July 26, 2013

Ms. Shari Kolak
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Subject: **Phase II Investigation Summary Technical Memorandum**
East Troy Contaminated Aquifer (ETCA) Site
Remedial Investigation/Feasibility Study (RI/FS); Troy, Ohio
Work Assignment No. 145-RICO-B5EN

Dear Ms. Kolak:

SulTRAC is submitting the enclosed Phase II Investigation Summary (Technical Memorandum) for your review. The technical memorandum provides a summary of field investigation activities and results from Phase II of the remedial investigation (RI) at the East Troy contaminated aquifer (ETCA) site in Troy, Ohio.

If you have any questions regarding this submittal, please call me at (513) 333-3669.

Sincerely,

Guy Montfort
SulTRAC Project Manager

Enclosure

cc: Parveen Vij, EPA Contracting Officer (letter only)
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East Troy Contaminated Aquifer (ETCA) Site
Remedial Investigation/Feasibility Study (RI/FS)
Troy, Ohio

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This technical memorandum provides a summary of field investigation activities and results from the remedial investigation (RI) at the East Troy contaminated aquifer (ETCA) Site in Troy, Ohio, through completion of Phase II of the RI, with an emphasis on the data collected during Phase II. The data gaps identified in this document are based on interpretation of the results of field sampling efforts during Phase II of the RI, which was completed in the summer of 2013. Any proposed Phase III activities and sampling locations will be designed to address remaining data gaps with regard to the remedial action objectives of the RI specified in SulTRAC's approved site-specific sampling and analysis plan (SAP) dated August 2010 and the SAP addendum dated December 2011.

The results of Phase I of the RI, data gaps, and data needs for the Phase II investigations were presented in the Phase I Investigation Summary and Proposed Phase II Investigation Scoping Technical Memorandum (Phase I technical memorandum) (SulTRAC 2013). Detailed information regarding field and analytical procedures used for Phase II can be found in the SAP (SulTRAC 2010) and SAP addendum (SulTRAC 2011). Detailed descriptions and analysis of all sampling results will be presented in the RI report to be prepared after all Phase III RI activities have been completed. This Phase II RI summary provides brief descriptions of the site background (Section 1.0); Phase II data collection activities completed (Section 2.0); a summary of key findings based on overall assessment of the data resulting from all activities (Section 3.0); and a summary of data gaps remaining with regard to project objectives (Section 4.0). Figures summarizing the completed sampling locations and tables summarizing the Phase II analytical data are presented after the text.

1.0 BACKGROUND

The ETCA Site is located in Troy, Miami County, Ohio (see Figure 1). The site encompasses areas on the east and west sides of the Great Miami River (GMR), which flows from northwest to southeast in the immediate study area. The site consists of groundwater contamination, primarily tetracholoroethene (PCE), trichloroethene (TCE) and cis-1,2-dichloroethene (cDCE), in a sand and gravel aquifer. Groundwater flow in this aquifer is generally also toward the southeast, but is locally influenced by pumping in the City of Troy's east municipal supply wellfield located within the site, on the east side of the GMR.

The site includes two general areas of groundwater contamination lying west of the GMR that are believed to originate from separate, multiple sources. One area of contamination, referred to as the "Residential Area PCE Plume," originates in the vicinity of East Main and Walnut Streets. It extends southeastward beneath a primarily residential area and consists of PCE with lesser amounts of TCE in some locations. The second area of contamination, referred to as the "Water Street Plume," extends from the vicinity of the former Hobart Brothers Cabinet (Hobart) property on East Water Street, southeastward beneath a mixed industrial, residential, and institutional use area. PCE, TCE, and cDCE are typically detected in groundwater in this area. The specific compounds and relative amounts of each vary spatially and in some cases temporally at individual locations. During Phase I of the RI, soil and groundwater contamination was detected and indicated the presence of a source area on the Hobart property. Adjacent to and downgradient from the Hobart facility there is a second industrial facility, Spinnaker Coatings LLC (Spinnaker), where chlorinated volatile organic compound (VOC) contamination was also confirmed to be present in both soil and groundwater during Phase I. The relationship between

the contamination on the two properties and along Water Street is being investigated as part of the RI.

The site also includes groundwater contamination on the east side of the GMR. cDCE has been detected in several municipal water supply wells in the City of Troy's East Wellfield. This wellfield includes five production wells: P-14, P-18, P-4, P-17, and P-13. Typically, cDCE is detected only in samples from well P-18, but prior to 2007 was occasionally detected in well P-14 and more recently has been sporadically detected in well P-17. The concentrations detected have been below the U.S. Environmental Protection Agency (EPA) Maximum Contaminant Levels (MCLs) established under the Safe Drinking Water Act. Pumping from the wellfield appears to affect groundwater flow patterns in the deep portions of the aquifer on both sides of the GMR.

VOCs have also been detected in and around the City of Troy's West Wellfield, which lies approximately 1 mile upgradient (northwest) from the ETCA Site. Current information appears to indicate that the sources of contamination at the ETCA site are separate and different from those that affected the West Wellfield; thus, the West Wellfield is not considered part of the ETCA Site.

Investigations of VOC contamination in various media by Ohio EPA, EPA, and private entities have been ongoing since the 1990s and confirmed the presence of groundwater and soil contamination and vapor intrusion (VI) concerns the ETCA site. EPA initiated the RI at the ETCA site in 2009. The objectives of the RI focus on identifying the sources as well as the nature and extent of contamination. The RI is being completed in multiple phases. Phase I was completed in 2012. Phase II was completed in the summer of 2013. Additional investigation will likely be conducted as Phase III in the summer and fall of 2013.

Additional detailed information regarding the site history, project objectives, and methods of the investigation are presented in the SAP (SulTRAC 2010) and SAP addendum (SulTRAC 2011). Detailed information regarding the scope and results of Phase I RI activities are presented in the Phase I technical memorandum (SulTRAC 2013).

2.0 SUMMARY OF PHASE II ACTIVITIES

Scoping-related activities for Phase II of the RI for the ETCA site were conducted as Phase I data became available during 2012. The proposed scope of Phase II investigations was documented in the Phase I technical memorandum (SulTRAC 2013). Figure 2 indicates the locations of all Phase II soil and groundwater sampling points.

Phase II of the RI included ongoing review of Kimberly Clark's (KC) quarterly monitoring data. Phase II field investigations commenced in August 2012, with a second round (summer seasonal) of VI sampling at locations initially sampled in January 2012 during Phase I. A preliminary boring program with collection of groundwater samples was completed in December 2012. In January of 2013, a round of deep groundwater level measurements was collected, followed by a drilling, vertical aquifer sampling (VAS), and monitoring well installation program. In February 2013, a soil boring and sampling program, which also included additional groundwater sampling, was completed. A comprehensive groundwater sampling event was completed in March 2013 that included all Ohio EPA, City of Troy, and newly installed Phase I and Phase II RI monitoring wells, as well as several wells on the Spinnaker site and Miami Conservancy District (MCD) piezometers located adjacent to the GMR. VI monitoring of additional locations, selected based on ongoing review of data from Phase II activities, was completed in May 2013. Research on potential source areas, including review of historical property use information, was conducted on

an ongoing basis throughout Phase II as sampling data became available. A site visit with inspections of each of the contaminant source areas identified during Phase I and Phase II was conducted in July 2013. Each of these activities is described below in chronological order. Detailed information regarding the project data quality objectives and methods employed during the investigation is presented in the SAP (2010) and SAP addendum (2011).

