:**	05/01/20 12:01
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	0	U	J4 J5	0.300	1.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
MW-03S-0420

Lab Sample ID:	L1213457-03	**SDG:**	L1213457
Client Sample ID:	MW-03S-0420	**Collected Date/Time:**	04/28/20 12:58
Lab File ID:	0430_72	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS33	**Preparation Date/Time:**	05/01/20 12:22
Analytical Batch:	WG1469102	**Analysis Date/Time:**	05/01/20 12:22
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.81	33.1	J4	0.300	1.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
MW-02S-0420

Lab Sample ID:	L1213457-04	**SDG:**	L1213457
Client Sample ID:	MW-02S-0420	**Collected Date/Time:**	04/28/20 13:37
Lab File ID:	0430_73	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS33	**Preparation Date/Time:**	05/01/20 12:43
Analytical Batch:	WG1469102	**Analysis Date/Time:**	05/01/20 12:43
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.81	45.6	J4	0.300	1.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
MW-08S-0420

Lab Sample ID:	L1213457-05	**SDG:**	L1213457
Client Sample ID:	MW-08S-0420	**Collected Date/Time:**	04/28/20 14:30
Lab File ID:	0430_74	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS33	**Preparation Date/Time:**	05/01/20 13:03
Analytical Batch:	WG1469102	**Analysis Date/Time:**	05/01/20 13:03
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.81	80.7	J4	0.300	1.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
MW-12S-0420

Lab Sample ID:	L1213457-06	**SDG:**	L1213457
Client Sample ID:	MW-12S-0420	**Collected Date/Time:**	04/28/20 15:11
Lab File ID:	0430_75	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS33	**Preparation Date/Time:**	05/01/20 13:24
Analytical Batch:	WG1469102	**Analysis Date/Time:**	05/01/20 13:24
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.81	30.7	J4	0.300	1.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
MW-13S-0420

Lab Sample ID:	L1213457-07	**SDG:**	L1213457
Client Sample ID:	MW-13S-0420	**Collected Date/Time:**	04/28/20 15:52
Lab File ID:	0506_40	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS16	**Preparation Date/Time:**	05/07/20 00:41
Analytical Batch:	WG1471464	**Analysis Date/Time:**	05/07/20 00:41
Dilution Factor:	10	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	0.5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.74	209		3.00	10.0

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
MW-FD01-0420

Lab Sample ID:	L1213457-08	**SDG:**	L1213457
Client Sample ID:	MW-FD01-0420	**Collected Date/Time:**	04/28/20 15:53
Lab File ID:	0505_31	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS38	**Preparation Date/Time:**	05/05/20 20:49
Analytical Batch:	WG1470899	**Analysis Date/Time:**	05/05/20 20:49
Dilution Factor:	5	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	1 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.77	204		1.50	5.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
EB01-0420

Lab Sample ID:	L1213457-09	**SDG:**	L1213457
Client Sample ID:	EB01-0420	**Collected Date/Time:**	04/28/20 16:05
Lab File ID:	0501_06	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS23	**Preparation Date/Time:**	05/01/20 12:17
Analytical Batch:	WG1469294	**Analysis Date/Time:**	05/01/20 12:17
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	0	U		0.300	1.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
AB01-0420

Lab Sample ID:	L1213457-10	**SDG:**	L1213457
Client Sample ID:	AB01-0420	**Collected Date/Time:**	04/28/20 16:15
Lab File ID:	0501_16	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS23	**Preparation Date/Time:**	05/01/20 15:32
Analytical Batch:	WG1469294	**Analysis Date/Time:**	05/01/20 15:32
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	5.90	U		0.300	1.00

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
IDW-01-0420

Lab Sample ID:	L1213457-11	**SDG:**	L1213457
Client Sample ID:	IDW-01-0420	**Collected Date/Time:**	04/28/20 17:00
Lab File ID:	0505_12	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS30	**Preparation Date/Time:**	05/05/20 13:28
Analytical Batch:	WG1470562	**Analysis Date/Time:**	05/05/20 13:28
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	100 µL
Matrix:	Waste	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	_____

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.38	0.0877	J3	0.0167	0.0500

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
TB01-0420

Lab Sample ID:	L1213457-12	**SDG:**	L1213457
Client Sample ID:	TB01-0420	**Collected Date/Time:**	04/28/20 08:30
Lab File ID:	0501_07	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS23	**Preparation Date/Time:**	05/01/20 12:37
Analytical Batch:	WG1469294	**Analysis Date/Time:**	05/01/20 12:37
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			ug/l		*ug/l*	*ug/l*
Tetrachloroethene	127-18-4	0	U		0.300	1.00

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1213457 **Analytical Method:** 8260B

Instrument ID: VOCMS16

Analyte	**RRF: 0.1**	**RRF: 0.2**	**RRF: 0.5**	**RRF: 1**	**RRF: 2**	**RRF: 5.0**	**RRF: 25**	**RRF: 75**	**RRF: 100**	**RRF: 200**
Analysis date/time	04/24/20 14:40	04/24/20 15:00	04/24/20 15:21	04/24/20 15:41	04/24/20 16:01	04/24/20 16:22	04/24/20 16:42	04/24/20 17:03	04/24/20 17:23	04/24/20 17:43
TETRACHLOROETHENE	0.6660	0.5890	0.6250	0.6210	0.6540	0.6270	0.6260	0.6110	0.6340	0.6160
1,2-DICHLOROETHANE-D4	0.3610	0.3590	0.3570	0.3580	0.3540	0.3530	0.3780	0.3540	0.36	0.3340
TOLUENE-D8	2.3770	2.4370	2.50	2.3850	2.2850	2.1750	2.2060	2.0780	2.1630	2.04
4-BROMOFLUOROBENZENE	0.8680	0.8510	0.8520	0.8480	0.8520	0.8180	0.8090	0.78	0.82	0.8440
File ID:	0424_06	0424_07	0424_08	0424_09	0424_10	0424_11	0424_12	0424_13	0424_14	0424_15

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1213457 **Analytical Method:** 8260B

Instrument ID: VOCMS16

Analyte	RRF: 0.04	RRF. Avg	%RSD	COD
Analysis date/time	04/24/20 14:19			
TETRACHLOROETHENE		0.626977	3.43	
1,2-DICHLOROETHANE-D4	0.3480	0.35604	2.92	
TOLUENE-D8	2.3630	2.27357	6.65	
4-BROMOFLUOROBENZENE	0.8230	0.833184	3.07	
File ID:	0424_05			

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1213457 **Analytical Method:** 8260B

Instrument ID: VOCMS23

Analyte	**RRF: 0.1**	**RRF: 0.2**	**RRF: 0.5**	**RRF: 1**	**RRF: 2**	**RRF: 5.0**	**RRF: 25**	**RRF: 75**	**RRF: 100**	**RRF: 200**
Analysis date/time	04/30/20 00:58	04/30/20 01:18	04/30/20 01:37	04/30/20 01:56	04/30/20 02:16	04/30/20 02:35	04/30/20 02:54	04/30/20 03:14	04/30/20 03:33	04/30/20 03:53
TETRACHLOROETHENE	0.7170	0.6270	0.6360	0.56	0.5770	0.5150	0.57	0.6080	0.5560	0.5560
1,2-DICHLOROETHANE-D4	0.3260	0.3240	0.3280	0.3180	0.3090	0.3090	0.3080	0.2890	0.2860	0.2830
TOLUENE-D8	2.2780	2.2870	2.2220	2.21	2.1130	2.0550	1.99	1.8910	1.8220	1.7570
4-BROMOFLUOROBENZENE	0.89	0.8880	0.86	0.8860	0.8460	0.8220	0.8450	0.7950	0.7760	0.76
File ID:	0429_09	0429_10	0429_11	0429_12	0429_13	0429_14	0429_15	0429_16	0429_17	0429_18

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1213457 **Analytical Method:** 8260B

Instrument ID: VOCMS23

Analyte	RRF: 0.04	RRF. Avg	%RSD	COD
Analysis date/time	04/30/20 00:39			
TETRACHLOROETHENE		0.592108	9.63	
1,2-DICHLOROETHANE-D4	0.33	0.309967	5.62	
TOLUENE-D8	2.2720	2.081389	9.27	
4-BROMOFLUOROBENZENE	0.8620	0.838992	5.43	
File ID:	0429_08			

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1213457 **Analytical Method:** 8260B

Instrument ID: VOCMS30

Analyte	**RRF: 0.2**	**RRF: 0.5**	**RRF: 1**	**RRF: 2**	**RRF: 5.0**	**RRF: 25**	**RRF: 75**	**RRF: 100**	**RRF: 200**	**RRF: 0.04**
Analysis date/time	04/22/20 16:59	04/22/20 17:21	04/22/20 17:43	04/22/20 18:05	04/22/20 18:27	04/22/20 18:49	04/22/20 19:11	04/22/20 19:32	04/22/20 19:54	04/22/20 16:15
TETRACHLOROETHENE	0.6420	0.9150	0.7990	0.7790	0.8280	0.8480	0.8770	0.8960	0.89	
1,2-DICHLOROETHANE-D4	0.3610	0.3510	0.35	0.34	0.3360	0.3470	0.3050	0.3130	0.29	0.3520
TOLUENE-D8	2.4020	2.3360	2.2420	2.1930	2.1910	2.2080	2.1490	2.1780	2.1520	2.3940
4-BROMOFLUOROBENZENE	0.8230	0.8130	0.7690	0.8140	0.7820	0.8410	0.8370	0.8580	0.8740	0.8110
File ID:	0422_07	0422_08	0422_09	0422_10	0422_11	0422_12	0422_13	0422_14	0422_15	0422_05

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1213457 **Analytical Method:** 8260B

Instrument ID: VOCMS30

Analyte	RRF: 0.1	RRF. Avg	%RSD	COD
Analysis date/time	04/22/20 16:37			
TETRACHLOROETHENE		0.830408	10.14	
1,2-DICHLOROETHANE-D4	0.34	0.335089	6.76	
TOLUENE-D8	2.3940	2.258007	4.53	
4-BROMOFLUOROBENZENE	0.8350	0.823282	3.72	
File ID:	0422_06			

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1213457 **Analytical Method:** 8260B

Instrument ID: VOCMS33

Analyte	**RRF: 0.2**	**RRF: 0.5**	**RRF: 1**	**RRF: 2**	**RRF: 5.0**	**RRF: 25**	**RRF: 75**	**RRF: 100**	**RRF: 200**	**RRF: 0.04**
Analysis date/time	04/02/20 21:57	04/02/20 22:18	04/02/20 22:39	04/02/20 22:59	04/02/20 23:20	04/02/20 23:41	04/03/20 00:01	04/03/20 00:22	04/03/20 00:42	04/02/20 21:16
TETRACHLOROETHENE	0.4990	0.4840	0.4270	0.5130	0.3990	0.5660	0.5530	0.5340	0.4990	
1,2-DICHLOROETHANE-D4	0.3320	0.3310	0.3230	0.3240	0.3120	0.3230	0.2940	0.2840	0.2770	0.3270
TOLUENE-D8	2.3320	2.3080	2.2860	2.2380	2.1130	2.1920	2.0570	2.0550	1.9790	2.3260
4-BROMOFLUOROBENZENE	0.9050	0.9140	0.9010	0.90	0.8450	0.8810	0.8130	0.8030	0.8010	0.8970
File ID:	0402_07	0402_08	0402_09	0402_10	0402_11	0402_12	0402_13	0402_14	0402_15	0402_05

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1213457 **Analytical Method:** 8260B

Instrument ID: VOCMS33

Analyte	RRF: 0.1	RRF. Avg	%RSD	COD
Analysis date/time	04/02/20 21:36			
TETRACHLOROETHENE		0.496975	11.06	
1,2-DICHLOROETHANE-D4	0.3310	0.314204	6.36	
TOLUENE-D8	2.3380	2.202164	5.93	
4-BROMOFLUOROBENZENE	0.9220	0.871178	5.34	
File ID:	0402_06			

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1213457 **Analytical Method:** 8260B

Instrument ID: VOCMS38

Analyte	**RRF: 0.5**	**RRF: 1**	**RRF: 2**	**RRF: 5.0**	**RRF: 25**	**RRF: 75**	**RRF: 100**	**RRF: 200**	**RRF: 0.04**	**RRF: 0.1**
Analysis date/time	04/30/20 00:12	04/30/20 00:31	04/30/20 00:50	04/30/20 01:10	04/30/20 01:29	04/30/20 01:48	04/30/20 02:07	04/30/20 02:27	04/29/20 23:14	04/29/20 23:33
TETRACHLOROETHENE	0.6460	0.6160	0.5240	0.5790	0.6190	0.6410	0.6320	0.6080		
1,2-DICHLOROETHANE-D4	0.3310	0.3210	0.3170	0.32	0.2850	0.2830	0.2640	0.2590	0.33	0.3340
TOLUENE-D8	2.3880	2.3020	2.2430	2.1460	2.1050	2.0890	2.0440	1.9940	2.3740	2.3510
4-BROMOFLUOROBENZENE	0.8310	0.8320	0.8220	0.8290	0.81	0.8410	0.8270	0.8230	0.8240	0.8320
File ID:	0429_12	0429_13	0429_14	0429_15	0429_16	0429_17	0429_18	0429_19	0429_09	0429_10

6A-OR

GC/MS INITIAL CALIBRATION DATA

SDG: L1213457 **Analytical Method:** 8260B

Instrument ID: VOCMS38

Analyte	RRF: 0.2	RRF. Avg	%RSD	COD
Analysis date/time	04/29/20 23:52			
TETRACHLOROETHENE		0.608203	6.6	
1,2-DICHLOROETHANE-D4	0.3260	0.306283	9.17	
TOLUENE-D8	2.3660	2.218295	6.62	
4-BROMOFLUOROBENZENE	0.8060	0.825234	1.24	
File ID:	0429_11			

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/24/20 14:19
Instrument ID:	VOCMS16	**Calibration (end) date/time:**	04/24/20 17:43
Lab File ID:	0424_22	**Analysis date/time:**	04/26/20 09:48
Analytical Method:	8260B	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.626977	0.57943930		7.58	40	0.0050	0.004621	92.40	
1,2-DICHLOROETHANE-D4	0.356040	0.37713630		5.93	40	0.0160	0.01695	106	70 - 130
4-BROMOFLUOROBENZENE	0.833184	0.826646		0.7850	40	0.0160	0.01587	99.20	67 - 138
TOLUENE-D8	2.273570	2.384222		4.87	40	0.0160	0.01678	105	75 - 131

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/24/20 14:19
Instrument ID:	VOCMS16	**Calibration (end) date/time:**	04/24/20 17:43
Lab File ID:	0506_31	**Analysis date/time:**	05/06/20 21:25
Analytical Method:	8260B	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.626977	0.68524660		9.29		0.0050	0.005465	109	
1,2-DICHLOROETHANE-D4	0.356040	0.33999870		4.51		0.0160	0.01528	95.50	70 - 130
4-BROMOFLUOROBENZENE	0.833184	0.72190480		13.40		0.0160	0.01386	86.60	70 - 130
TOLUENE-D8	2.273570	2.382795		4.80		0.0160	0.01677	105	70 - 130

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/30/20 00:39
Instrument ID:	VOCMS23	**Calibration (end) date/time:**	04/30/20 12:20
Lab File ID:	0429_50	**Analysis date/time:**	04/30/20 14:16
Analytical Method:	8260B	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.592108	0.50560430		14.60	40	0.0050	0.004270	85.40	
1,2-DICHLOROETHANE-D4	0.309967	0.34532550		11.40	40	0.0160	0.01783	111	70 - 130
4-BROMOFLUOROBENZENE	0.838992	0.88169810		5.09	40	0.0160	0.01681	105	67 - 138
TOLUENE-D8	2.081389	2.278767		9.48	40	0.0160	0.01752	109	75 - 131

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/30/20 00:39
Instrument ID:	VOCMS23	**Calibration (end) date/time:**	04/30/20 12:20
Lab File ID:	0501_02	**Analysis date/time:**	05/01/20 10:34
Analytical Method:	8260B	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.592108	0.54018740		8.77		0.0050	0.004562	91.20	
1,2-DICHLOROETHANE-D4	0.309967	0.36229440		16.90		0.0160	0.01870	117	70 - 130
4-BROMOFLUOROBENZENE	0.838992	0.83890380		0.0105		0.0160	0.01600	100	70 - 130
TOLUENE-D8	2.081389	2.202341		5.81		0.0160	0.01693	106	70 - 130

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/22/20 16:15
Instrument ID:	VOCMS30	**Calibration (end) date/time:**	04/22/20 20:38
Lab File ID:	0422_19	**Analysis date/time:**	04/22/20 21:22
Analytical Method:	8260B	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.830408	0.77116880		7.13	40	0.0050	0.004643	92.90	
1,2-DICHLOROETHANE-D4	0.335089	0.33978160		1.40	40	0.0160	0.01622	101	70 - 130
4-BROMOFLUOROBENZENE	0.823282	0.796662		3.23	40	0.0160	0.01548	96.70	67 - 138
TOLUENE-D8	2.258007	2.210268		2.11	40	0.0160	0.01566	97.90	75 - 131

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/22/20 16:15
Instrument ID:	VOCMS30	**Calibration (end) date/time:**	04/22/20 20:38
Lab File ID:	0505_02	**Analysis date/time:**	05/05/20 09:28
Analytical Method:	8260B	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.830408	0.94651130		14		0.0050	0.005699	114	
1,2-DICHLOROETHANE-D4	0.335089	0.38155140		13.90		0.0160	0.01822	114	70 - 130
4-BROMOFLUOROBENZENE	0.823282	0.72729250		11.70		0.0160	0.01413	88.30	70 - 130
TOLUENE-D8	2.258007	2.156690		4.49		0.0160	0.01528	95.50	70 - 130

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/02/20 21:16
Instrument ID:	VOCMS33	**Calibration (end) date/time:**	04/03/20 01:03
Lab File ID:	0402_19	**Analysis date/time:**	04/03/20 02:05
Analytical Method:	8260B	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.496975	0.52299270		5.24	40	0.0050	0.005262	105	
1,2-DICHLOROETHANE-D4	0.314204	0.33352320		6.15	40	0.0160	0.01698	106	70 - 130
4-BROMOFLUOROBENZENE	0.871178	0.88626330		1.73	40	0.0160	0.01628	102	67 - 138
TOLUENE-D8	2.202164	2.300786		4.48	40	0.0160	0.01672	105	75 - 131

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/02/20 21:16
Instrument ID:	VOCMS33	**Calibration (end) date/time:**	04/03/20 01:03
Lab File ID:	0430_53	**Analysis date/time:**	05/01/20 05:24
Analytical Method:	8260B	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.496975	0.69287680		39.40		0.0050	0.006971	139	
1,2-DICHLOROETHANE-D4	0.314204	0.31128390		0.9290		0.0160	0.01585	99.10	70 - 130
4-BROMOFLUOROBENZENE	0.871178	0.96547250		10.80		0.0160	0.01773	111	70 - 130
TOLUENE-D8	2.202164	2.479462		12.60		0.0160	0.01801	113	70 - 130

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/29/20 22:16
Instrument ID:	VOCMS38	**Calibration (end) date/time:**	04/30/20 02:27
Lab File ID:	0429_23	**Analysis date/time:**	04/30/20 03:44
Analytical Method:	8260B	**Sample ID:**	SSCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.608203	0.63324890		4.12	40	0.0050	0.005206	104	
1,2-DICHLOROETHANE-D4	0.306283	0.31237940		1.99	40	0.0160	0.01632	102	70 - 130
4-BROMOFLUOROBENZENE	0.825234	0.86663310		5.02	40	0.0160	0.01680	105	67 - 138
TOLUENE-D8	2.218295	2.391993		7.83	40	0.0160	0.01725	108	75 - 131

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/29/20 22:16
Instrument ID:	VOCMS38	**Calibration (end) date/time:**	04/30/20 02:27
Lab File ID:	0505_22	**Analysis date/time:**	05/05/20 16:38
Analytical Method:	8260B	**Sample ID:**	CCV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.608203	0.60937330		0.1920		0.0050	0.005010	100	
1,2-DICHLOROETHANE-D4	0.306283	0.35479920		15.80		0.0160	0.01853	116	70 - 130
4-BROMOFLUOROBENZENE	0.825234	0.86988490		5.41		0.0160	0.01687	105	70 - 130
TOLUENE-D8	2.218295	2.347061		5.80		0.0160	0.01693	106	70 - 130

7A-OR

GC/MS CONTINUING CALIBRATION VERIFICATION

SDG:	L1213457	**Calibration (begin) date/time:**	04/29/20 22:16
Instrument ID:	VOCMS38	**Calibration (end) date/time:**	04/30/20 02:27
Lab File ID:	0505_24	**Analysis date/time:**	05/05/20 17:16
Analytical Method:	8260B	**Sample ID:**	ICV

Analyte	Avg. RRF	RRF	Min. RRF	Diff.	Max Diff.	True Value	Result	Result	Limits
				%	*%*	*mg/l*	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.608203	0.67742660		11.40		0.0050	0.005569	111	
1,2-DICHLOROETHANE-D4	0.306283	0.36131380		18		0.0160	0.01887	118	70 - 130
4-BROMOFLUOROBENZENE	0.825234	0.87492150		6.02		0.0160	0.01696	106	70 - 130
TOLUENE-D8	2.218295	2.319665		4.57		0.0160	0.01673	105	70 - 130

7E-OR

REPORTING LEVEL VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1213457	**Calibration (begin) date/time:**	04/24/20 14:19
Instrument ID:	VOCMS16	**Calibration (end) date/time:**	04/24/20 17:43
Lab File ID:	0506_33	**Analysis date/time:**	05/06/20 22:06
Analytical Method:	8260B	**Sample ID:**	RL

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.0010	0.001073	107	60 - 140

7E-OR

REPORTING LEVEL VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1213457	**Calibration (begin) date/time:**	04/30/20 00:39
Instrument ID:	VOCMS23	**Calibration (end) date/time:**	04/30/20 12:20
Lab File ID:	0501_04	**Analysis date/time:**	05/01/20 11:13
Analytical Method:	8260B	**Sample ID:**	RL

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.0010	0.0008269	82.70	60 - 140

7E-OR

REPORTING LEVEL VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1213457	**Calibration (begin) date/time:**	04/22/20 16:15
Instrument ID:	VOCMS30	**Calibration (end) date/time:**	04/22/20 20:38
Lab File ID:	0505_05	**Analysis date/time:**	05/05/20 10:34
Analytical Method:	8260B	**Sample ID:**	RL

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.0010	0.001289	129	60 - 140

7E-OR

REPORTING LEVEL VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1213457	**Calibration (begin) date/time:**	04/02/20 21:16
Instrument ID:	VOCMS33	**Calibration (end) date/time:**	04/03/20 01:03
Lab File ID:	0430_55	**Analysis date/time:**	05/01/20 06:06
Analytical Method:	8260B	**Sample ID:**	RL

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.0010	0.001982	198	60 - 140

7E-OR

REPORTING LEVEL VERIFICATION
SINGLE COMPONENT ANALYTES

SDG:	L1213457	**Calibration (begin) date/time:**	04/29/20 22:16
Instrument ID:	VOCMS38	**Calibration (end) date/time:**	04/30/20 02:27
Lab File ID:	0505_26	**Analysis date/time:**	05/05/20 17:54
Analytical Method:	8260B	**Sample ID:**	RL

Analyte	**True Value**	**Result**	**Result**	**Limits**
	mg/l	*mg/l*	*% Rec.*	*%*
TETRACHLOROETHENE	0.0010	0.001075	108	60 - 140

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1213457	**Analytical Method:**	8260B
Instrument ID:	VOCMS16	**Calibration Start Date:**	04/24/20 14:19
		Calibration End Date:	04/24/20 17:43

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	VOCMS160424200424_01499856	0424_01	04/24/20 12:57	1	
TUNE	VOCMS160424200424_01499856	0424_01	04/24/20 12:57	1	
CAL	0.04	0424_05	04/24/20 14:19	1	
CAL	0.1	0424_06	04/24/20 14:40	1	
CAL	0.2	0424_07	04/24/20 15:00	1	
CAL	0.5	0424_08	04/24/20 15:21	1	
CAL	1	0424_09	04/24/20 15:41	1	
CAL	2	0424_10	04/24/20 16:01	1	
CAL	5.0	0424_11	04/24/20 16:22	1	
CAL	25	0424_12	04/24/20 16:42	1	
CAL	75	0424_13	04/24/20 17:03	1	
CAL	100	0424_14	04/24/20 17:23	1	
CAL	200	0424_15	04/24/20 17:43	1	
TUNE	VOCMS160424200424_21499856	0424_21	04/26/20 09:28	1	
TUNE	VOCMS160424200424_21499856	0424_21	04/26/20 09:28	1	
SSCV	VOCMS160424200424_22499856	0424_22	04/26/20 09:48	1	
TUNE	VOCMS160506200506_01T499856	0506_01T	05/06/20 10:44	1	
TUNE	VOCMS160506200506_01T499856	0506_01T	05/06/20 10:44	1	
TUNE	VOCMS160506200506_30T499856	0506_30T	05/06/20 21:04	1	
TUNE	VOCMS160506200506_30T499856	0506_30T	05/06/20 21:04	1	
ICV	VOCMS160506200506_31499856	0506_31	05/06/20 21:25	1	
TUNE	VOCMS160506200506_31T499856	0506_31T	05/06/20 21:25	1	
TUNE	VOCMS160506200506_31T499856	0506_31T	05/06/20 21:25	1	
LCS	R3525491-1	0506_31LCSA	05/06/20 21:25	1	WG1471464
LCSD	R3525491-2	0506_32A	05/06/20 21:45	1	WG1471464
RL	VOCMS160506200506_33499856	0506_33	05/06/20 22:06	1	
BLANK	R3525491-3	0506_34	05/06/20 22:26	1	WG1471464
MW-13S-0420	L1213457-07	0506_40	05/07/20 00:41	10	WG1471464

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1213457	**Analytical Method:**	8260B
Instrument ID:	VOCMS23	**Calibration Start Date:**	04/30/20 00:39
		Calibration End Date:	04/30/20 12:20

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	VOCMS230429200429_01500302	0429_01	04/29/20 22:22	1	
TUNE	VOCMS230429200429_01500302	0429_01	04/29/20 22:22	1	
TUNE	VOCMS230429200429_02500302	0429_02	04/29/20 22:41	1	
TUNE	VOCMS230429200429_02500302	0429_02	04/29/20 22:41	1	
TUNE	VOCMS230429200429_03500302	0429_03	04/29/20 23:02	1	
TUNE	VOCMS230429200429_03500302	0429_03	04/29/20 23:02	1	
TUNE	VOCMS230429200429_04500302	0429_04	04/29/20 23:21	1	
TUNE	VOCMS230429200429_04500302	0429_04	04/29/20 23:21	1	
CAL	0.04	0429_08	04/30/20 00:39	1	
CAL	0.1	0429_09	04/30/20 00:58	1	
CAL	0.2	0429_10	04/30/20 01:18	1	
CAL	0.5	0429_11	04/30/20 01:37	1	
CAL	1	0429_12	04/30/20 01:56	1	
CAL	2	0429_13	04/30/20 02:16	1	
CAL	5.0	0429_14	04/30/20 02:35	1	
CAL	25	0429_15	04/30/20 02:54	1	
CAL	75	0429_16	04/30/20 03:14	1	
CAL	100	0429_17	04/30/20 03:33	1	
CAL	200	0429_18	04/30/20 03:53	1	
CAL	1A	0429_20	04/30/20 04:31	1	
CAL	5A	0429_20	04/30/20 04:31	1	
CAL	10A	0429_20	04/30/20 04:31	1	
CAL	15A	0429_20	04/30/20 04:31	1	
CAL	20A	0429_20	04/30/20 04:31	1	
TUNE	VOCMS230429200429_36500302	0429_36	04/30/20 09:44	1	
TUNE	VOCMS230429200429_36500302	0429_36	04/30/20 09:44	1	
CAL	5.0	0429_39	04/30/20 10:43	1	
CAL	10	0429_40	04/30/20 11:02	1	
CAL	50	0429_41	04/30/20 11:22	1	
CAL	100	0429_42	04/30/20 11:41	1	
CAL	500	0429_43	04/30/20 12:00	1	
CAL	1000	0429_44	04/30/20 12:20	1	
SSCV	VOCMS230429200429_50500302	0429_50	04/30/20 14:16	1	
TUNE	VOCMS230501200501_01T500302	0501_01T	05/01/20 10:15	1	
TUNE	VOCMS230501200501_01T500302	0501_01T	05/01/20 10:15	1	
ICV	VOCMS230501200501_02500302	0501_02	05/01/20 10:34	1	
LCS	R3524833-1	0501_03	05/01/20 10:53	1	WG1469294
RL	VOCMS230501200501_04500302	0501_04	05/01/20 11:13	1	
BLANK	R3524833-2	0501_05	05/01/20 11:32	1	WG1469294
EB01-0420	L1213457-09	0501_06	05/01/20 12:17	1	WG1469294
TB01-0420	L1213457-12	0501_07	05/01/20 12:37	1	WG1469294
AB01-0420	L1213457-10	0501_16	05/01/20 15:32	1	WG1469294
TUNE	VOCMS230501200501_26T500302	0501_26T	05/01/20 18:47	1	
TUNE	VOCMS230501200501_26T500302	0501_26T	05/01/20 18:47	1	

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1213457	**Analytical Method:**	8260B
Instrument ID:	VOCMS30	**Calibration Start Date:**	04/22/20 16:15
		Calibration End Date:	04/22/20 20:38

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	VOCMS300422200422_02499669	0422_02	04/22/20 15:03	1	
TUNE	VOCMS300422200422_02499669	0422_02	04/22/20 15:03	1	
CAL	0.04	0422_05	04/22/20 16:15	1	
CAL	0.1	0422_06	04/22/20 16:37	1	
CAL	0.2	0422_07	04/22/20 16:59	1	
CAL	0.5	0422_08	04/22/20 17:21	1	
CAL	1	0422_09	04/22/20 17:43	1	
CAL	2	0422_10	04/22/20 18:05	1	
CAL	5.0	0422_11	04/22/20 18:27	1	
CAL	25	0422_12	04/22/20 18:49	1	
CAL	75	0422_13	04/22/20 19:11	1	
CAL	100	0422_14	04/22/20 19:32	1	
CAL	200	0422_15	04/22/20 19:54	1	
CAL	1A	0422_17	04/22/20 20:38	1	
CAL	5A	0422_17	04/22/20 20:38	1	
CAL	10A	0422_17	04/22/20 20:38	1	
CAL	15A	0422_17	04/22/20 20:38	1	
CAL	20A	0422_17	04/22/20 20:38	1	
SSCV	VOCMS300422200422_19499669	0422_19	04/22/20 21:22	1	
TUNE	VOCMS300505200505_01T499669	0505_01T	05/05/20 09:06	1	
TUNE	VOCMS300505200505_01T499669	0505_01T	05/05/20 09:06	1	
ICV	VOCMS300505200505_02499669	0505_02	05/05/20 09:28	1	
LCS	R3524791-1	0505_03	05/05/20 09:50	1	WG1470562
LCSD	R3524791-2	0505_04	05/05/20 10:12	1	WG1470562
RL	VOCMS300505200505_05499669	0505_05	05/05/20 10:34	1	
BLANK	R3524791-3	0505_07	05/05/20 11:37	1	WG1470562
OS	L1214248-06	0505_11	05/05/20 13:06	1	WG1470562
IDW-01-0420	L1213457-11	0505_12	05/05/20 13:28	1	WG1470562
MS	R3524791-4	0505_13	05/05/20 13:50	1	WG1470562
MS	R3524791-6	0505_14	05/05/20 14:12	1	WG1470562
MSD	R3524791-7	0505_15	05/05/20 14:34	1	WG1470562
TUNE	VOCMS300505200505_17T499669	0505_17T	05/05/20 15:19	1	
TUNE	VOCMS300505200505_17T499669	0505_17T	05/05/20 15:19	1	