A. Quarterly Sample Data from KC – June 2012 through March 2013

KC conducts quarterly monitoring of wells on the west side of the Spinnaker plant site. The samples are analyzed for VOCs, and KC provides these data to EPA. The KC samples are analyzed by a regional laboratory (TestAmerica). EPA reviews these data to supplement the ongoing RI data collection but does not conduct detailed analysis of the results. During Phase II, quarterly data for groundwater sampling events completed in June, September, and December 2012 and March 2013 were received and reviewed.

B. Phase II Vapor Intrusion Sampling – Resampling of Phase I Locations, August 2012

During Phase I, 18 locations were sampled for VI in February 2012. Sixteen homes and two commercial business locations were tested for indoor air VOCs and sub-slab vapor VOCs (if they had a basement with a slab) following Ohio EPA and EPA guidance. Current guidance recommends multiple seasonal sampling events to account for potential variability in concentrations caused by use of heating, ventilation, and air conditioning (HVAC) systems and windows at different times of year. For this reason, EPA requested Phase II access to each of the Phase I locations for a second round of sampling. Ultimately, 15 locations authorized access for the summer resampling in August 2012. All air samples were analyzed for VOCs using Method TO-15 by Air Toxics, a subcontracted laboratory.

C. Geoprobe Groundwater Screening Samples, December 2012

Based on the results of Phase I and discussions with EPA regarding the scope of the Phase II hydrogeologic investigation, it was determined that additional screening data were needed to optimize placement of permanent monitoring wells for the objective of confirming the boundaries of the Residential Area PCE plume. These data were further needed to confirm the proposed locations for VI monitoring. EPA completed 14 borings to the top of the water table using a direct-push rig at locations on Walnut, East Franklin, East Canal, Mulberry, Crawford, Counts, Frank, Williams, and East Main Streets and in the area between East Main Street and the GMR. EPA collected screening-level groundwater samples to estimate plume boundaries and support decisions regarding Phase II monitoring well placement. Groundwater samples were analyzed for VOCs by a regional laboratory (TestAmerica).

D. Measurement of Piezometric Elevations – Deep Aquifer Zone – January 2013

Review of the Phase I groundwater data indicated that the shallow groundwater plume extended to the area above the portion of the deep aquifer zone within the area of pumping influence from the East Wellfield. Review of Phase I piezometric data indicated that Troy well P-18, where cDCE is routinely detected, was not pumping at the time groundwater elevations were measured for either of the two Phase I sampling events. For this reason, EPA collected an additional round of piezometric elevation data from the deep monitoring wells and Troy East Wellfield production wells in January 2013 to evaluate groundwater flow patterns with well P-18 operating. EPA used these data in selecting locations for additional monitoring wells and vertical aquifer sampling (VAS) locations during Phase II. Groundwater elevations in all of the available "deep"

monitoring wells were measured, with the exception of well MW-EPA-112D, as ice above and inside of the well vault prevented access to the inner well casing.

E. Vertical Aquifer Sampling and Monitoring Well Installation, January 2013

A drilling program consisting of a series of shallow and deep borings installed using Rotosonic drilling techniques was conducted in January 2013. The program was conducted to supplement the Phase I monitoring well network by providing additional permanent monitoring wells in areas where Phase I data and the December 2012 Geoprobe sampling indicated that that additional data were needed regarding the vertical and horizontal extent of contamination, as well as to identify contaminant source areas and migration pathways. A total of six additional shallow wells and two "intermediate" depth wells were installed in the residential plume area west of the GMR. One deep monitoring well (MW-EPA-123D) was installed directly upgradient from the East Wellfield on the east side of the GMR to confirm that contamination detected to date in the East Wellfield was not migrating from the West Wellfield plume area through the deep zone. VAS (groundwater) samples were also collected from this boring (VAS-208), and two additional VAS borings (VAS 209 and 210) were located in the area between the GMR and the East Wellfield, near production wells P-14 and P-18. Monitoring wells were not installed at these locations because of their proximity to the production wells. Samples from VAS borings were analyzed at a local laboratory as screening samples. VAS results were used to evaluate the vertical distribution of groundwater contamination within the sand and gravel aquifer and to determine the depth and location where contamination is entering the wellfield area. An elevation survey tying all existing and new monitoring wells to a common datum was also completed.

F. Comprehensive Groundwater Sampling, February-March 2013

A Phase II groundwater sampling event was conducted that included all 28 RI Phase I and Phase II monitoring wells and 23 existing wells installed by other entities. Samples were analyzed through the EPA Contract Laboratory Program (CLP) for VOCs. The sampling event included a total of 51 wells consisting of all existing Ohio EPA and City of Troy monitoring wells (except well OEPA-5 because this data point has been replaced by wells farther downgradient), three KC wells at the Spinnaker East and West End areas, two MCD piezometers, and the 28 wells installed during Phases I and II of the RI. Groundwater elevation data were collected at all of the monitoring wells and the six City of Troy East Wellfield production wells. Production wells P-18 and P-13 were operating at the time the depth to water was measured and groundwater samples were collected from the monitoring wells.

G. Soil Sampling and Shallow Groundwater Screening Samples, February 2013

The primary objectives of this program were to provide data regarding the potential sources and the extent of soil contamination in the source areas and "hot spots." In addition, based on screening groundwater sample data from December 2012 and January 2013, several additional shallow borings were completed to allow collection of screening groundwater data to supplement data from the monitoring well network with regard to the boundaries of the shallow Residential Area PCE plume. Twenty-seven borings were completed using a Geoprobe sampler. Soil samples were collected at locations in proximity to suspected source areas and analyzed for VOCs by SW-846 Method 5035. Several surficial soil samples were collected from residential yards in the area between the Hobart and Spinnaker sites to support the human health risk assessment. Groundwater samples were collected from some borings and analyzed for VOCs. Only groundwater screening samples were collected at several borings completed around the boundaries of the plume areas to supplement the data from the monitoring well network regarding

plume boundaries and source locations. KC representatives collected split samples of all soil and groundwater samples collected on the Spinnaker and Hobart properties.

H. Additional Phase II Vapor Intrusion Sampling, April 2013

EPA requested access for sampling at 105 locations deemed "priority" locations for VI monitoring based on all available data (pre-RI data, RI Phase I data, and Phase II data collected by January 2013). Based on those locations where the owners agreed and additional locations where owners offered access during public meetings, a total of eight residential and two non-residential commercial locations were ultimately sampled. Samples were collected for analysis of indoor air VOCs and sub-slab vapor VOCs if buildings had a basement with a slab, following Ohio EPA and EPA guidance. All air samples were analyzed for VOCs using Method TO-15 by Air Toxics, a subcontracted laboratory.

I. Source Area Site Visits – July 2013

EPA, Ohio EPA, and SulTRAC conducted site visits at various locations in the groundwater contaminant source areas on July 2 and 3, 2013. Site visits, including inspection of the interior and exterior areas of structures, were conducted at the following areas: the First Presbyterian Church addition at Walnut and Main Streets and the nearest downgradient structure at 102 East Main Street; a former Waltz Dry Cleaners location at Union and Main Streets; the Hobart facility, and the Spinnaker facility's western plant addition. The purpose of the site visits was to obtain more detailed information regarding potential sources and contaminant migration pathways. No intrusive sampling activities were conducted.

3.0 SUMMARY OF KEY OBSERVATIONS FROM EVALUATION OF PHASE II DATA

The following section summarizes key observations resulting from Phase II data regarding the sources, nature, and extent of contamination. Where applicable, discussions are centered around the data gaps identified in the Phase I technical memorandum (SulTRAC 2013). Figures showing sampling results and tables showing analytical results for Phase II RI samples are presented after the text.

A. Site Geology and Hydrogeology

Site geologic conditions observed during Phase I and Phase II of the RI indicated a highly variable and complex subsurface in the site area. Figure 3 shows the locations of cross sections depicting the subsurface conditions observed, which are presented in Figures 4through 8.

Subsurface materials encountered generally consisted of sand and gravel with interbedded, laterally discontinuous clay and silt layers of variable thickness and occurring at varying depths. In general, west of the GMR, clay layers of significant thickness were encountered more frequently in the area between East Main Street and the GMR (with the exception of location MW-EPA-112D), whereas clays appear to be generally thinner or absent at locations south of East Main Street. Clays were encountered at most locations on the east side of the GMR.

The groundwater elevation data collected during the Phase II groundwater sampling event are presented in Table 1. Figures 9 and 10 present the apparent groundwater flow contours for the Phase II sampling event for the shallow and deep aquifer zones. (Municipal wells P-18 and P-13 were operating during the sampling event when groundwater elevations were measured.)

- Groundwater flow in the ***shallow*** zone has appeared relatively consistent over time in the area south of East Main Street and is generally southeastward, roughly parallel to the Great Miami River.

- Groundwater flow in the ***shallow*** zone in the area east of Oak Street and north of East Main Street appears to have a component of flow in the direction of the GMR and the East Wellfield pumping centers, suggesting that pumping in the deep portion of the aquifer east of the river may influence flow in the shallow zone west of the river.

- The Phase II data for the ***shallow*** aquifer in the area between East Water Street and the GMR appear to indicate flow partially toward, and in the downstream direction of the GMR. Comparison of Phase I and Phase II data suggests that varying water levels in the GMR and adjacent portions of the aquifer result in variable flow patterns in this area.

- The groundwater flow direction in the ***deep*** aquifer zone in the area west of Oak Street appears to be southeastward, parallel to the GMR.

- The flow in the ***deep*** portion of the aquifer in the area east of Oak Street becomes increasingly influenced by pumping in the East Wellfield, with the flow contours wrapping inward toward the wellfield.

- Groundwater flow in the ***intermediate/50-foot*** zone, west of Crawford Street, appears to be southeast, parallel to the GMR, and consistent with the flow patterns in the shallow aquifer in this area.

- Piezometric head differences measured between the shallow, intermediate, and deep zones west of the GMR (see Table 2) indicate potential vertical gradients that vary in both direction and magnitude across the site, ranging from upward, to neutral, to downward. The direction generally remained consistent although the magnitude varied over time at locations where data were available for both the Phase I and Phase II events. The maximum downward gradient was observed at shallow/deep well locations MW-EPA-118S/ Troy MW-P at the intersection of East Main and Williams Street during Phase II. The maximum upward gradient was measured at shallow /deep well pair OEPA-3/MW-EPA-112D on the Spinnaker property during Phase II.

- As noted in the discussion of site geology, clay layers of significant thickness were observed between the upper and lower aquifer zones at some locations. Therefore the differences in vertical head observed among zones may simply reflect locally limited hydraulic communication between zones, rather than actual downward or upward flow. However, the flow contours in the shallow zone in the area east of Union Street and north of East Main Street appear to indicate a component of flow toward the river or East Wellfield. These contours may indicate that pumping in the deep zone east of the GMR influences flow in the shallow aquifer in some areas west of the river.

- East of the GMR, differences in piezometric head measured between the shallow and deep zones indicated downward vertical gradients at the Troy MW-L/M and MW-EPA-105S/D well clusters.

B. Extent of Groundwater Contamination

The following section discusses the horizontal and vertical extent of groundwater contamination based on the Phase I and Phase II data, with consideration of the Spinnaker quarterly monitoring data where applicable.

Residential Area PCE Plume

Figures 11 and 12 present Phase II groundwater data for the shallow and the intermediate/deep zones. Tables 3 and 4 summarize the groundwater data used to support the following discussions. The following observations were noted:

- The Phase II investigations indicated that the horizontal extent of contamination in the upper aquifer zone extends farther southeast than the Phase I data indicated.

- The shallow contamination appears to be bounded by East Main Street on the north in the vicinity of the original suspected source at East Main and Walnut Streets. Screening data collected from Geoprobe borings on the west side of Walnut Street indicated a relatively narrow plume emitting from the area beneath the present-day Presbyterian Church addition, flowing southeastward. The southern boundary of the plume in this area appears to lie between monitoring well OEPA-11 and East Franklin Street. Relatively high concentrations of PCE – similar to those detected in the suspected source area — were detected in a screening-level groundwater sample collected on South Mulberry Street adjacent to the exit from the police station parking area; whereas a groundwater sample collected during Phase I indicated lower concentrations of PCE at the corner of Mulberry and East Main Streets. These data, combined with screening data collected on the north side of East Main Street, suggest that the axis (more concentrated portion) of the plume trends gradually (southeastward) away from East Main Street as it moves downgradient.

- The downgradient/lateral boundary of the plume in the Franklin Street area was confirmed to lie in the area between Williams and East Main Streets, consistent with screening-level data collected during Phase I. PCE, TCE, or cDCE were not detected in groundwater samples collected from monitoring well MW-EPA-115S at the intersection of East Franklin and East Main Streets. In addition, a screening groundwater sample collected from a Geoprobe boring on East Main Street approximately 300 feet east of MW-EPA-115S was also "nondetect" for PCE, TCE, and cDCE.

- The southern lateral boundary of the residential area plume in the area between Mulberry and Union Streets appears to be in the area between East Franklin and East Canal Streets. The axis of the plume – which includes the area with relatively high concentrations of PCE in groundwater – appears to be limited to a relatively narrow corridor centered just north of East Franklin Street with its northern boundary between East Franklin and East Main Streets.