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1213457	**Analytical Method:**	8260B
Instrument ID:	VOCMS33	**Calibration Start Date:**	04/02/20 21:16
		Calibration End Date:	04/03/20 01:03

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	VOCMS330402200402_01497896	0402_01	04/02/20 19:53	1	
TUNE	VOCMS330402200402_01497896	0402_01	04/02/20 19:53	1	
CAL	0.04	0402_05	04/02/20 21:16	1	
CAL	0.1	0402_06	04/02/20 21:36	1	
CAL	0.2	0402_07	04/02/20 21:57	1	
CAL	0.5	0402_08	04/02/20 22:18	1	
CAL	1	0402_09	04/02/20 22:39	1	
CAL	2	0402_10	04/02/20 22:59	1	
CAL	5.0	0402_11	04/02/20 23:20	1	
CAL	25	0402_12	04/02/20 23:41	1	
CAL	75	0402_13	04/03/20 00:01	1	
CAL	100	0402_14	04/03/20 00:22	1	
CAL	200	0402_15	04/03/20 00:42	1	
CAL	1A	0402_16	04/03/20 01:03	1	
CAL	5A	0402_16	04/03/20 01:03	1	
CAL	10A	0402_16	04/03/20 01:03	1	
CAL	15A	0402_16	04/03/20 01:03	1	
CAL	20A	0402_16	04/03/20 01:03	1	
SSCV	VOCMS330402200402_19497896	0402_19	04/03/20 02:05	1	
TUNE	VOCMS330430200430_01T497896	0430_01T	04/30/20 08:42	1	
TUNE	VOCMS330430200430_01T497896	0430_01T	04/30/20 08:42	1	
TUNE	VOCMS330430200430_27T497896	0430_27T	04/30/20 19:18	1	
TUNE	VOCMS330430200430_27T497896	0430_27T	04/30/20 19:18	1	
TUNE	VOCMS330430200430_52T497896	0430_52T	05/01/20 05:04	1	
TUNE	VOCMS330430200430_52T497896	0430_52T	05/01/20 05:04	1	
ICV	VOCMS330430200430_53497896	0430_53	05/01/20 05:24	1	
LCS	R3525155-1	0430_54	05/01/20 05:45	1	WG1469102
RL	VOCMS330430200430_55497896	0430_55	05/01/20 06:06	1	
BLANK	R3525155-2	0430_56	05/01/20 06:27	1	WG1469102
MW-14S-0420	L1213457-01	0430_70	05/01/20 11:41	1	WG1469102
MW-01S-0420	L1213457-02	0430_71	05/01/20 12:01	1	WG1469102
MW-03S-0420	L1213457-03	0430_72	05/01/20 12:22	1	WG1469102
MW-02S-0420	L1213457-04	0430_73	05/01/20 12:43	1	WG1469102
MW-08S-0420	L1213457-05	0430_74	05/01/20 13:03	1	WG1469102
MW-12S-0420	L1213457-06	0430_75	05/01/20 13:24	1	WG1469102
MS	R3525155-3	0430_77	05/01/20 14:05	1	WG1469102
MSD	R3525155-4	0430_78	05/01/20 14:26	1	WG1469102

8B-OR

ANALYTICAL SEQUENCE

SDG:	L1213457	**Analytical Method:**	8260B
Instrument ID:	VOCMS38	**Calibration Start Date:**	04/29/20 22:16
		Calibration End Date:	04/30/20 02:27

Client Sample ID	Lab Sample ID	File ID	Analysis Date Time	Dilution	Batch
TUNE	VOCMS380429200429_05500282	0429_05	04/29/20 21:44	1	
TUNE	VOCMS380429200429_05500282	0429_05	04/29/20 21:44	1	
CAL	1A	0429_06	04/29/20 22:16	1	
CAL	5A	0429_06	04/29/20 22:16	1	
CAL	10A	0429_06	04/29/20 22:16	1	
CAL	15A	0429_06	04/29/20 22:16	1	
CAL	20A	0429_06	04/29/20 22:16	1	
CAL	0.04	0429_09	04/29/20 23:14	1	
CAL	0.1	0429_10	04/29/20 23:33	1	
CAL	0.2	0429_11	04/29/20 23:52	1	
CAL	0.5	0429_12	04/30/20 00:12	1	
CAL	1	0429_13	04/30/20 00:31	1	
CAL	2	0429_14	04/30/20 00:50	1	
CAL	5.0	0429_15	04/30/20 01:10	1	
CAL	25	0429_16	04/30/20 01:29	1	
CAL	75	0429_17	04/30/20 01:48	1	
CAL	100	0429_18	04/30/20 02:07	1	
CAL	200	0429_19	04/30/20 02:27	1	
SSCV	VOCMS380429200429_23500282	0429_23	04/30/20 03:44	1	
TUNE	VOCMS380505200505_01T500282	0505_01T	05/05/20 09:06	1	
TUNE	VOCMS380505200505_01T500282	0505_01T	05/05/20 09:06	1	
CCV	VOCMS380505200505_22500282	0505_22	05/05/20 16:38	1	
TUNE	VOCMS380505200505_23T500282	0505_23T	05/05/20 16:57	1	
TUNE	VOCMS380505200505_23T500282	0505_23T	05/05/20 16:57	1	
ICV	VOCMS380505200505_24500282	0505_24	05/05/20 17:16	1	
LCS	R3525176-1	0505_25A	05/05/20 17:35	1	WG1470899
RL	VOCMS380505200505_26500282	0505_26	05/05/20 17:54	1	
BLANK	R3525176-2	0505_27A	05/05/20 18:13	1	WG1470899
MW-FD01-0420	L1213457-08	0505_31	05/05/20 20:49	5	WG1470899

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3524791-3

Lab Sample ID:	R3524791-3	**SDG:**	L1213457
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	0505_07	**Received Date/Time:**	
Instrument ID:	VOCMS30	**Preparation Date/Time:**	05/05/20 11:37
Analytical Batch:	WG1470562	**Analysis Date/Time:**	05/05/20 11:37
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	100 µL
Matrix:	Waste	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	0	U		0.0167	0.0500

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3524833-2

Lab Sample ID:	R3524833-2	**SDG:**	L1213457
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	0501_05	**Received Date/Time:**	
Instrument ID:	VOCMS23	**Preparation Date/Time:**	05/01/20 11:32
Analytical Batch:	WG1469294	**Analysis Date/Time:**	05/01/20 11:32
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	0	U		0.000300	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3525155-2

Lab Sample ID:	R3525155-2	**SDG:**	L1213457
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	0430_56	**Received Date/Time:**	
Instrument ID:	VOCMS33	**Preparation Date/Time:**	05/01/20 06:27
Analytical Batch:	WG1469102	**Analysis Date/Time:**	05/01/20 06:27
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	0	U		0.000300	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3525176-2

Lab Sample ID:	R3525176-2	**SDG:**	L1213457
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	0505_27A	**Received Date/Time:**	
Instrument ID:	VOCMS38	**Preparation Date/Time:**	05/05/20 18:13
Analytical Batch:	WG1470899	**Analysis Date/Time:**	05/05/20 18:13
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	0	U		0.000300	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3525491-3

Lab Sample ID:	R3525491-3	**SDG:**	L1213457
Client Sample ID:	BLANK	**Collected Date/Time:**	
Lab File ID:	0506_34	**Received Date/Time:**	
Instrument ID:	VOCMS16	**Preparation Date/Time:**	05/06/20 22:26
Analytical Batch:	WG1471464	**Analysis Date/Time:**	05/06/20 22:26
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	0	U		0.000300	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3524791-1

Lab Sample ID:	R3524791-1	**SDG:**	L1213457
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	0505_03	**Received Date/Time:**	
Instrument ID:	VOCMS30	**Preparation Date/Time:**	05/05/20 09:50
Analytical Batch:	WG1470562	**Analysis Date/Time:**	05/05/20 09:50
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	100 µL
Matrix:	Waste	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.39	0.306		0.000333	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3524833-1

Lab Sample ID:	R3524833-1	**SDG:**	L1213457
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	0501_03	**Received Date/Time:**	
Instrument ID:	VOCMS23	**Preparation Date/Time:**	05/01/20 10:53
Analytical Batch:	WG1469294	**Analysis Date/Time:**	05/01/20 10:53
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.89	0.00439		0.000300	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3525155-1

Lab Sample ID:	R3525155-1	**SDG:**	L1213457
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	0430_54	**Received Date/Time:**	
Instrument ID:	VOCMS33	**Preparation Date/Time:**	05/01/20 05:45
Analytical Batch:	WG1469102	**Analysis Date/Time:**	05/01/20 05:45
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.81	0.00688	J4	0.000300	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3525176-1

Lab Sample ID:	R3525176-1	**SDG:**	L1213457
Client Sample ID:	LCS	**Collected Date/Time:**	_____
Lab File ID:	0505_25A	**Received Date/Time:**	_____
Instrument ID:	VOCMS38	**Preparation Date/Time:**	05/05/20 17:35
Analytical Batch:	WG1470899	**Analysis Date/Time:**	05/05/20 17:35
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.77	0.00544		0.000300	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3525491-1

Lab Sample ID:	R3525491-1	**SDG:**	L1213457
Client Sample ID:	LCS	**Collected Date/Time:**	
Lab File ID:	0506_31LCSA	**Received Date/Time:**	
Instrument ID:	VOCMS16	**Preparation Date/Time:**	05/06/20 21:25
Analytical Batch:	WG1471464	**Analysis Date/Time:**	05/06/20 21:25
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.74	0.00547		0.000300	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3524791-2

Lab Sample ID:	R3524791-2	**SDG:**	L1213457
Client Sample ID:	LCSD	**Collected Date/Time:**	
Lab File ID:	0505_04	**Received Date/Time:**	
Instrument ID:	VOCMS30	**Preparation Date/Time:**	05/05/20 10:12
Analytical Batch:	WG1470562	**Analysis Date/Time:**	05/05/20 10:12
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	100 µL
Matrix:	Waste	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.39	0.245	J3	0.000333	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3525491-2

Lab Sample ID:	R3525491-2	**SDG:**	L1213457
Client Sample ID:	LCSD	**Collected Date/Time:**	
Lab File ID:	0506_32A	**Received Date/Time:**	
Instrument ID:	VOCMS16	**Preparation Date/Time:**	05/06/20 21:45
Analytical Batch:	WG1471464	**Analysis Date/Time:**	05/06/20 21:45
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.74	0.00540		0.000300	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3524791-4

Lab Sample ID:	R3524791-4	**SDG:**	L1213457
Client Sample ID:	MS	**Collected Date/Time:**	04/28/20 17:00
Lab File ID:	0505_13	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS30	**Preparation Date/Time:**	05/05/20 13:50
Analytical Batch:	WG1470562	**Analysis Date/Time:**	05/05/20 13:50
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	100 µL
Matrix:	Waste	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.38	0.279		0.000333	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3524791-6

Lab Sample ID:	R3524791-6	**SDG:**	L1213457
Client Sample ID:	MS	**Collected Date/Time:**	04/30/20 14:00
Lab File ID:	0505_14	**Received Date/Time:**	05/01/20 08:45
Instrument ID:	VOCMS30	**Preparation Date/Time:**	05/05/20 14:12
Analytical Batch:	WG1470562	**Analysis Date/Time:**	05/05/20 14:12
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	100 µL
Matrix:	Waste	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.39	0.254		0.000333	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3525155-3

Lab Sample ID:	R3525155-3	**SDG:**	L1213457
Client Sample ID:	MS	**Collected Date/Time:**	04/28/20 11:34
Lab File ID:	0430_77	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS33	**Preparation Date/Time:**	05/01/20 14:05
Analytical Batch:	WG1469102	**Analysis Date/Time:**	05/01/20 14:05
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.81	0.0103	J5	0.000300	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3524791-7

Lab Sample ID:	R3524791-7	**SDG:**	L1213457
Client Sample ID:	MSD	**Collected Date/Time:**	04/30/20 14:00
Lab File ID:	0505_15	**Received Date/Time:**	05/01/20 08:45
Instrument ID:	VOCMS30	**Preparation Date/Time:**	05/05/20 14:34
Analytical Batch:	WG1470562	**Analysis Date/Time:**	05/05/20 14:34
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	100 µL
Matrix:	Waste	**Initial Wt/Vol:**	
Total Solids (%):		**Final Wt/Vol:**	

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.39	0.220		0.000333	0.00100

1A-OR

SAMPLE RESULT SUMMARY
ORGANIC ANALYSIS DATA SHEET

SAMPLE NO.:
R3525155-4

Lab Sample ID:	R3525155-4	**SDG:**	L1213457
Client Sample ID:	MSD	**Collected Date/Time:**	04/28/20 11:34
Lab File ID:	0430_78	**Received Date/Time:**	04/29/20 09:00
Instrument ID:	VOCMS33	**Preparation Date/Time:**	05/01/20 14:26
Analytical Batch:	WG1469102	**Analysis Date/Time:**	05/01/20 14:26
Dilution Factor:	1	**Prep Method:**	8260B
Analytical Method:	8260B	**Sample Vol Used:**	5 mL
Matrix:	GW	**Initial Wt/Vol:**	_____
Total Solids (%):	_____	**Final Wt/Vol:**	5 mL

Analyte	CAS	RT	Result	Qualifier	MDL	RDL
			mg/l		*mg/l*	*mg/l*
Tetrachloroethene	127-18-4	5.81	0.00987	J5	0.000300	0.00100

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

COD	Coefficient of Determination.
Mass	Mass of parameter.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
RRF	Relative Response Factor.
RT	Retention Time.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