- Phase II data collected from monitoring wells and Geoprobe borings indicate that the axis of the residential area PCE plume in the area southeast of Union Street trends south of East Franklin Street, with the highest concentrations present in the area between East Franklin and East Canal Streets. The maximum downgradient extent of the Residential Area PCE plume in this area appears to lie near East Canal Street, in the vicinity of Floral Avenue. A screening groundwater sample collected from a Geoprobe boring located along Floral Avenue (FLO-1) on the apparent plume axis (based on groundwater flow direction) contained PCE at a low concentration (2 micrograms per liter [µg/L]), below the applicable

screening level of 5 µg/L. The southern lateral boundary of the plume in this area appears to lie between East Canal and Scott Streets based on data from three Geoprobe borings (FRA-1, MOR-1 and FLO-2). VOCs were not detected in these three samples.

- Groundwater samples from borings and monitoring wells located in the vicinity of East Main and Williams Streets did not contain detectable concentrations of VOCs, indicating that the Residential Area PCE plume does not extend into that area.

- Data collected from borings and monitoring wells located on Crawford Street, Union Street, and the intervening area indicated that PCE contamination detected at monitoring well MW-EPA-103S may represent a second PCE plume originating from another source at the intersection of East Main and Union Streets. This plume appears to move eastward through the area north of East Main Street and east of Union Street. This plume appears to extend eastward to the GMR in the area between the northern termini of Counts and Williams Streets and may co-mingle with the Water Street area plumes in this area. The maximum eastern/downgradient limit of this plume appears to be located between the MCD T-13/14 piezometers and Phase II boring location BW-013 approximately 600 feet southeast of MCD-T-13/14. Screening data from a groundwater sample collected at this boring in December 2012 did not indicate the presence of PCE.

- The highest concentrations of PCE were detected at monitoring wells OEPA-7 and OEPA-6, with PCE concentrations approximately 3 times higher than those detected in the shallow zone in the original source area at Walnut and Main Streets. These wells are located near the intersections of Clay and Crawford Streets with East Franklin, two and three blocks downgradient from the original source area. Phase I and Phase II investigations did not find other likely primary sources of contamination in this area. The plume appears to be relatively narrow in this area, as indicated by data from Phase II borings BW-006 and BW-007 and monitoring well EPA-102S, installed along Crawford Street, and all of which appear to be on or just outside the lateral edges of the plume. High contaminant concentrations at locations downgradient from the original source area suggest the possibility of residual PCE (from an old release that migrated from the original source area) back-diffusing from fine-grained materials into the sand and gravel aquifer.

- Table 2 includes a comparison of PCE, TCE and cDCE concentrations detected in groundwater at locations where multiple depth horizons are monitored. The vertical extent of contamination in the vicinity of the original source area appears to include PCE contamination in the shallow zone associated with the range of fluctuation in the water table (approximately 16 to 20 feet below ground surface [bgs]); and a deeper “intermediate” zone lying at approximately 50 feet bgs that contains both PCE and lower concentrations of TCE. Overall, the highest contaminant concentrations encountered to date at the ETCA site have been detected in monitoring well 107I, screened within this “intermediate” depth zone.

- Contamination at the 50-foot level was also encountered in well MW-EPA-119I near the intersection of Clay and East Franklin Streets, but was not detected at intermediate well MW-EPA-104I, located north of East Main Street between Clay and Crawford Streets. For these reasons, the lateral extent of the highly contaminated “intermediate” zone appears to be limited to a relatively narrow area between the original source at Walnut and Main Streets and the vicinity of Clay Street.

- VOCs were not detected in the deep zone (monitoring wells screened at depths greater than 70 feet bgs) during the Phase II investigation. These data suggest that vertical migration of

significant concentrations of VOCs to the deep aquifer zone is not currently occurring in the Residential Area PCE plume and that chlorinated VOCs are migrating to the deep part of the aquifer in the area closer to the wellfield and the GMR.

Water Street Area

The following sections discuss observations regarding the groundwater contamination in the Water Street Area. Figures 11 and 12 present Phase II groundwater data for the shallow and the intermediate and deep zones. Tables 2, 3 and 4 summarize all Phase II groundwater data.

- In general, groundwater contaminant concentrations detected in samples from shallow monitoring wells during the Phase II sampling event were lower and groundwater elevations were higher than those observed during the Phase I baseline or comprehensive events, suggesting that variations in groundwater levels may affect groundwater concentrations on a temporal basis.

- PCE and TCE were detected in groundwater samples collected from shallow monitoring wells located on, adjacent to, and directly downgradient from the Hobart property.

- Samples from Phase II shallow groundwater monitoring well MW-EPA-122S, installed on the northern terminus of Clay Street, directly upgradient from the Hobart facility loading dock area, did not contain detectable concentrations of VOCs. This observation, and data from monitoring well OEPA-13, are consistent with Phase I data that indicate a groundwater contaminant plume originates on the Hobart property.

- TCE and cDCE were detected in shallow groundwater samples from borings and monitoring wells in areas farther downgradient along Water Street; areas on the Spinnaker site and adjacent areas on the GMR levee. The highest concentration of VOCs detected was TCE at 39 µg/L, collected in a screening sample from a soil boring between the north side of the Spinnaker western plant building and the levee of the GMR. The location of this sample was in the same general area where Ohio EPA also detected TCE and cDCE in shallow groundwater samples collected using a Geoprobe in 2007. The concentration of TCE was higher than is typically reported in any of the adjacent shallow monitoring wells during Spinnaker's quarterly monitoring events and higher than those observed in Phase I or Phase II groundwater samples collected by EPA at nearby well OEPA-3.

- On the Spinnaker site, VOCs were not detected in a groundwater sample from Spinnaker shallow monitoring well KMW-10. VOCs were also not detected in a split sample collected by KC from this well. These results are inconsistent with KC quarterly data from this well, which typically indicate the presence of cDCE at concentrations as high as 120 µg/L. Quarterly samples collected by KC from this well in March and June 2013 reportedly contained cDCE, but at lower concentrations than observed in past sampling events.

- PCE was detected in a groundwater screening sample collected from Phase II boring BW-008, located on the west side of New Street approximately midway between East Main and East Water Streets. This sample, and data from monitoring wells MW-EPA-114S and Spinnaker well GZA-2, suggests that PCE originating from the Water Street area may co-mingle with a PCE plume migrating from the vicinity of the area of Union and East Main Streets as the plumes move east/southeast toward the GMR.

- Low concentrations of TCE and cDCE were detected in samples collected from shallow monitoring well KMW-4, located in the Spinnaker east end, near the GMR levee. VOCs were not detected in adjacent deep monitoring well MW-EPA-113D.

- Table 2 includes a comparison of PCE, TCE and cDCE concentrations detected in groundwater at locations where multiple depth horizons are monitored. VOCs were not detected in any of the deep monitoring wells (MW-EPA-109D, located on the Hobart property, or MW-EPA-112D or 113D, located on the Spinnaker property).

East Side of GMR

The following sections discuss observations regarding the groundwater contamination in the area east of the GMR, near the East Wellfield. Figures 11 and 12 present Phase II groundwater data for the shallow and the intermediate/deep zones. Tables 2, 3 and 4 summarize data relevant to the following discussion.

- Chlorinated VOCs were not detected in any monitoring wells located east of the GMR.

- VOCs were not detected in samples from Phase II deep monitoring well MW-EPA-123D or VAS samples collected at shallower depths in the boring for this well (VAS-208). This well is screened at the same approximate depth horizon as the lower part of the screened zones in Troy production wells P-14 and P-18. These observations, when considered with regard to the other groundwater sample data collected east of the GMR, suggest that (1) VOCs detected in the Troy East Wellfield production wells are not migrating at depth from the West Wellfield area, and (2) shallow groundwater data collected to date have not indicated a contributing source on the east side of the GMR.

- VOCs were not detected in any of the samples collected at VAS boring VAS-210, located near and upgradient from Troy production well P-14.

- VOCs were not detected in groundwater screening samples collected at the 25- and 50-foot horizons at VAS boring VAS-209, located between Troy production well P-18 and the GMR. cDCE was detected at concentrations of 1.69 and 3.19 µg/L in samples from 75 and 105 feet bgs. These sample depths correlate with the upper and lower portions of the screened horizon at P-18, where cDCE is also routinely detected at similar concentrations. These observations, in light of the apparent absence of cDCE at upgradient locations east of the GMR, suggest that cDCE or a parent VOC such as TCE or PCE may be migrating beneath the GMR at a depth below 50 feet in the area between locations VAS-209 and VAS-210.

D. Vapor Intrusion

The results of Phase II vapor intrusion monitoring are presented in Figure 13 and Table 5 and indicate the following:

- Results at locations sampled in both Phase I and Phase II were generally consistent between the two events with regard to compounds detected and locations where elevated results were noted. Although concentrations varied between the two events, Phase II and summer results that exceeded applicable screening levels were noted only at the same locations where results exceeded applicable screening levels in the Phase I and winter samples. Several property

owners of locations sampled in Phase I declined access for Phase II sampling and, therefore, no Phase II and summer data are available for these locations.

- Results from additional Phase II locations sampled in the spring of 2013 indicated that the areas of most significant potential concern with regard to vapor intrusion are generally aligned with the axes of the groundwater contaminant plumes.

- The farthest downgradient location that granted access for sampling in the residential PCE plume area was located on East Canal Street between Counts and Frank Streets; results that exceeded sub-slab screening levels were observed at this location.

- The Phase I and Phase II results suggest that the areas of most significant potential concern for vapor intrusion include the following areas (1) the area west of Union Street bounded by East Walnut Street, East Main Street and East Franklin Street, (2) the area east of Union Street bounded by East Water Street, East Franklin Street and Williams Street, (3) the area bounded by Union Street, East Canal Street, East Franklin Street and Morehead Street, and (4) East Water Street east of Crawford Street.

E. Source Area Investigations

The following sections summarize Phase II data and observations regarding contaminant source areas identified to date. Figures11, 14, and 15 and Tables 3, 4, and 6 summarize groundwater and soil VOC data pertinent to the following discussions.

Residential Area PCE Plume

- Historical information suggests that the area occupied by the former dry cleaner at 10 East Main Street, now beneath the footprint of the church addition, was excavated prior to construction of the new structure. It is unlikely that any structures associated with the former dry cleaner remain, as this building reportedly had no basement. The depth of excavation is unknown and has been reported as being perhaps as shallow as 6 feet, or as deep as 16 feet bgs, approximately the top of the zone of fluctuation in the water table.

- Groundwater data from Phase II borings and monitoring well sampling did not indicate other source areas of PCE for this plume. Screening data collected from Geoprobe borings on the west side of Walnut Street, on the downgradient side of the present-day First Presbyterian Church addition, indicated a relatively narrow PCE plume emitting from the area beneath the structure and flowing southeastward.

- Groundwater samples collected on the west side of Walnut Street contained lower concentrations of PCE than are typically observed in monitoring wells located farther downgradient to the southeast. However, it should be noted that groundwater concentrations measured during all Phase II sampling activities were lower at many locations than have been observed in the past, perhaps as a result of seasonal variation.

- Historical information (Sanborn maps, city directories, and other sources) indicate that a two-story building formerly located in the area now occupied by the municipal and police parking lots between Walnut and Mulberry Streets, behind the group of structures at 100-120 East Main Street, was used as an automotive repair shop prior to the mid-1960s. The shop was last operated by a Chrysler dealership that also formerly occupied the adjacent parcel where the Troy Police Department is now located at 120 East Main Street. Phase II soil

samples collected along East Walnut Street in the vicinity of this building, and soil samples collected in the parking lots during Phase I, did not indicate significant VOC contamination above the zone of fluctuation in the water table. For these reasons, soil data have not indicated a significant PCE source area associated with the former garage.

- During Phase II, inspection of and historical information for the building basement at 102 East Main Street did not indicate past site use or features that would suggest additional primary sources of contamination at that location. For this reason, the groundwater contamination observed in front of this building on Main Street during the Phase I soil boring program, and VOCs in air samples collected in structures in this block, are currently believed to be associated with migration of PCE in shallow groundwater from the original suspected source (former dry cleaner at 10 East Main), which is located hydraulically upgradient.

Water Street Area

- In Phase I, soil data confirmed the presence of significant concentrations of PCE, TCE, and 1,1,2-trichlorothane (1,1,2-TCA) in shallow soils (2 to 4 feet bgs) in a sample collected near the Hobart loading dock. Additional borings were completed in the area behind the Hobart building during Phase II to evaluate the extent of soil contamination. One or more of these compounds were detected in the soil samples, at depths ranging from 1 to 4 feet bgs. The highest concentrations were detected in samples collected on the northwest west side of the rear loading dock structure in soil samples SB-002 and SB-003. The maximum concentrations detected were as follows: PCE – 2,000 micrograms per kilogram (µg/kg); TCE – 1,700 µg/kg; 1,1,2-TCA 6.9 µg/kg; and, cDCE – 36 µg/kg.

- As previously discussed, VOCs were not detected in Phase II samples from groundwater monitoring wells OEPA-13 and MW-EPA-122S located immediately upgradient from the Hobart facility, confirming that a groundwater contaminant plume originates on the Hobart property (see Figure 11).

- Hobart formerly used PCE in a vapor degreaser that was located in a room adjacent to the East Water Street side of the building. The degreaser was located in the area close to monitoring well OEPA-12, which is the farthest upgradient location on East Water Street where PCE had been detected in groundwater. It also contained the highest concentrations of PCE and TCE detected in the East Water Street Area during Phase II. According to the site owner, PCE was brought in from the rear loading dock area in drums and was not stored in tanks. The vapor degreaser was removed in 2008, and the floor in the degreaser area was replaced with a new slab.