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

ACCREDITATIONS & LOCATIONS

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

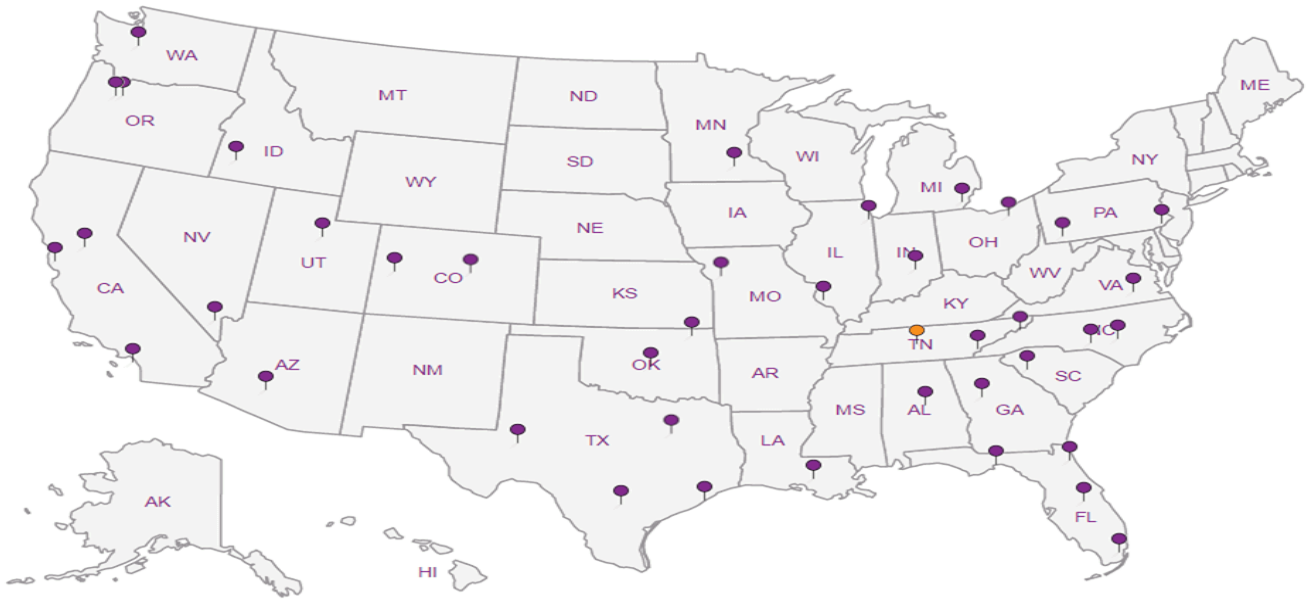
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

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



Jacobs - Montgomery, AL

4121 Carmichael Rd, Suite 400
Montgomery, AL 36106

Billing Information:
Ms. Kaye Walker
4121 Carmichael Rd., Ste. 400
Montgomery, AL 36106

Pres Chk

Report to:
Ms. Kaye Walker

Email To: kaye.walker@jacobs.com

Project Description:
Montgomery DEAP

City/State Collected:

Please Circle: PT MT CT ET

Phone: 334-215-9058

Client Project #
TO 148014442

Lab Project #
CH2MMAL-MDEAP

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative: V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	V8260TCLP 1L-Clr-NoPres	Remarks	Sample # (lab only)
MW-14S-0420	G	GW		4/28/20	0926	3	X				-01
MW-01S-0420	G	GW		4/28/20	1134	3	X			MS/SD	-02
MW-03S-0420	G	GW		4/28/20	1258	3	X				-03
MW-02S-0420	G	GW		4/28/20	1337	3	X				-04
MW-08S-0420	G	GW		4/28/20	1430	3	X				-05
MW-12S-0420	G	GW		4/28/20	1511	3	X				-06
MW-13S-0420	G	GW		4/28/20	1552	3	X				-07
MW-FD01-0420	G	GW		4/28/20	1553	3	X			FD	-08
EB01-0420	G	GW		4/28/20	1605	3	X				-09
AB01-0420	G	GW		4/28/20	1615	3	X				-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 796701775 51

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
John Towns	4/28/20	1800	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: (Yes) / No
HCL / MeoH
TBR

Temp: 3.9 +0 =3.9 °C Bottles Received: 7

Date: 4-28-20 Time: 0800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Chain of Custody Page 1 of 2

Pace Analytical®
National Center for Testing & Innovation

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

SDG # L1213457
G071

Acctnum: CH2MMAL
Template: T166437
Prelogin: P768671
PM: 034 - Craig Cothron
PB: TB 4/6/20
Shipped Via: FedEX Ground

Jacobs - Montgomery, AL

4121 Carmichael Rd, Suite 400
Montgomery, AL 36106

Billing Information:
Ms. Kaye Walker
4121 Carmichael Rd., Ste. 400
Montgomery, AL 36106

Report to: **Ms. Kaye Walker**

Email To: **kaye.walker@jacobs.com**

Project Description: **Montgomery DEAP**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **334-215-9058**

Client Project # **TO 148014442**

Lab Project # **CH2MMAL-MDEAP**

Collected by (print):

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	V8260 40mlAmb-HCl	V8260 40mlAmb-HCl-Blk	V8260TCLP 1L-Clr-NoPres								Remarks	Sample # (lab only)
IDW-01-0420		~~GW~~ TCLP		4/28/20	1700	~~3~~ 1	~~X~~		X									-11
~~Trip Blank~~		~~GW~~				3	X											
TB01-0420		GW		4/28/20	0830	~~3~~ 1	~~X~~	X									TB	-12
		GW				3	X											
		GW				3	X											
		GW				3	X											
		GW				3	X											
		TCLP				1			X									
		TCLP				1			X									
		TCLP				1			X									

Chain of Custody Page 2 of 2

Pace Analytical®
National Center for Testing & Innovation

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

SDG # 213457

Table #

Acctnum: **CH2MMAL**

Template: **T166437**

Prelogin: **P768671**

PM: **034 - Craig Cothron**

PB: TB 4-16-20

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
John Towns	4/28/20	1800		Temp: 4.1 °C Bottles Received: 3.2-0.1=3.9 31	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)		
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4-29-20 Time: 0900	Hold: Condition: NCF / OK

Appendix C
Field Records

Location MGM DEAP Date 4/27/20

Project / Client ~~GT~~ groundwater sampling

1000 - G. Davis, S. Scott, J. Towns — Jacobs arrives on site for gw sampling event. Weather: clear, low 60°F, high 75°F. Conduct H&S meeting. Conduct site walk. View well locations.

1130 G. Davis off site. J. Towns, S. Scott to hardware store to buy socket wrench and buckets.

1200 Eat lunch.

1230 Begin collecting water levels.

Well ID	DTW	Comment
MW-14S	23.73	
MW-13S	24.10	
MW-8S	30.95	
MW-8I	30.90	
MW-7S	30.56	
MW-7I	30.61	
MW-4I	28.56	TD = >100 ft.
MW-4S	27.60	TD = 38.50
MW-9S	52.15	

ST →

Location MGM DEAP Date 4/27/20

Project / Client groundwater sampling

Well ID	DTW	Comment
MW-01I	36.02	TD = >100 ft. measured on 4/28/20 @ 10:20
MW-01S	34.94	TD = 51.56
MW-02S	36.23	
MW-03S	52.48	
MW-05I	54.41	
MW-10S	53.82	Gate code = 1887
MW-12I	19.81	
MW-12S	19.70	

ST

1545 - Could not locate MW-01S. It is buried under gravel in parking area. Go to store to buy a shovel to dig around.

1610 - Return to MW-01S area and begin digging to locate well.

1745 - Finish looking for the day. Still could not find it. We may be able to get a metal ~~detector~~ detector tomorrow. Will try again tomorrow. All off site.

4/27/20

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-14S	SAMPLE ID: MW-14S-0420	DATE: 4/28/2020

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 49.31	STATIC DEPTH TO WATER (ft): 24.78	WELL CAPACITY (gal/ft): 0.163

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (49.31 - 24.78) X 0.163 = 4.0 gal

PURGE METHOD: Low-flow	PURGE INITIATED AT: 0845	PURGE ENDED AT:	TOTAL VOL. PURGED (gal):

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE ~~(micromhos)~~ mS/cm	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
0900	0.1	0.1	0.07	24.79	5.07	23.64	0.180	1.44	58.7	204.6
0910	0.7	0.8	0.07	24.81	4.83	23.47	0.175	1.26	4.54	230.8
0920	0.7	1.5	0.07	24.81	4.82	23.73	0.174	0.50	4.46	249.1
0923	0.7	2.2	0.07	24.80	4.81	23.71	0.176	0.44	4.44	252.1
0926	0.7	2.9	0.07	24.80	4.79	23.74	0.175	0.84	4.42	255.7

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: John Towns/Jacobs	SAMPLER(S) SIGNATURE(S): [signature]	
SAMPLING METHOD(S): Bladder Pump/Low-Flow	SAMPLING INITIATED AT: 0926	SAMPLING ENDED AT: —
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
3	CG	40 ml	HCl	120 ml	4.79	VOC 8260

REMARKS: Equip Vol = (Tubing length x tubing capacity) + pump vol + flow thru vol = gal

(50 X 0.006) + 0.20 + 0.25 = 0.75 gal

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Based on FL DEP-SOP-001/01: Form FD 2000-24

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-01S	SAMPLE ID: MW-01S-0420	DATE: 4/28/2020

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 51.56	STATIC DEPTH TO WATER (ft): 34.94	WELL CAPACITY (gal/ft): 0.163

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (51.56 – 34.94) X 0.163 =

PURGE METHOD: Low-flow	PURGE INITIATED AT: 1045	PURGE ENDED AT:	TOTAL VOL PURGED (gal): 1.93

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE ~~(umhos)~~ mS/cm	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1112	0.25	0.25	0.08	34.96	6.31	30.19	0.567	252	6.08	188.1
1116	0.24	0.49	0.08	34.96	5.48	26.14	0.196	122.4	8.78	203.6
1119	0.24	0.73	0.08	34.96	5.39	26.04	0.186	78.9	8.82	208.9
1122	0.24	0.97	0.08	34.96	5.30	25.87	0.185	52.6	8.69	213.3
1125	0.24	1.21	0.08	34.96	5.23	26.06	0.182	41.7	8.65	215.4
1128	0.24	1.45	0.08	34.96	5.17	26.08	0.182	30.0	8.62	221.6
1131	0.24	1.69	0.08	34.96	5.17	26.05	0.182	20.8	8.61	224.5
1134	0.24	1.93	0.08	34.96	5.12	26.03	0.182	18.2	8.59	226.2

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: John Towns / Jacobs	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S): Low-Flow Bladder Pump	SAMPLING INITIATED AT: 1134	SAMPLING ENDED AT: —
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N) MS/SD

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
3	CG	40 ml	HCl	40 x 3 = ~~120~~ 360 / 9	5.12	VOC 8260

REMARKS: Tubing Dia = 3/8", length = 50ft, Flow thru cell = 0.25 gal, Pump vol = 0.2 gal (MS/SD)

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Equip Vol = (50 x 0.006) + 0.25 + 0.2 = 0.75 gal

Based on FL DEP-SOP-001/01: Form FD 2000-24

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-03S	SAMPLE ID: MW-03S-0420	DATE: 4/28/2020

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 59.41	STATIC DEPTH TO WATER (ft): 52.40	WELL CAPACITY (gal/ft): 0.163

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (–) X 0.163 =

PURGE METHOD: Low-Flow | PURGE INITIATED AT: 1240 | PURGE ENDED AT: | TOTAL VOL. PURGED (gal): 1.45

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE ~~(µmhos)~~ mS/cm	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1243	0.25	0.25	0.08	*	4.90	25.00	0.165	17.9	5.92	236.3
1246	0.24	0.49	0.08	↓	4.71	22.59	0.156	9.66	5.13	245.3
1249	0.24	0.73	0.08		4.63	22.17	0.152	8.01	5.12	249.9
1252	0.24	0.97	0.08		4.60	22.05	0.152	7.35	5.08	252.9
1255	0.24	1.21	0.08		4.61	22.03	0.153	6.89	5.06	253.6
1258	0.24	1.45	0.08		4.60	21.99	0.153	6.13	5.04	254.8

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: John Towns / Jacobs	SAMPLER(S) SIGNATURE(S):
SAMPLING METHOD(S): Low-Flow	SAMPLING INITIATED AT: 1258
SAMPLING ENDED AT: —	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)
DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
3	CG	40 ml	HCl	40 x 3 = 120	4.60	VOC 8260

REMARKS:

Tubing = 3/8", Length = 65', Flow thru = 0.25 gal, Pump vol = 0.2 gal

* DTW = below top of pump

Equip Vol = (65 x 0.006) + 0.25 + 0.2 = 0.84

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Based on FL DEP-SOP-001/01: Form FD 2000-24

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-025	SAMPLE ID: MW-025-0420	DATE: 4/28/2020

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 58.62	STATIC DEPTH TO WATER (ft): 36.18	WELL CAPACITY (gal/ft): 0.163

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (58.62 – 36.18) X 0.163 =

PURGE METHOD: Low-flow	PURGE INITIATED AT: 1320	PURGE ENDED AT:	TOTAL VOL. PURGED (gal): 1.45

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE (~~mhos~~ mS/cm)	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1325	0.25	0.25	0.1	36.20	4.90	27.30	0.198	>1000	6.86	249.0
1328	0.3	0.55	0.1	36.20	4.84	25.57	0.199	69.5	6.08	252.4
1331	0.3	0.85	0.1	36.21	4.82	25.42	0.199	16.6	6.12	255.9
1334	0.3	1.15	0.1	36.20	4.80	25.39	0.199	11.4	6.11	257.1
1337	0.3	1.45	0.1	36.20	4.79	25.36	0.198	10.8	6.11	258.9

WELL CAPACITY (Gallons per Foot) 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: John Towns	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S): Low-Flow, Bladder Pump	SAMPLING INITIATED AT: 1337	SAMPLING ENDED AT: —
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD
3	CG	40 ml	HCl	40 x 3 = 120	4.79	VOC 8260

REMARKS:
Cloudy at start. Equip Vol = 0.81 gal

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Based on FL DEP-SOP-001/01: Form FD 2000-24

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-08S	SAMPLE ID: MW-08S-0420	DATE: 4/28/20

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 51.46	STATIC DEPTH TO WATER (ft): 31.16	WELL CAPACITY (gal/ft): 0.163

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (51.46 - 31.16) X 0.16 =

PURGE METHOD: Low-Flow | PURGE INITIATED AT: 1410 | PURGE ENDED AT: 1430 | TOTAL VOL PURGED (gal): 2.05

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE mS/cm ~~(µmhos)~~	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1412	0.25	0.25	0.1	31.17	5.17	27.06	0.103	21.4	7.10	193.9
1415	0.3	0.55	0.1	31.17	4.66	24.95	0.095	4.26	6.20	218.1
1418	0.3	0.85	0.1	31.17	4.53	24.58	0.140	3.08	5.90	241.2
1421	0.3	1.15	0.1	31.17	4.54	24.41	0.190	1.86	5.77	258.1
1424	0.3	1.45	0.1	31.17	4.53	24.51	0.202	1.85	5.67	259.1
1427	0.3	1.75	0.1	31.17	4.53	24.51	0.204	1.82	5.58	260.2
1430	0.3	2.05	0.1	31.17	4.51	24.49	0.204	1.68	5.61	261.9

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: John Towns	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S): Low-Flow, Bladder Pump	SAMPLING INITIATED AT: 1430	SAMPLING ENDED AT: —
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	
3	CG	40 ml	HCl	40 x 3 = 120	4.51	VOC 8260

REMARKS: (Tube length x tube capacity) + Flow thru Vol. + pump vol.
(50 x 0.006) + 0.25 + 0.2 = 0.75 gal

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Based on FL DEP-SOP-001/01: Form FD 2000-24

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-138	SAMPLE ID:	DATE: 4/28/2020

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 47.46	STATIC DEPTH TO WATER (ft): 25.39	WELL CAPACITY (gal/ft): 0.16

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (47.46 – 25.39) X 0.16 =

PURGE METHOD: Low-Flow, Bladder Pump	PURGE INITIATED AT: ~~1435~~ 1535	PURGE ENDED AT: 1552	TOTAL VOL. PURGED (gal): 1.7

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE (mS/cm)	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
~~1537~~										
~~1437~~	0.25	0.25	0.1	25.39	5.36	23.69	0.136	9.74	6.22	236.9
~~1440~~ 1540	0.3	0.55	0.1	25.39	5.31	22.14	0.133	2.95	5.77	241.6
1543	0.3	0.85	0.1	25.39	5.08	21.96	0.151	4.63	5.48	245.1
1546	0.3	1.15	0.1	25.39	4.87	21.94	0.169	$2.22	5.20	247.5
1549	0.3	1.45	0.1	25.39	4.86	21.91	0.169	2.38	5.17	248.3
1552	0.3	~~1.4~~ 1.7	0.1	25.39	4.86	21.90	0.170	1.46	5.16	248.7

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: John Towns / Jacobs	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S):	SAMPLING INITIATED AT: 1552	SAMPLING ENDED AT:
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: (Y) N MW-FD01-0420 @1553

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD
6	CG	40 mL	HCl	40×6 = 240	4.86	VOC 8260

REMARKS: Equip vol = (50 × 0.006) + 0.25 + 0.2 = 0.75 gal

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Based on FL DEP-SOP-001/01: Form FD 2000-24

Montgomery Downtown Environmental Assessment Project
GROUNDWATER SAMPLING LOG

SITE NAME: Montgomery DEAP	SITE LOCATION: Downtown Montgomery, AL	PROJECT NUMBER: 666378.01.GW
WELL NO: MW-12S	SAMPLE ID: MW-12S-0420	DATE: 4/28/2020

PURGING DATA

WELL DIAMETER (in): 2	TOTAL WELL DEPTH (ft): 42.00	STATIC DEPTH TO WATER (ft): 20.31	WELL CAPACITY (gal/ft): 0.163

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH – DEPTH TO WATER) X WELL CAPACITY =

= (42 - 20.31) X 0.163 =

PURGE METHOD: Low-flow | PURGE INITIATED AT: 1451 | PURGE ENDED AT: | TOTAL VOL. PURGED (gal):

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH	TEMP. (°C)	SPECIFIC CONDUCTANCE ~~(umhos)~~ mS/cm	TURBIDITY (NTUs)	Dissolved Oxygen (mg/L)	Oxygen-Reduction Potential (mV)
1454	0.5	0.5	0.1	20.32	5.18	22.63	0.167	52.20	4.74	241.7
1459	0.3	0.8	0.1	20.32	4.99	22.116	0.161	31.6	4.54	250.8
1502	0.3	1.1	0.1	20.32	4.92	22.05	0.160	23.2	4.52	255.8
1505	0.3	1.4	0.1	~~20.32~~ ~~21.89~~	4.91	21.89	0.160	10.8	4.38	258.2
1508	0.3	1.7	0.1	20.32	4.90	21.89	0.160	8.61	4.38	259.1
1511	0.3	2.0	0.1	20.32	4.90	21.85	0.160	7.32	4.33	259.4

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: John Towns / Jacobs	SAMPLER(S) SIGNATURE(S):	
SAMPLING METHOD(S): Low-Flow, Bladder Pump	SAMPLING INITIATED AT: 1511	SAMPLING ENDED AT:
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD
3	CG	40 ml	HCl	40 x 3 = 120	4.90	VOC 8260

REMARKS: Equip. Vol = (45 x 0.006) + 0.25 + 0.2 = 0.72 gal

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; PE = POLYETHYLENE; O = OTHER (SPECIFY)

Based on FL DEP-SOP-001/01: Form FD 2000-24

Appendix D
Site Photographs

308 North Lawrence Street

308 North Lawrence Street

520 North Court Street - Abandoned Bus Washing Well

520 North Court Street

520 North Court Street

520 North Court Street

520 North Court Street

619 North McDonough Street

619 North McDonough Street

619 North McDonough Street

East Jefferson Street/113 Madison Avenue

East Jefferson Street/113 Madison Avenue

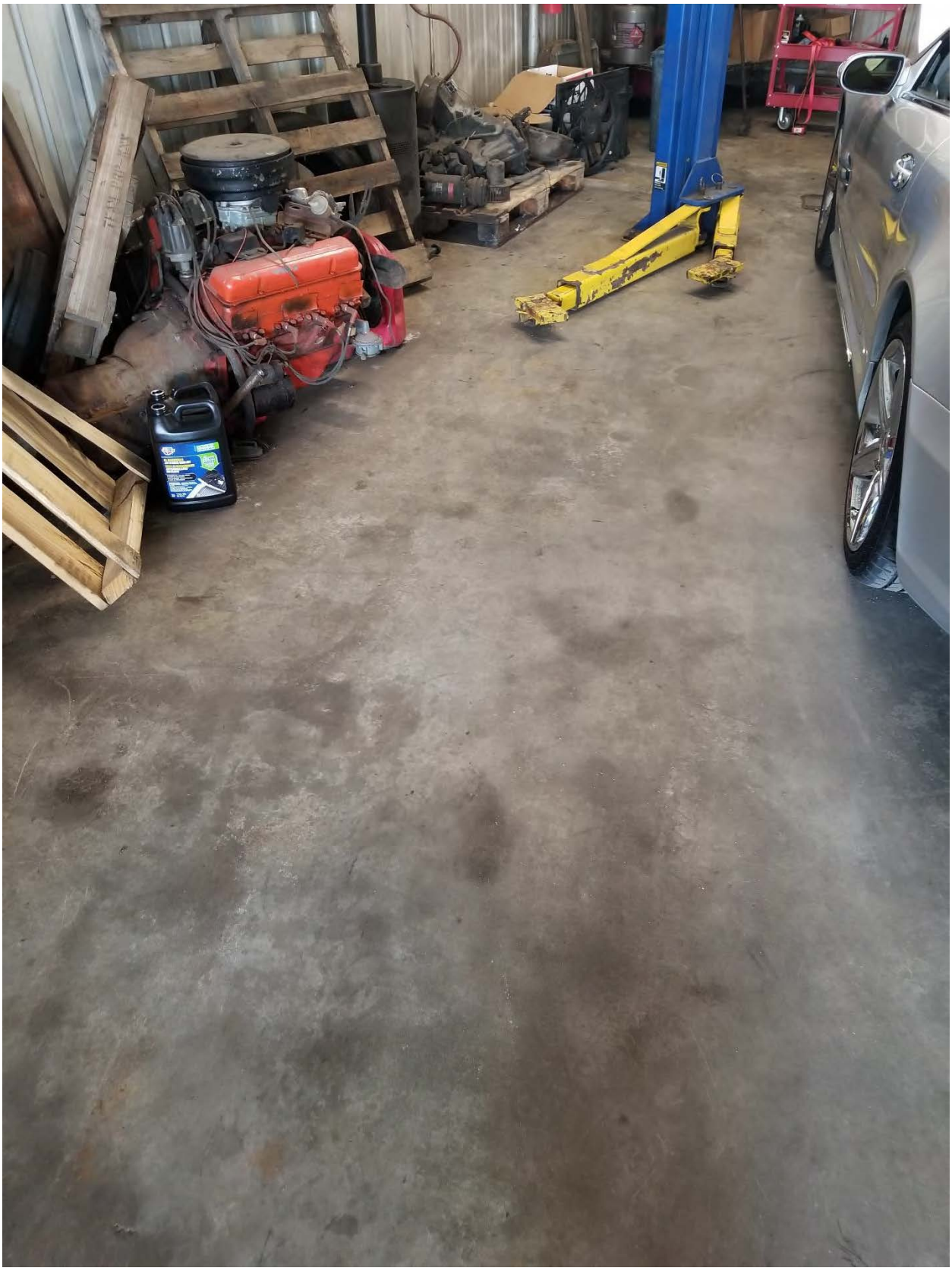
East Jefferson Street/113 Madison Avenue

10 Tallapoosa Street

10 Tallapoosa Street

401 Monroe Street

401 Monroe Street



317 North Decatur Street

317 North Decatur Street

317 North Decatur Street

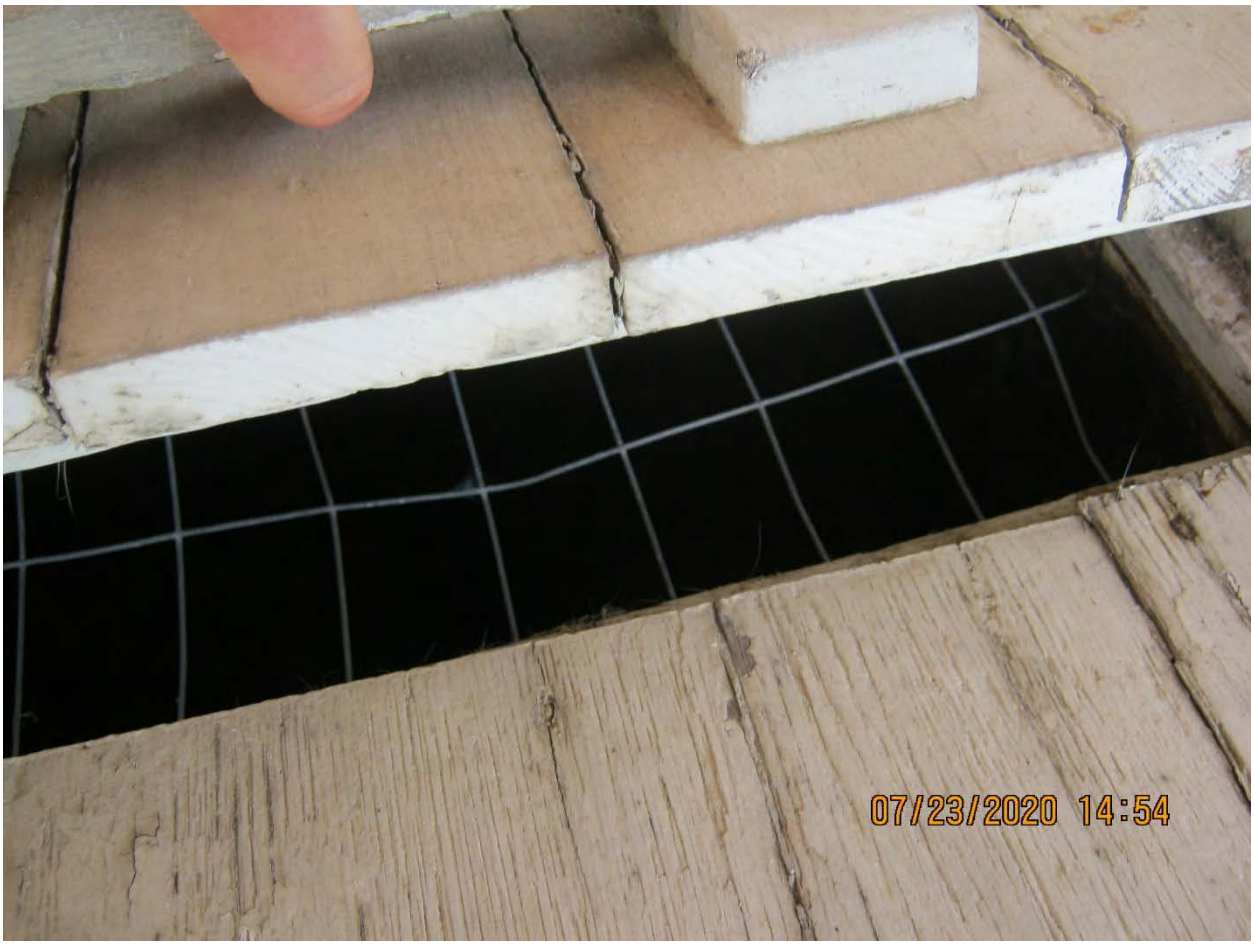
230 North Hull Street

230 North Hull Street

230 North Hull Street

230 North Hull Street

230 North Hull Street – Historical Bucket Well



230 North Hull Street – Historical Bucket Well Grate and Wood Cover

230 North Hull Street

230 North Hull Street

Historical Pump Well

434 North McDonough Street

434 North McDonough Street

434 North McDonough Street

434 North McDonough Street

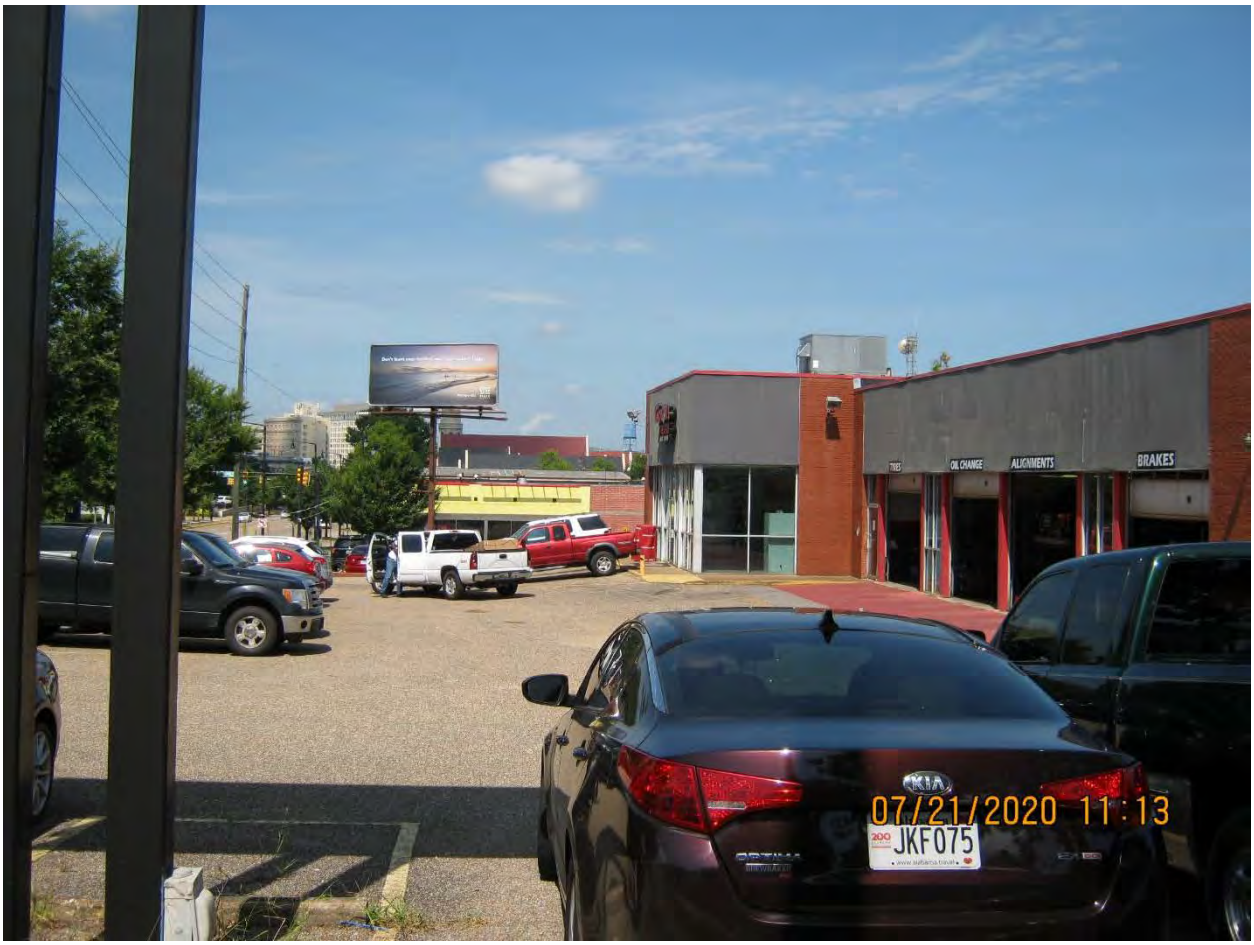
434 North McDonough Street

615 North Perry Street

615 North Perry Street

300 Block Madison

300 Block Madison



300 Block Madison

300 Block Madison

300 Block Madison

North Lawrence Street (Parcel Number 10 03 07 2 203 014.000)

North Lawrence Street (Parcel Number 10 03 07 2 203 014.000)

Washington Avenue Right of Way

Washington Avenue Right of Way

Appendix E
Site Inspection and Interview Records

INTERVIEW RECORD

Site Name: Montgomery Downtown Environmental Assessment Project			
Subject: Air B+B Property		Time:	Date:
Type: ~~Telephone~~ _ Visit _ Other Location of Visit:		_ Incoming _ ~~Outgoing~~	
Contact Made By:			
Name: Glen Davis	Title: PM	Organization: Jacobs	
Individual Contacted:			
Name: Cassandra Crosby	Title: Owner	Organization: —	
Telephone No: 334-669-2719 Fax No: — E-Mail Address: Crosby40@gmail.com		Street Address: 308 Lawrence Street City, State, Zip: Montgomery AL	

Summary of Conversation (Refer to Questions in Annual Inspection Checklist)

- Air B+B
- City Water (No Wells)
- Inspection Posibly Tuesday. She will Confirm + let me know
- Any Plans to sell Property?
- EC Program?