- The present Hobart building dates to the 1930s and was built atop structural footer walls that were associated with a whiskey warehouse dating to the late 1800s. The present main floor sits above these footers and ranges from about 1 to 2 feet above ground level at the northwest end to over 10 feet above present ground level at the southeast end. There is a partial basement in the rear of the building, beneath the northeast building area and loading dock. A wooden structure formerly ran along the back (northeast) side of the building to facilitate loading via a rail spur that ran from Clay Street southeast to the Spinnaker facility. The wooden addition burned down some time prior to the 1960s; the rail line was also removed from this area at an unknown date.

- At the Spinnaker site, Phase I soil data had indicated the presence of significant concentrations of TCE and cDCE, in shallow soils (2 to 4 feet bgs) at the western side of the western parking lot in the vicinity of monitoring well KMW-10. PCE was also detected at this location at lower concentrations than TCE and cDCE. KC's quarterly groundwater samples from well KMW-10 typically contain cDCE. This observation suggests a source or secondary source of cDCE in the vicinity of well KMW-10. The cDCE may be a degradation product of TCE. During Phase II, three additional soil borings (SB008, SB014, and SB015) were completed in this general area of the parking lot (see Figure 15). One or more of the compounds PCE, TCE, or cDCE was detected in soil samples from each boring, at depths ranging from 1 to 9 feet bgs. Concentrations detected were lower than those detected in the Phase I soil sample. The highest concentrations detected were as follows: PCE – 11 µg/kg; TCE – 1,200 µg/kg; and cDCE – 180 µg/kg.

- Two additional Phase II soil samples (SB006 and SB007) were collected in the extension of the western Spinnaker parking between the residences on Water Street and the levee. Low concentrations of TCE (maximum of 20 µg/L) were detected in a sample collected at 6 feet bgs in one boring.

- A Phase II shallow groundwater screening sample (BW014) collected from a Geoprobe boring at the far northwestern and upgradient end of the parking lot extension contained low concentrations of TCE and cDCE, indicating that some TCE and cDCE are migrating into that area from upgradient locations (Figure 11).

- A series of five Phase II borings (SB009, SB010, SB011, SB012, and SB013) were completed around the north corner of the Spinnaker western plant building adjacent to (1) an area where, according to a 2007 report, contaminated soils were excavated and removed, but soils with detectable concentrations of TCE and cDCE were left in place after the excavation, and (2) an area between the building and the levee where Ohio EPA had detected TCE and cDCE in groundwater samples collected using a Geoprobe in 2007. During Phase II of the RI, chlorinated VOCs were detected in soil samples from each boring. Maximum concentrations were as follows: PCE – 7.1 µg/kg; TCE - 180 µg/kg; cDCE - 9.5 µg/kg; and 1,1,1-TCA - 11 µg/kg. TCE or cDCE were detected in two groundwater screening samples collected in the area between the rear of the Spinnaker building and the levee; the maximum concentrations were 39 µg/L TCE and 5.6 µg/L cDCE in the sample from boring BW-017. This sample was from the same general vicinity where Ohio EPA conducted sampling in 2007.

- A shallow groundwater screening sample (BW013) was collected from a boring in a residential yard directly adjacent to and upgradient from the fence line near well KMW-10. This sample contained PCE (18.9 µg/L) and TCE (1.47 µg/L). As previously discussed, the Phase II groundwater sample from well KMW-10 did not contain detectable concentrations of VOCs; however, KC's quarterly monitoring data typically indicates the presence of cDCE in this well.

- Review of historical information indicates that a former dry cleaner and machine shop was located in the area now occupied by the Spinnaker western parking lot prior to 1955. The location was in the approximate area west of the easternmost entrance gate. The exact nature of activities conducted at this dry cleaner is unknown.

- The original source of the TCE detected in groundwater behind the Spinnaker building is unconfirmed. As previously discussed, soils were excavated and removed from the area

along the western plant wall and northern building corner to remediate VOC contamination related to toluene spills and chlorinated VOCs from unknown sources. However, soil containing detectable concentrations of TCE and cDCE was left in place in the exterior areas excavated (Shaw 2006). According to KC, occasional equipment cleaning was conducted using small quantities of TCE in buckets in the vicinity of a door near the northern corner of the building. Limited borings have been completed within the Spinnaker building near the northern wall in the past and did not indicate a contaminant source beneath the area now occupied by the western plant building. The building was constructed in the 1960s.

- A production well that once supplied water to the plant is located beneath the area now covered by the footprint of this building; the well has been decommissioned, but it is unknown if it was ever abandoned.

Additional Potential Source Area, Union and East Main Streets

- During Phase II, two borings (BW-006 and MAI-1) and a permanent monitoring well (MW-EPA-120S) were completed in the area directly upgradient from the former Waltz Cleaners at 432 East Main Street (southwestern corner of Union and East Main Streets). Groundwater samples were collected from each of these locations, and VOCs were not detected (see Figure 11). PCE was detected in Phase I and Phase II samples from monitoring well MW-EPA-103S, located on the downgradient side of the group of structures that were formerly used as part of the dry cleaner operations associated with 432 East Main Street. The PCE concentration detected in the Phase II sample from well MW-103S was 19 µg/L.

- The former dry cleaner operation consisted of an original building located closest to East Main Street and at least three structures or additions that extend southward along Union Street or were incorporated into the operation over time. All dry cleaning equipment appears to have been removed from the building, which is currently used as an electronics repair shop. Several exhaust fans and vents are located in the buildings. A floor drain and sump is located in the southernmost building; this drain does not appear to currently be connected to the sewer.

4.0 SUMMARY OF DATA GAPS

The following items were identified as data gaps with regard to the primary objectives of delineating the nature, sources, and extent of contamination at the ETCA site.

A. Groundwater Contamination

Shallow Zone

- The downgradient extent of the Residential Area PCE plume in the vicinity of Floral Avenue is currently based on screening level data collected from Geoprobe borings. A permanent monitoring point may be necessary to verify the downgradient edge of the plume and support evaluation of the effectiveness of remediation efforts at a “point of compliance.”
- Various geochemical and physical parameter data are needed to evaluate and select potential remedial alternatives, particularly since it appears that most of the original sources of contamination no longer remain and that secondary sources (such as back-diffusion of sorbed contaminants from fine grained materials) may be contributing ongoing releases of contaminants to groundwater.

- A review of quarterly water level data collected by KC at the Spinnaker site is needed to evaluate seasonal fluctuations in groundwater flow direction in areas near the GMR.

Intermediate Zone

- Various geochemical and physical parameter data are needed in the vicinity of the original suspected source of the residential area PCE plume to evaluate and select potential remedial alternatives.

Deep Zone

- Additional water level data for VOCs are needed to evaluate flow patterns when production well P-14 is pumping.
- Additional VAS data are needed to identify the depth and location where shallow contamination originating at sources west of the river appears to be migrating beneath the river to the Troy East Wellfield area.

B. Source Area Confirmation

Residential Area PCE Plume Source Area

- Additional data are needed in proximity to the church addition at Walnut and East Main Streets to determine if residual contaminated source material (contaminated vadose zone soil) remains at this location.
- Various physical and geochemical parameter data are needed to evaluate and select remedial alternatives.
- Vapor intrusion data collected within the church addition are needed to supplement data collected on the building exterior as the original suspected source area (10 East Main Street) is completely beneath the footprint of the present-day structure.
- Physical and geochemical data are needed for possible secondary source areas (such as the Clay Street area) to evaluate the potential for ongoing release of contaminants and suitability of various remedial alternatives.