Davis, Glendon/MGM

From: Cassandra Crosby <crosby40@gmail.com>
Sent: Wednesday, November 4, 2020 6:51 AM
To: Davis, Glendon/MGM
Subject: Re: [EXTERNAL] Re: Inspection of Property at 308 N. Lawrence Street

Follow Up Flag: Follow up
Flag Status: Flagged

Outside pictures are fine
Answer your questions
1- basement I used for storage only
2-as far as I know
3-still in discussion

Cassandra Crosby, Partner
Crosby Drinkard Group
334-669-2719

On Nov 3, 2020, at 2:53 PM, Davis, Glendon/MGM <Glendon.Davis@jacobs.com> wrote:

Hello Ms. Crosby,

I wanted to check back with you about the questions below regarding the AirBnB property on North Lawrence Street. Can you respond to these questions and email me back the answers? If it would be better to discuss these, I can give you a call as well.

Thanks,

Glen S. Davis, P.E.* | Jacobs | Project Manager
O:+01.334.215.9016 | M:+01.334.202.6053 | glendon.davis@jacobs.com
4121 Carmichael Road; Suite 400 | Montgomery, AL 36106 | USA
* Professional Engineer - Alabama and Florida

From: Davis, Glendon/MGM
Sent: Thursday, October 22, 2020 10:48 AM
To: Cassandra Crosby <crosby40@gmail.com>
Subject: RE: [EXTERNAL] Re: Inspection of Property at 308 N. Lawrence Street
Importance: High

Thank you Ms. Crosby,

I understand that scheduling can be difficult. Since the property was identified on our list, we would still like to include it on this year's inspection/interview list. Would it be OK if we just took some photos of the outside of the building? Also, could you provide answers to the following questions:

- Is the basement of the building still used for storage (as I think you had stated previously)?
- Do you know if the building was built with a vapor or moisture barrier?
- Is the property still being sold? If so, can you disclose who the new property owner will be?

Thank you,

Glen S. Davis, P.E.* | Jacobs | Project Manager
O:+01.334.215.9016 | M:+01.334.202.6053 | glendon.davis@jacobs.com
4121 Carmichael Road; Suite 400 | Montgomery, AL 36106 | USA
* Professional Engineer - Alabama and Florida

From: Cassandra Crosby <crosby40@gmail.com>
Sent: Thursday, October 22, 2020 10:33 AM
To: Davis, Glendon/MGM <Glendon.Davis@jacobs.com>
Subject: Re: [EXTERNAL] Re: Inspection of Property at 308 N. Lawrence Street

Glen, my scheduling is so up in the air, very unpredictable and I really don't feel comfortable trying to schedule and having to reschedule..

If it's in your better interest due to time, I'm ok with you moving on to another location..

Thanks

Cassandra Crosby, Partner
Crosby Drinkard Group
334-669-2719

> On Oct 22, 2020, at 8:24 AM, Davis, Glendon/MGM <Glendon.Davis@jacobs.com> wrote:
>
> Hello Ms. Crosby,
>
> I just wanted to touch base with you again regarding the site inspection for the Air B&B located on North Lawrence Street (see the attached formal request attached). I was wondering if we might could schedule it for some time in either late October or early November. Please check your schedule and let me know if that might be possible.
>
> Thank you,
>
> **Glen S. Davis, P.E.*** | Jacobs | Project Manager
> O:+01.334.215.9016 | M:+01.334.202.6053 | glendon.davis@jacobs.com
> 4121 Carmichael Road; Suite 400 | Montgomery, AL 36106 | USA
> * Professional Engineer - Alabama and Florida
>
> **From:** Cassandra Crosby <crosby40@gmail.com>
> **Sent:** Wednesday, July 15, 2020 11:30 AM

To: Davis, Glendon/MGM <Glendon.Davis@jacobs.com>
Subject: [EXTERNAL] Re: Inspection of Property at 308 N. Lawrence Street

Hey Glen! Good speaking with you this morning..

Please send me information regarding the inspection that specifies the reasoning and the specific outcome in memo form on letterhead..

Thank you.

Cassandra Crosby, Partner
Crosby Drinkard Group
334-669-2719

> On Jul 15, 2020, at 11:06 AM, Davis, Glendon/MGM <Glendon.Davis@jacobs.com> wrote:
>
> Hello Ms. Crosby,
>
> Per our phone conversation this morning, please let me know if there is a time on Tuesday (July 21, 2020) for a quick inspection of the Property at 308 N. Lawrence Street. The inspection should only take about 30 minutes.
>
> Thank you,
>
> **Glen S. Davis, P.E.*** | Jacobs | Project Manager
> O:+01.334.215.9016 | M:+01.334.202.6053 | glendon.davis@jacobs.com
> 4121 Carmichael Road; Suite 400 | Montgomery, AL 36106 | USA
> * Professional Engineer - Alabama and Florida
>
> ---
>
>

INTERVIEW RECORD

Site Name: Montgomery Downtown Environmental Assessment Project		
Subject: Capital Trailways	Time: 2pm	Date: 8/13/20
Type: _ Telephone ✓ Visit _ Other Location of Visit:	✓ Incoming _ Outgoing	

Contact Made By:

Name: Glen Davis	Title: PM	Organization: Jacobs

Individual Contacted:

Name: Michael Finley	Title:	Organization: Cap. Trans.
Telephone No: 334-391-2105 Fax No: E-Mail Address: jmf@capitaltrailways.com	Street Address: 520 N. Court Street City, State, Zip: Montgomery AL	

Summary of Conversation (Refer to Questions in Annual Inspection Checklist)

- No Private wells onsite
- No Basements (Maintenance Pits in Shop area)
- Old wells is capped + Plugged w/ about 6 feet of concrete.
- No plans to sell, but maybe interested in EC

Institutional Controls Annual Inspection Checklist

INSPECTION DATE:

INSPECTOR NAME:

INSPECTION ADDRESS: Capital Trailways 520 N. Court Street Montgomery, AL

INSPECTOR CERTIFICATION

This is to certify that the 2020 annual institutional controls inspections on ~~XX/XX/XX~~ 8/13/20 was conducted by ~~XXXXXX XXXXXX~~ Glen Davis

Date:

If the answer to any of the following questions deviates from the prescribed land use restriction, please describe and explain on the attached comment sheet.

Land Use Restriction	Inspection
Site-wide Groundwater Use Restriction: Based on the Institutional Control Plan (ICP), there is a restriction on the use of shallow groundwater within the Downtown Environmental Assessment Project (DEAP) Land Use Restriction Areas. There is also a 2002 City ordinance that prohibits the installation of groundwater wells within a similar boundary and a 2019 amendment to the Ordinance prohibits the use of any existing well. Figure 3-1 of the ICP depicts the DEAP Land Use Restriction Areas.	1. Has intrusive work been completed on the subject property that would potentially encounter groundwater? (Yes) No Unknown 2. If yes, is there an operable groundwater well located on the subject property? Yes (No) Unknown 3. If yes, was the well installed prior to the 2002 City Ordinance banning well installations, and is documentation of installation available? (Yes) No Unknown 4. Provide the date that the property owner plans to decommission and abandon the well (See Interview Documentation). Well abandoned in

Land Use Restriction	Inspection
First-Floor Residential Restriction (North 300 Block of Madison Ave.): Based on the ICP, the City has passed an ordinance that restricts this block from first-floor residential use (including schools and daycare facilities). **Figure 3-1 of the ICP** depicts the DEAP Land Use Restriction Areas.	1. Is the subject property located in the North 300 Block of Madison Avenue? Yes No 2. If yes, are there any structures on the subject property that would be considered a first-floor residence, school, or daycare: Yes No Unknown 3. If, yes, is the property owner aware that there is a City Ordinance prohibiting first-floor residential, school, or day-care land use on this block (See Interview Documentation)? Yes No Unknown
Environmental Covenant (EC) at North Lawrence Street: Based on the ICP, the City has placed an EC on their property that states that it will remain a parking only.	1. Is the subject property still used for parking only? Yes No 2. If No, has the City sold the property or has the EC been modified to allow property use other than parking? Yes No
Environmental Covenant (EC) at Washington Street Right-of-Way (ROW): Based on the ICP, the City has placed an EC on the northern ROW that states that this property will remain public ROW.	1. Is the subject property still a public ROW? Yes No 2. If No, has the City sold the property or has the EC been modified to allow alternative property use? Yes No
Voluntary Environmental Covenant (EC) Review: Based on the ICP, voluntary ECs are offered to property owners with in the DEAP Land Use Restriction Areas.	1. Have any Voluntary ECs been filed since the last annual insopection? Yes (No) 2. If yes, please list the property(ies) and the restrictions on the attached comment sheet (indicate if the site-specific restrictions are not being maintained):

INTERVIEW RECORD

Site Name: Montgomery Downtown Environmental Assessment Project		
Subject: Dennis Miller Welding Supplies	**Time:**	**Date:** 7/30/20
Type: ~~Telephone~~ _ Visit _ Other **Location of Visit:**	_ Incoming	~~Outgoing~~

Contact Made By:

Name: Glen Davis	**Title:** Proj. Manager	**Organization:** Jacobs

Individual Contacted:

Name: Ricky Dennis	**Title:** Owner	**Organization:** DMWS

Telephone No: 264-6444 **Fax No:** **E-Mail Address:**	**Street Address:** **City, State, Zip:**

Summary of Conversation (Refer to Questions in Annual Inspection Checklist)

- No Private Wells on property
- Building has no basement
- No plans to sell property at this time

Institutional Controls Annual Inspection Checklist

INSPECTION DATE:

INSPECTOR NAME:

INSPECTION ADDRESS: Dennis Miller Welding Supply Co N. Peoria Street

INSPECTOR CERTIFICATION

This is to certify that the 2020 annual institutional controls inspections on ~~XX/XX/XX~~ 7/23/20 was conducted by ~~XXXXXX XXXXXX~~ Glen Davis

Date:

If the answer to any of the following questions deviates from the prescribed land use restriction, please describe and explain on the attached comment sheet.

Land Use Restriction	Inspection
Site-wide Groundwater Use Restriction: Based on the Institutional Control Plan (ICP), there is a restriction on the use of shallow groundwater within the Downtown Environmental Assessment Project (DEAP) Land Use Restriction Areas. There is also a 2002 City ordinance that prohibits the installation of groundwater wells within a similar boundary and a 2019 amendment to the Ordinance prohibits the use of any existing well. Figure 3-1 of the ICP depicts the DEAP Land Use Restriction Areas.	1. Has intrusive work been completed on the subject property that would potentially encounter groundwater? Yes (No) Unknown 2. If yes, is there an operable groundwater well located on the subject property? Yes (No) Unknown 3. If yes, was the well installed prior to the 2002 City Ordinance banning well installations, and is documentation of installation available? Yes No Unknown 4. Provide the date that the property owner plans to decommission and abandon the well (See Interview Documentation). - No Wells on site - Building on ≈ 3 feet Slab.

Institutional Controls Annual Inspection Checklist

INSPECTION DATE: 7/21/20

INSPECTOR NAME: Glen Davis

INSPECTION ADDRESS: Episcopal Church Parking E Jefferson Street

INSPECTOR CERTIFICATION

This is to certify that the 2020 annual institutional controls inspections on ~~XX/XX/XX~~ 7/21/20 was conducted by ~~XXXXXX XXXXXX~~ Glen Davis

Date:

If the answer to any of the following questions deviates from the prescribed land use restriction, please describe and explain on the attached comment sheet.

Land Use Restriction	Inspection
Site-wide Groundwater Use Restriction: Based on the Institutional Control Plan (ICP), there is a restriction on the use of shallow groundwater within the Downtown Environmental Assessment Project (DEAP) Land Use Restriction Areas. There is also a 2002 City ordinance that prohibits the installation of groundwater wells within a similar boundary and a 2019 amendment to the Ordinance prohibits the use of any existing well. Figure 3-1 of the ICP depicts the DEAP Land Use Restriction Areas.	1. Has intrusive work been completed on the subject property that would potentially encounter groundwater? Yes (No) Unknown 2. If yes, is there an operable groundwater well located on the subject property? Yes (No) Unknown 3. If yes, was the well installed prior to the 2002 City Ordinance banning well installations, and is documentation of installation available? Yes No Unknown 4. Provide the date that the property owner plans to decommission and abandon the well (See Interview Documentation). - Lot is Parking for Church - No Private Wells observed - No Buildings on property

Institutional Controls Annual Inspection Checklist

INSPECTION DATE: 7/21/20

INSPECTOR NAME: Glen Davis

INSPECTION ADDRESS: Earthlink Building Tallapoosa + N. Court St

INSPECTOR CERTIFICATION

This is to certify that the 2020 annual institutional controls inspections on ~~XX/XX/XX~~ 7/21/20 was conducted by ~~XXXXX XXXXX~~ Glen Davis

Date:

If the answer to any of the following questions deviates from the prescribed land use restriction, please describe and explain on the attached comment sheet.

Land Use Restriction	Inspection
Site-wide Groundwater Use Restriction: Based on the Institutional Control Plan (ICP), there is a restriction on the use of shallow groundwater within the Downtown Environmental Assessment Project (DEAP) Land Use Restriction Areas. There is also a 2002 City ordinance that prohibits the installation of groundwater wells within a similar boundary and a 2019 amendment to the Ordinance prohibits the use of any existing well. Figure 3-1 of the ICP depicts the DEAP Land Use Restriction Areas.	1. Has intrusive work been completed on the subject property that would potentially encounter groundwater? Yes (No) Unknown 2. If yes, is there an operable groundwater well located on the subject property? Yes (No) Unknown 3. If yes, was the well installed prior to the 2002 City Ordinance banning well installations, and is documentation of installation available? Yes No Unknown 4. Provide the date that the property owner plans to decommission and abandon the well (See Interview Documentation). - No private wells observed - Building does not appear to have a basement

Institutional Controls Annual Inspection Checklist

INSPECTION DATE: 7/21/20 **INSPECTION ADDRESS:** Max Credit Union 401 Monroe St.

INSPECTOR NAME: Glen Davis

INSPECTOR CERTIFICATION

This is to certify that the 2020 annual institutional controls inspections on ~~XX/XX/XX~~ 7/21/20 was conducted by ~~XXXXXX XXXXXX~~ Glen Davis

Date:

If the answer to any of the following questions deviates from the prescribed land use restriction, please describe and explain on the attached comment sheet.