Water Street Area

- The horizontal extent of shallow soil contamination detected in the area between East Water Street and the GMR, including both the Spinnaker and Hobart properties, is not yet confirmed.
- The specific sources that caused the soil and groundwater contamination on the Hobart and Spinnaker properties have not been fully characterized.
- The source and extent of the TCE plume located between the Spinnaker building and the levee have not been confirmed.

Former Dry Cleaner 432 East Main Street

- Additional data are needed to determine if residual contaminated source material (contaminated vadose zone soil) is present at this location and (if possible) identify the locations of the original releases.

C. Vapor Intrusion

- A sufficient pool of vapor intrusion data was collected during the RI to support human health risk assessment. However, based on the results of Phase I and Phase II, more than 100 structures where vapor intrusion monitoring has not been conducted are located within the areas above the shallow groundwater contaminant plumes. EPA has requested access to many of these locations, and owners have either denied access or did not respond. Additional sampling may be warranted to evaluate the need for interim measures and for evaluating and delineating contaminant source areas.

- Only a single sample port was installed at most of the 2006-2007 locations sampled by EPA during the time-critical removal action (TCRA) when sub-slab vapor samples were collected. Current EPA and Ohio EPA guidance recommends at least two sampling ports per slab. In addition, no official follow-up testing (or confirmation that the systems are still operating) has been conducted at most locations where abatement systems were installed in 2007. EPA may consider a need for a future testing at these locations, depending on the results of the feasibility study (FS) with regard to remedial alternatives and timeframes.

D. Surface Water and Sediment

Phase II groundwater data, collected after the surface water and sediment samples were collected in Phase I, indicate that the PCE plume extends farther downgradient than previously thought and could discharge to the GMR at locations beyond the farthest 2010 downstream surface water sampling point. However, the stream is straight and channelized, and the west bank is lined with concrete throughout this area. The channelization prevents accumulation of significant amounts of sediment in this area, and the stream bottom is highly scoured and rocky. For these reasons, the presence of contaminated sediment is unlikely. However, surface water samples should be collected in the area of likely discharge of the PCE plume to the west bank of the GMR, in the area between the downstream end of the Spinnaker plant and the vicinity of MCD piezometer T-13/T-14 to evaluate whether chlorinated VOCs are being discharged from the shallow groundwater zone to surface water in the GMR.

REFERENCES

Shaw Group, Inc. 2006. "Supplemental Soil and Groundwater Delineation Report - Spinnaker Coatings Facility." October.

SulTRAC. 2010. "Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan- Phase I Remedial Investigation and Feasibility Study (RI/FS), East Troy Contaminated Aquifer Superfund Site, Troy, Miami County, Ohio." July 14.

SulTRAC. 2011. "Sampling and Analysis Plan Addendum, Vapor Intrusion Monitoring Program, East Troy Contaminated Aquifer Site RI/FS, Troy, Miami County, Ohio, Revision 0." December 9.

SulTRAC. 2013. "Phase I Investigation Summary and Proposed Phase II Investigation Scoping Technical Memorandum for the East Troy Contaminated Aquifer Site." July 12.

FIGURES

Figure 1: RI Phase II ETCA Site Location and Features

Figure 2: Phase II RI Sampling Locations

Figure 3: Cross Section Locations

Figure 4: Generalized Geologic Cross Section A to A'

Figure 5: Generalized Geologic Cross Section B to B'

Figure 6: Generalized Geologic Cross Section C to C'

Figure 7: Generalized Geologic Cross Section D to D'

Figure 8: Generalized Geologic Cross Section E to E'

Figure 9: RI Phase II, Shallow Groundwater Elevations and Potentiometric Surface,
February 25, 2013

Figure 10: RI Phase II, Deep Zone Groundwater Elevations, February 25, 2013

Figure 11: RI Phase II Groundwater Sampling Data, Shallow Zone,
December 2012 and February - March 2013

Figure 12: RI Phase II Groundwater Sampling Data, Intermediate-Deep Zones
February - March 2013

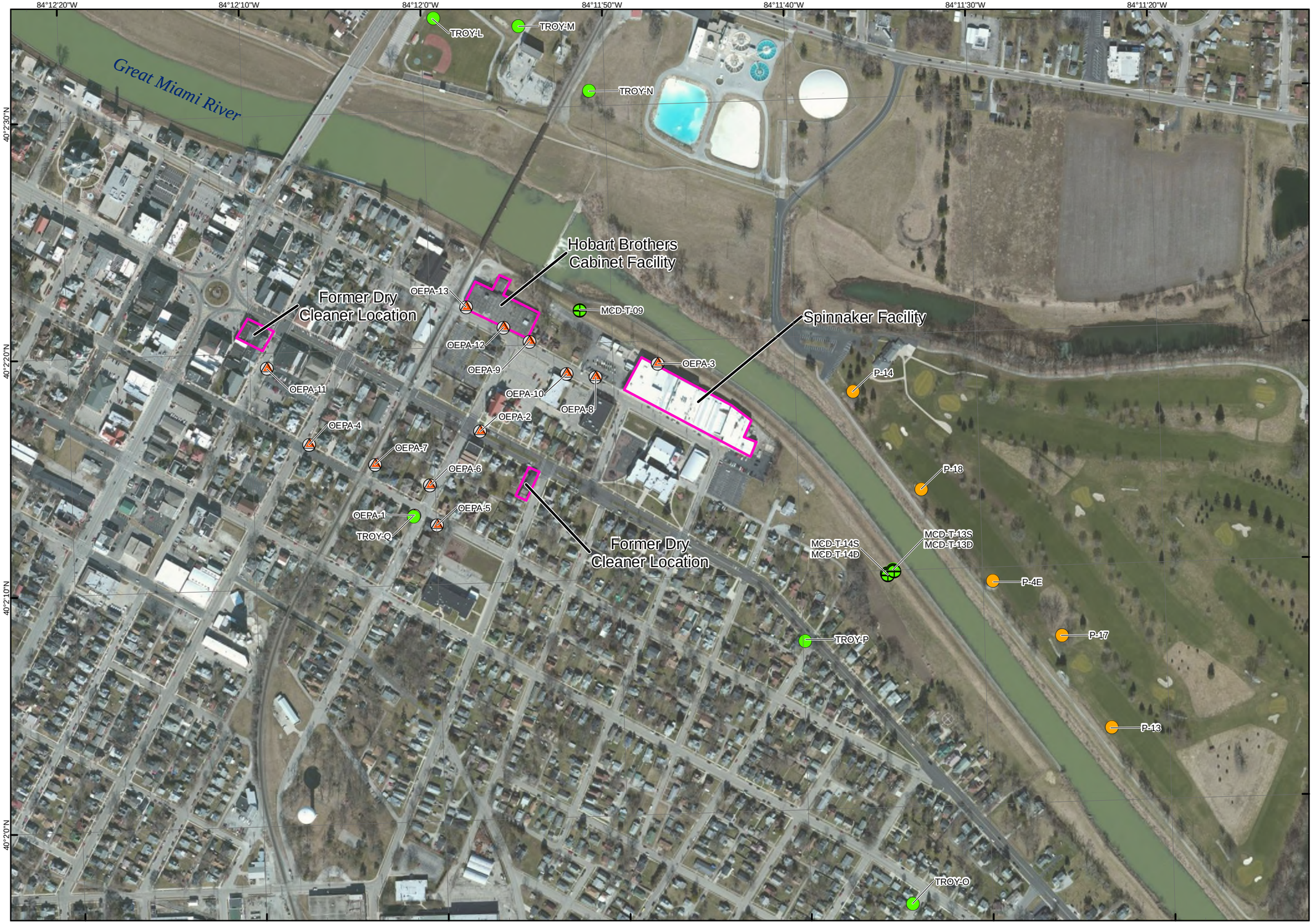
Figure 13: RI Phase II Vapor Intrusion Sampling Data, August-Sept 2012 and
April - May 2013