Land Use Restriction	Inspection
Site-wide Groundwater Use Restriction: Based on the Institutional Control Plan (ICP), there is a restriction on the use of shallow groundwater within the Downtown Environmental Assessment Project (DEAP) Land Use Restriction Areas. There is also a 2002 City ordinance that prohibits the installation of groundwater wells within a similar boundary and a 2019 amendment to the Ordinance prohibits the use of any existing well. Figure 3-1 of the ICP depicts the DEAP Land Use Restriction Areas.	1. Has intrusive work been completed on the subject property that would potentially encounter groundwater? Yes (No) Unknown 2. If yes, is there an operable groundwater well located on the subject property? Yes (No) Unknown 3. If yes, was the well installed prior to the 2002 City Ordinance banning well installations, and is documentation of installation available? Yes No Unknown 4. Provide the date that the property owner plans to decommission and abandon the well (See Interview Documentation). --- - No Private Wells observed - Building does not appear to have a basement.

CH2MHILL

TELEPHONE CONVERSATION RECORD

CALL TO Joe McClendon (317 N. Decatur St.)

PHONE NO. 334-269-0017

DATE 12/~~20~~23/19

CALL FROM Glen Davis

TIME 11:45 ☑ AM ☐ PM

MESSAGE TAKEN BY

PROJECT NO. 666378CH.

SUBJECT Montgomery DEAP IC Notice + ECs

- There was a well on site, but closed
  - → sealed with 1" steel plate (thick)
  - → Closed in ~~80~~ late 1980s
  - → 3 foot Concrete on top
  - → About 2ft ø
- Very environmentally friendly
  - → Floors cleaned weekly
- Performed testing when purchased

- Well was closed with EPA oversight.

- "Vapor Barrier" installed when well was abandon? When 3-ft Concrete was placed.

- Interested in EC + has started filling out paperwork.

- 22 years - 1998
- Mike Taylor / MTS Construction = Former Owner
  - → Closed well
- May sell to Partner - Remain Auto Shop
- City water
- joemcc@kndogey.net. - EC Info

INTERVIEW RECORD

Site Name: Montgomery Downtown Environmental Assessment Project			
Subject: Joe Mclendon Service Center		**Time:**	**Date:** 7/15/20
Type: ~~Telephone~~ _ Visit _ Other **Location of Visit:**		_ Incoming ~~Outgoing~~	
Contact Made By:			
Name: Glen Davis	**Title:** PM	**Organization:** Jacobs	
Individual Contacted:			
Name: Joe Mclendon	**Title:** Owner	**Organization:** See Above	
Telephone No: 334-269-0017 **Fax No:** _ **E-Mail Address:**		**Street Address:** 317 N. Decatur St **City, State, Zip:** Montgomery AL 36	

Summary of Conversation (Refer to Questions in Annual Inspection Checklist)

- See Summary from 12/23/19
- Tuesday @ 10am for inspection
- No More effort for ECs. (Too Busy)

Institutional Controls Annual Inspection Checklist

INSPECTION DATE: 7/21/20

INSPECTOR NAME: Glen Davis

INSPECTION ADDRESS: McLendon's Auto Repair
317 N. Decatur Street
Montgomery AL

INSPECTOR CERTIFICATION

This is to certify that the 2020 annual institutional controls inspections on ~~XX/XX/XX~~ 7/21/20 was conducted by ~~XXXXX XXXXX~~ Glen Davis

Date:

If the answer to any of the following questions deviates from the prescribed land use restriction, please describe and explain on the attached comment sheet.

Land Use Restriction	Inspection
Site-wide Groundwater Use Restriction: Based on the Institutional Control Plan (ICP), there is a restriction on the use of shallow groundwater within the Downtown Environmental Assessment Project (DEAP) Land Use Restriction Areas. There is also a 2002 City ordinance that prohibits the installation of groundwater wells within a similar boundary and a 2019 amendment to the Ordinance prohibits the use of any existing well. Figure 3-1 of the ICP depicts the DEAP Land Use Restriction Areas.	1. Has intrusive work been completed on the subject property that would potentially encounter groundwater? (Yes) No Unknown 2. If yes, is there an operable groundwater well located on the subject property? Yes (No) Unknown 3. If yes, was the well installed prior to the 2002 City Ordinance banning well installations, and is documentation of installation available? (Yes) No Unknown 4. Provide the date that the property owner plans to decommission and abandon the well (See Interview Documentation). Late 1990's See Interview Notes Regarding former Well

Land Use Restriction	Inspection
First-Floor Residential Restriction (North 300 Block of Madison Ave.): Based on the ICP, the City has passed an ordinance that restricts this block from first-floor residential use (including schools and daycare facilities). **Figure 3-1 of the ICP** depicts the DEAP Land Use Restriction Areas.	1. Is the subject property located in the North 300 Block of Madison Avenue? (Yes) (No) 2. If yes, are there any structures on the subject property that would be considered a first-floor residence, school, or daycare: Yes (No) Unknown 3. If, yes, is the property owner aware that there is a City Ordinance prohibiting first-floor residential, school, or day-care land use on this block (See Interview Documentation)? Yes No Unknown
Environmental Covenant (EC) at North Lawrence Street: Based on the ICP, the City has placed an EC on their property that states that it will remain a parking only.	1. Is the subject property still used for parking only? (Yes) No 2. If No, has the City sold the property or has the EC been modified to allow property use other than parking? Yes No
Environmental Covenant (EC) at Washington Street Right-of-Way (ROW): Based on the ICP, the City has placed an EC on the northern ROW that states that this property will remain public ROW.	1. Is the subject property still a public ROW? (Yes) No 2. If No, has the City sold the property or has the EC been modified to allow alternative property use? Yes No
Voluntary Environmental Covenant (EC) Review: Based on the ICP, voluntary ECs are offered to property owners with in the DEAP Land Use Restriction Areas.	1. Have any Voluntary ECs been filed since the last annual insopection? Yes (No) 2. If yes, please list the property(ies) and the restrictions on the attached comment sheet (indicate if the site-specific restrictions are not being maintained):

INTERVIEW RECORD

Site Name: Montgomery Downtown Environmental Assessment Project		
Subject: Landmark Foundation		**Time:** 7/14/20 **Date:** 2:30pm
Type: ✓ Telephone _ Visit _ Other **Location of Visit:**		_ Incoming _ Outgoing
Contact Made By: Glen Davis		
Name:	**Title:** PM	**Organization:** Jacobs
Individual Contacted:		
Name: Collier Neely	**Title:**	**Organization:** Landmark Foun
Telephone No: **Fax No:** **E-Mail Address:**	**Street Address:** **City, State, Zip:**	

Summary of Conversation (Refer to Questions in Annual Inspection Checklist)

- Orderman house has dcl well but not in use (bucket well) - Sealed?
- Office use
- Basements - artifact storage + museum space (dinning area set up - No consistent occupants
- Mortion - Office - Jerry Miller Catering
- No Plans to Sell
- Museum Thurs - Sat [Afternoon 7/23/20]
- Both Properties on City Water

INTERVIEW RECORD

Site Name: Montgomery Downtown Environmental Assessment Project		
Subject: Oderman / Molton House Inspection	**Time:** 7/23/20	**Date:** 2:00
Type: _ Telephone ✓ Visit _ Other **Location of Visit:** Old Alabama Town	_ Incoming _ Outgoing	

Contact Made By:

Name: Colier Neely	**Title:** Ex. Director	**Organization:** Landmark Foundation

Individual Contacted:

Name: Glen Davis	**Title:** Project Manager	**Organization:** Jacobs
Telephone No: **Fax No:** **E-Mail Address:**	**Street Address:** **City, State, Zip:**	

Summary of Conversation (Refer to Questions in Annual Inspection Checklist)

Orderman House
- Well on site (Locked Gate; Closed & Screened)
- Chalk Base under Basement 1880s
- Rain water seeps into Basement.
- 20kl well Pump on other Property
  - ↳ one is chained & one should be (CN to get Picture)

Molton House
- No Wells on site
- Partial Basement used for Storage
- Top used as office space for Jenny Molton Catering

Institutional Controls Annual Inspection Checklist

INSPECTION DATE: 7/23/20

INSPECTION ADDRESS: Orderman House 230 N. Hull Street

INSPECTOR NAME: Glen Davis

INSPECTOR CERTIFICATION

This is to certify that the 2020 annual institutional controls inspections on ~~XXXXXX~~ was conducted by ~~XXXXX XXXXXX~~

Date:

If the answer to any of the following questions deviates from the prescribed land use restriction, please describe and explain on the attached comment sheet.

Land Use Restriction	Inspection
Site-wide Groundwater Use Restriction: Based on the Institutional Control Plan (ICP), there is a restriction on the use of shallow groundwater within the Downtown Environmental Assessment Project (DEAP) Land Use Restriction Areas. There is also a 2002 City ordinance that prohibits the installation of groundwater wells within a similar boundary and a 2019 amendment to the Ordinance prohibits the use of any existing well. Figure 3-1 of the ICP depicts the DEAP Land Use Restriction Areas.	1. Has intrusive work been completed on the subject property that would potentially encounter groundwater? (Yes) No Unknown 2. If yes, is there an operable groundwater well located on the subject property? (Yes) No Unknown 3. If yes, was the well installed prior to the 2002 City Ordinance banning well installations, and is documentation of installation available? (Yes) No Unknown 4. Provide the date that the property owner plans to decommission and abandon the well (See Interview Documentation). Well is behind a locked Gate & is covered by a Warden cover & screen. Historical well with no use.

Institutional Controls Annual Inspection Checklist

INSPECTION DATE: 7/23/20

INSPECTION ADDRESS: Molton House N. Mc Daughan Street

INSPECTOR NAME: Glen Davis

INSPECTOR CERTIFICATION

This is to certify that the 2020 annual institutional controls inspections on ~~XX/XX/XX~~ was conducted by ~~XXXXX XXXXX~~

Date:

If the answer to any of the following questions deviates from the prescribed land use restriction, please describe and explain on the attached comment sheet.

Land Use Restriction	Inspection
Site-wide Groundwater Use Restriction: Based on the Institutional Control Plan (ICP), there is a restriction on the use of shallow groundwater within the Downtown Environmental Assessment Project (DEAP) Land Use Restriction Areas. There is also a 2002 City ordinance that prohibits the installation of groundwater wells within a similar boundary and a 2019 amendment to the Ordinance prohibits the use of any existing well. Figure 3-1 of the ICP depicts the DEAP Land Use Restriction Areas.	1. Has intrusive work been completed on the subject property that would potentially encounter groundwater? Yes (No) Unknown 2. If yes, is there an operable groundwater well located on the subject property? Yes (No) Unknown 3. If yes, was the well installed prior to the 2002 City Ordinance banning well installations, and is documentation of installation available? Yes No Unknown 4. Provide the date that the property owner plans to decommission and abandon the well (See Interview Documentation). - Building has partial basement used for Storage

Institutional Controls Annual Inspection Checklist

INSPECTION DATE: 7/21/20

INSPECTION ADDRESS: Sabel Steel
615 N. Perry Street

INSPECTOR NAME: Glen Davis

INSPECTOR CERTIFICATION

This is to certify that the 2020 annual institutional controls inspections on ~~XXXXXX~~ 7/21/20 was conducted by ~~XXXXXX XXXXXX~~ Glen Davis

Date:

If the answer to any of the following questions deviates from the prescribed land use restriction, please describe and explain on the attached comment sheet.

Land Use Restriction	Inspection
Site-wide Groundwater Use Restriction: Based on the Institutional Control Plan (ICP), there is a restriction on the use of shallow groundwater within the Downtown Environmental Assessment Project (DEAP) Land Use Restriction Areas. There is also a 2002 City ordinance that prohibits the installation of groundwater wells within a similar boundary and a 2019 amendment to the Ordinance prohibits the use of any existing well. Figure 3-1 of the ICP depicts the DEAP Land Use Restriction Areas.	1. Has intrusive work been completed on the subject property that would potentially encounter groundwater? Yes (No) Unknown 2. If yes, is there an operable groundwater well located on the subject property? Yes (No) Unknown 3. If yes, was the well installed prior to the 2002 City Ordinance banning well installations, and is documentation of installation available? Yes No Unknown 4. Provide the date that the property owner plans to decommission and abandon the well (See Interview Documentation). - Appears to be Trailer Parking - No Private Wells observed - Building does not appear to have basement.

Appendix F
Environmental Covenants and Example Notification Letter

STATE OF ALABAMA)
MONTGOMERY COUNTY)

ENVIRONMENTAL COVENANT

KNOW ALL MEN BY THESE PRESENTS: That pursuant to the Alabama Uniform Environmental Covenants Act, §§ 35-19-1 through 35-19-14, Code of Alabama 1975, as amended, (the "Act") and the ADEM Administrative Code of Regulations promulgated thereunder,

Joe McClendon a/k/a Joseph Earl McClen

(hereinafter "Grantor") grants this Environmental Covenant, which constitutes a servitude arising under an environmental response project that imposes activity and/or use limitations, to the following:

Joe McClendon a/k/a Joseph Earl McClen

(hereinafter "Grantee" or "Holder"), to-wit:

WHEREAS, the Grantor is the owner of certain real property known as City of Montgomery, located at 317 North Decatur Street, in the City of Montgomery, Montgomery County, Alabama (the "Property"), which was conveyed to Grantor by deed dated September 20, 2010 (or see attachment) and recorded in the Office of the Judge of Probate for said County, Alabama, in Deed Book 4078 at Page 870; and,

WHEREAS, the Property is more particularly described as follows:

Property Legal Description is attached

WHEREAS, the Grantor is aware that the soil vapor and/or groundwater beneath the Property is now or may in the future be included in or near the Capital City Plume Site area, an area in the City of Montgomery that has indicated contamination by tetrachloroethene ("PCE") in groundwater/soil vapor and/or trichloroethene ("TCE") in soil vapor only; and

WHEREAS, the purpose of this Covenant is to ensure protection of human health and the environment by placing restrictions on the Property; and

WHEREAS, Grantor knows and understands that it does not own the groundwater beneath the Property, but has the right to a reasonable use thereof; and

WHEREAS, further information concerning the Capital Plume Site may be obtained by contacting:

Chief, Land Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110
(334) 271-7700

NOW, THEREFORE, Grantor hereby grants this Environment Covenant to the named Holder, and declares that the Property shall hereinafter be bound by, held, sold, used, improved, occupied, leased, hypothecated, encumbered, and/or conveyed subject to the requirements set forth below:

1. **DEFINITIONS**

"Grantor" means owner of the Property, its successors and assigns in interest.

2. **USE RESTRICTIONS**

The use of, access of, interference with, and/or consumption of the groundwater beneath the Property is hereby forever in perpetuity prohibited without the prior written approval from ADEM.

3. **GENERAL PROVISIONS**

A. Restrictions to Run with the Land. This Environmental Covenant runs with the land pursuant to §35-19-5, Code of Alabama 1975, as amended; is perpetual unless modified or terminated pursuant to the terms of this Covenant or §35-19-9, Code of Alabama 1975, as amended, is imposed upon the entire Property unless expressly stated as applicable only to a specific portion thereof; inures to the benefit of and passes with each and every portion of the Property; and binds the Owner, the Holders, all persons using the land, all persons, their heirs, successors and assigns having any right, title or interest in the Property, or any part thereof who have subordinated those interests to this Environmental Covenant, and all persons, their heirs, successors and assigns who obtain any right, title or interest in the Property, or any part thereof after the recordation of this Environmental Covenant.

B. Notices Required. In accordance with §35-19-4(b), Code of Alabama 1975, as amended, the Grantor shall send written notification pursuant to Section "H" below, upon any of the following events affecting the property subject to this covenant: Transfer of any interest, any proposed changes in the use of the property, any applications for building permits, or any proposals for site work that could affect the subsurface areas. Said notification shall be sent within fifteen (15) days of the listed event.

C. Registry/Recordation of Environmental Covenant; Amendment; or Termination. Pursuant to §35-19-12(b), Code of Alabama 1975, as amended, this Environmental Covenant and any amendment or termination thereof, shall be contained in the ADEM Registry of Environmental Covenants. After an environmental covenant, amendment, or termination is filed in the registry, a notice of the covenant, amendment, or termination may be recorded in the land

records in lieu of recording the entire covenant in compliance with §35-19-12(b). Grantor shall be responsible for filing the Environmental Covenant within thirty (30) days of the final required signature.

D. Right of Access. The Owner hereby grants to ADEM and any other named Holder, its agents, contractors and employees, the right of access to the Property for implementation or enforcement of this Environmental Covenant.

E. Representations and Warranties. Grantor hereby represents and warrants as follows:

(i) That the Grantor has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided, and to carry out all obligations hereunder.

(ii) That the Grantor is the sole owner of the Property and holds fee simple title which is free, clear and unencumbered; *or* the Grantor has identified all other parties that hold any interest or encumbrance affecting the Property and has notified such parties of the Grantor's intention to enter into this Environmental Covenant.

(iii) That this Environmental Covenant will not materially violate, contravene, or constitute a material default under, any other agreement, document, or instrument to which Grantor is a party, by which Grantor may be bound or affected;

(iv) That this Environmental Covenant will not materially violate or contravene any zoning law or other law regulating use of the Property;

(v) That this Environmental Covenant does not authorize a use of the Property which is otherwise prohibited by a recorded instrument that has priority over the Environmental Covenant.

F. Compliance Enforcement. In accordance with §35-19-11(b), Code of Alabama 1975, as amended, the terms of the Environmental Covenant may be enforced by the parties to this Environmental Covenant; any person to whom this Covenant expressly grants power to enforce; any person whose interest in the real property or whose collateral or liability may be affected by the alleged violation of the Covenant; or a municipality or other unit of local government in which the real property subject to the Covenant is located, in accordance with applicable law. Failure to timely enforce compliance with this Environmental Covenant or the use or activity limitations contained herein by any person shall not bar subsequent enforcement by such person and shall not be deemed a waiver of the person's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall limit the regulatory authority of ADEM under any applicable law with respect to the environmental response project.

G. Modifications/Termination. Any modifications or terminations to this Environmental Covenant must be made in accordance with §§ 35-19-9 and 35-19-10, Code of Alabama 1975, as amended.

H. Notices. Any document or communication required to be sent pursuant to the terms of this Environmental Covenant shall be sent to the following persons:

ADEM
Chief, Land Division
A.D.E.M.
1400 Coliseum Boulevard
Montgomery, AL 36110

GRANTOR
Joseph Earl McClendon
317 North Decatur Street
Montgomery, AL 36104

I. No Property Interest Created in ADEM. Pursuant to §35-19-3(b), Code of Alabama 1975, as amended, the rights of ADEM under the Act or under this Environmental Covenant, other than a right as a holder, is not an interest in the real property subject to the covenant, nor does the approval by ADEM of this Environmental Covenant create any interest in the real property.

J. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

K. Governing Law. This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the State of Alabama.

L. Recordation. In accordance with §35-19-8(a), Code of Alabama 1975, as amended, Grantor shall have this Environmental Covenant, and any amendment or termination thereof, recorded in Montgomery County, Alabama within fifteen (15) days after the date of the final required signature.

M. Effective Date. The effective date of this Environmental Covenant shall be the date the fully executed Environmental Covenant is recorded in accordance with Paragraph "L" above.

N. Distribution of Environmental Covenant. In accordance with §35-19-7, Code of Alabama 1975, the Grantor shall, within fifteen (15) days of filing this Environmental Covenant, have a recorded and date stamped copy of same distributed to each of the following: (1) Each person who signed the covenant; (2) Each person holding a recorded interest in the property; (3) Each person in possession of the property; (4) Each municipality or other unit of local government in which the property is located; and (5) Any other person required by ADEM to receive a copy of the covenant. However, the validity of this Environmental Covenant will not be affected by the failure to provide a copy of the Covenant as herein provided.

O. Party References. All references to ADEM, the Grantor, or other applicable parties, shall include successor agencies, departments, divisions, heirs, executors and/or administrators.

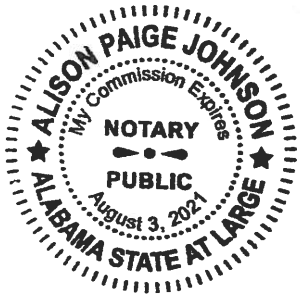
IN WITNESS WHEREOF, I have hereunto set my hand and seal on this the 12 day of October, 2020.

Joseph Earl McClendon
Grantor

STATE OF ALABAMA)
MONTGOMERY COUNTY)

I, THE UNDERSIGNED Notary Public in and for said County and State, hereby certify that JOSEPH EARL MCCLENDON, whose name as Grantor is signed to the foregoing conveyance, and who is known to me, acknowledged before me on this day that, being informed of the contents of the conveyance, he executed the same voluntarily on the day the same bears date.

Given under my hand and official seal this 12TH day of OCTOBER, 2020.



Notary Public

My Commission Expires: 08-03-2021

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

This Environmental Covenant is hereby approved by the State of Alabama, Department of Environmental Management.

Dated 11-18, 2020

By: _____
Chief, Land Division
Alabama Department of Environmental Management

Graci Robinson
Notary
1-30-23
Commission expires

STATE OF ALABAMA)
MONTGOMERY COUNTY)

I hereby certify that the foregoing Environmental Covenant has been recorded in the property records of Montgomery County, Alabama at Deed Book 4078, Page 870.

Dated _____, 2020 By:_____
Clerk, Office of Probate Judge

This instrument was prepared by
Name Cardy McClendon
Address 2538 Aimee Dr.
Montg. 36106

LEAVELL & ASSOCIATES
ATTORNEYS AT LAW, LLC
205 MADISON AVENUE
SUITE A
MONTGOMERY, AL 36104
E-MAIL: bcl@barryleavell.com
FAX: (334) 834-8667
TELEPHONE: (334) 834-8663

April 2, 2013

Amber Redmon
BB&T Direct Retail Lending
Via email: aredmon@bbandt.com

RE: TITLE REPORT
McClendon's Service Center

Dear Amber:

Please be advised that I have researched the records for 60 years through 3/15/13 in the Montgomery County Courthouse relative to-wit:

PARCEL A: That certain lot described as commencing at a point on the W side of North Decatur Street, 139.5' S of Columbus Street, running thence S along the W side of Decatur Street 43' and 3" to a point 125' N of Jefferson Street, thence W 100',more or less, to the W line of Lot 4 in Square 5 of Scott's Plat, as recorded in the Office of the Judge of Probate of Montgomery County, Alabama, in Book (O.S.) "X" at page 800, running thence N along the W line of said Lot 4 and Lot 3 in said Square 5, a distance of 43' and 3", thence E 100', more or less, to the POB; and

PARCEL B: Commence at the NE corner of Lot 3, Block 5, Scott's Plat, as recorded in Old Series Book "X", page 800, Probate Office of Montgomery County, Alabama; thence run S along the E boundary of said lot 100', more or less, to the POB of the tract herein described; thence continue S along the last described course a distance of 39.8' to a point, thence run in a Westerly direction 99.90' to a point which is 139.12' S of the N boundary of said Lot 3, Block 5, Scott's Plat, thence run in a Northerly direction 39.12' to a point which is 100.2' S of the N boundary and also 100.12', W of the E boundary of said Lot 3, Block 5, Scott's Plat, thence run in an Easterly direction 100.12' to the POB; the same being the same property conveyed to Rufus E. Taylor and Joyce R. Taylor by deed dated January 31, 1975, recorded in said Probate Office in Real Property Book 258 at page 218.

Title to the above premises is in the name of **Joe McClendon,** by virtue of a Deed dated the 30th of August, 2006 recorded in RLPY Book 03450 at page

0487 and Corrected Deed to reflect the correct legal description on the 30th day of November, 2007 and recorded on the 30th day of November, 2007, in the Office of the Judge of Probate of Montgomery County, Alabama, in RPLY Book 03677, at Page 0730.

Title is subject to a Mortgage in favor of Regions Bank, executed by **Joe McClendon, a/k/a Joseph Earl McClendon** dated the 6th day of March, 2008, and recorded, in the office of the Judge of Probate of Montgomery County, Alabama, in RPLY Book 3725, at Page 424; Modification of Mortgage on 9/20/10 and recorded in RLPY Book 4078 at Page 870.

The property is assessed for Ad Valorem Taxes in the name of Joe McClendon, and were paid on the 16th day of November, 2012, in the amount of $1,308.16.

The property is identified as Parcel No. 10-03-07-2-204-037.000.

This opinion is subject to the following exceptions:

Any prior reservation or conveyance, together with release of damages, of minerals of every kind and character, including, but not limited to, oil, gas, sand and gravel in, on, and under subject property.

Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.

Encroachments, overlaps, variation in area or measurements, boundary line disputes, roadways and matters not of record, including lack of access, which would be disclosed by an accurate survey and inspection of the property.

Easements or other uses of subject property not visible from the surface, or easements or claims of easements, not shown by the public records.

Rights or claims of parties in possession not shown by public records.

Ad Valorem Tax for the year 2013, which are not due and payable until October 1, and subsequent years.

Yours very truly,

Barry C. Leavell

BCL:ll

STATE OF ALA.MONTGOMERY CO.
I CERTIFY THIS INSTRUMENT WAS FILED ON
RLPY 05502 PG 0881-0889 2020 Dec 14 04:06PM
J C LOVE, III
JUDGE OF PROBATE

INDEX	$5.00
REC FEE	$22.50
CERT	$1.00
NO DEED TAX	
VISA TOTAL	$28.50
388931	Clerk: #107 04:07PM

November XX, 2020

[[PARCEL OWNER NAME]]
[[MAILING ADDRESS]]
Montgomery, AL 36XXX

Subject: Institutional Controls Notification for [[PROPERTY ADDRESS or PARCEL ID?]]
– Downtown Environmental Assessment Project (DEAP)

Dear Property Owner:

On behalf of the Downtown Environmental Alliance[1], this notification letter is being sent to inform you of new City Ordinance 36-2019, Chapter 5, Article III, Section 5-483 of the Code of Ordinances for the City of Montgomery (hereafter referred to as the "Ordinance") that affects the aforementioned property. The new ordinance was prepared by the City of Montgomery in conjunction with the Alabama Department of Environmental Management (ADEM) in compliance with an *Institutional Controls Plan*, which is available for your review at www.capitalcityplume.org.

The new Ordinance was developed based on the results of the Capital City Plume investigation and evaluation. More information related to this project is located at www.capitalcityplume.org**.** Please note that although the Ordinance addresses groundwater use restrictions, it does not affect the City of Montgomery's drinking water**.** Montgomery drinking water comes from other water sources (i.e., the Tallapoosa River and/or well fields in West and South Montgomery) and is safe for you to drink.

The following information outlines how the Ordinance relates to your property:

- **Groundwater Use Restrictions:** Per Section 2 of the Ordinance, it is unlawful to dig any wells *or use any existing wells* on your property. If there is an existing well on your property, you are required to decommission and close it, in accordance with ADEM guidelines. (Guidelines for decommissioning a well are found in Appendix B at http://www.adem.state.al.us/programs/land/landforms/AEIRGInvestigation.pdf.)
- **Construction Requirements:** Per Section 3 of the Ordinance, any new foundations being installed on the property will require installation of a vapor barrier in accordance with the International Building Code and applicable Environmental Protection Agency vapor intrusion guidelines.
- **First Floor Residential Use Restriction (North 300 Block of Madison Avenue):** Section 4 of the Ordinance applies to a single city block bounded by Madison Avenue on the south, East Jefferson Street on the north, North Hull Street on the east and North McDonough Street on the west. Parcels within this block are prohibited from constructing or maintaining first-floor residences, schools, or daycare facilities.

[1] The Downtown Environmental Alliance consists of the City of Montgomery, Montgomery County Commission, Montgomery Advertiser, The Montgomery Water Works and Sanitary Sewer Board, the Alabama Law Enforcement Agency, the Alabama Department of Education, the Alabama Community College System, and the Alabama Department of Transportation.

We encourage you to review the information at www.capitalcityplume.org.

By receipt of this notification letter, your property is eligible for a voluntary environmental covenant. You are encouraged to place a voluntary environmental covenant on your property to provide notice of the Ordinance to subsequent property owners. By using this voluntary covenant, the normal ADEM administration fee will be waived. If you, as an eligible property owner, would like to explore this option, please review the information located at www.capitalcityplume.org.

To provide continuous notifications to current and new property owners, a similar letter will be mailed in the fourth quarter of each year. Any changes to these restrictions will be updated in these annual letters. Should you have any questions regarding this notification letter, please contact Glen S. Davis at 334-215-9016 or glendon.davis@jacobs.com.

Sincerely,

Glen S. Davis
Jacobs Engineering Group, Inc.
Consultant to the Downtown Environmental Alliance

c: Project File

Appendix G
Telephone Logs

CH2MHILL

TELEPHONE CONVERSATION RECORD

CALL TO Tammy
427 E. Jefferson (Ralph Smith Motor) PHONE NO. 263-1347

CALL FROM Glen Davis DATE 12/20/19

MESSAGE TAKEN BY TIME 11:20 ☑ AM ☐ PM

SUBJECT Montgomery DEAP IC Notice PROJECT NO. 666378CH.

- No Wells currently on Property
- Environmental Covenants are offered to formalize the groundwater restrictions + offer protection for future owners of the property that groundwater use is prohibited
- "Thank you for the information + Good Bye"

CH2MHILL

TELEPHONE CONVERSATION RECORD

CALL TO Joe McClendon (317 N. Decatur St.)

PHONE NO. 334-269-0017

DATE 12/~~20~~23/19

CALL FROM Glen Davis

TIME 11:45 ☑ AM ☐ PM

MESSAGE TAKEN BY

PROJECT NO. 666378CH.

SUBJECT Montgomery DEAP IC Notice + ECs

- There was a well on site, but closed
  - → sealed with 1" steel plate (thick)
  - → Closed in ~~80~~ late 1990s
  - → 3 foot Concrete on top
  - → About 2ft ø
- Very environmentally friendly
  - ↳ Floors cleaned weekly
- Performed testing when purchased
- Well was closed with EPA oversight.
- "Vapor Barrier" installed when well was abandon? When 3-ft Concrete was placed.
- Interested in EC + has started filling out paperwork
- 22 years - 1998
- Mike Taylor / MTS Construction - Former Owner
  - ↳ Closed well
- May sell to Partner - Remain Auto Shop
- City water
- joemcc@knology.net - EC Info

CH2MHILL

TELEPHONE CONVERSATION RECORD

CALL TO Barry Leavell — PHONE NO. 334-834-86663

DATE 2/11/20

CALL FROM Glen Davis — TIME 12:30 ☐ AM ☑ PM

MESSAGE TAKEN BY

PROJECT NO. 666378CH.01.CI

SUBJECT Montgomery DEAP

- 3336 North Court - Attorney Selling of Property
- Purchaser = EJI
- Only GW Restriction + suggested Vapor barrier

- bcl@barryleavell.com → Resend Letter

- We suggest your client do their own due diligence (ie. Phase I/II ESA) as part of property transaction

- Pointed him to the website + suggested he review the EI Report

- Has any additional sampling been done on 205 Madison Block
  - → MW-07S in 2016
  - → He will review EI Reports.