Figure 14: RI Phase I & II Soil Sample Results for VOCs

Figure 15: RI Phase I & II Soil Sample Results for VOCs, Hobart and Spinnaker
Areas

ETCA SITE RI/FS
Troy, Miami County, OH

Figure 1
RI Phase II
ETCA Site Location
and Features



Ohio EPA Well
Troy Monitoring Well
Troy Production Well
MCD Well

N

0 200 400 Feet

Notes:
D - Deep
ETCA - East Troy Contaminated Aquifer
MCD - Miami Conservation District
OEPA - Ohio Environmental Protection Agency
P - City of Troy Supply Well
RI/FS - Remediation Investigation/Feasibility Study
S - Shallow
T - Miami Conservancy District Monitoring Well

Date: 7/26/2013
Analyst: dale.vonbusch

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ETCA SITE RI/FS
Troy, Miami County, OH

Figure 2
Phase II RI
Sampling Locations

Ohio EPA Well
Phase I RI Well
Phase II RI Well
Troy Monitoring Well
KC Monitoring Well
MCD Well
Geoprobe Location
VAS Location
Phase II Soil Sample (February, 2013)
Vapor Intrusion Monitoring
Area Enlarged in Inset Map to Show Detail

N

0 200 400 Feet

Notes:
D - Deep
ETCA - East Troy Contaminated Aquifer
KMW - Kimberly Clark Well
OEPA - Ohio Environmental Protection Agency
PW - Production Well
RAC - Race Street
S - Shallow
VAS - Vertical Aquifer Sampling
Geoprobe samples FLO-1, FLO-2, MOR-1 are located outside the extent of this map.

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Analyst: dale.vonbusch

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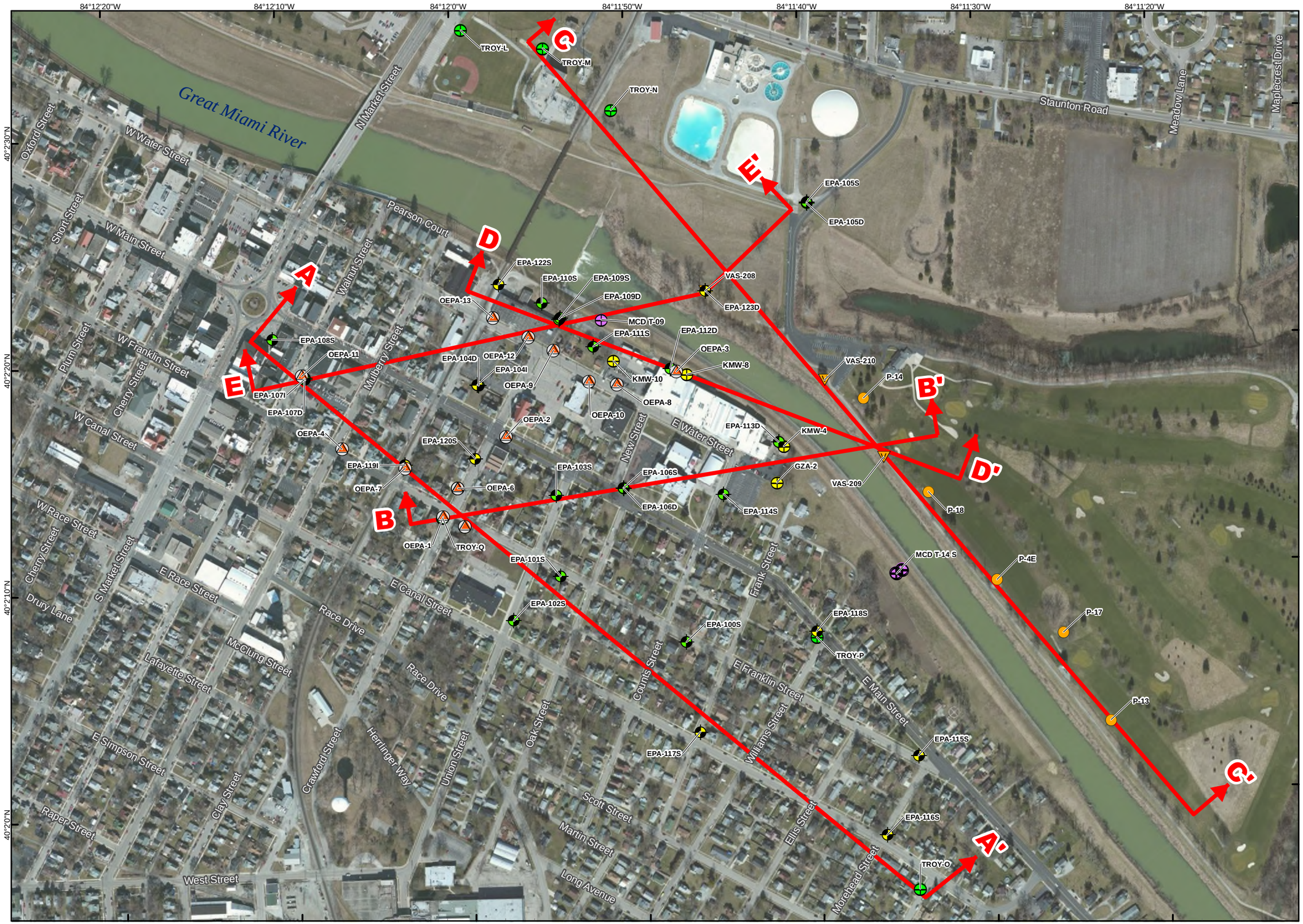
ETCA SITE RI/FS
Troy, Miami County, OH

Figure 3
Phase II RI
Cross Section Locations



Ohio EPA Well
Phase I RI Well
Phase II RI Well
Troy Monitoring Well
KC Monitoring Well
MCD Well
Troy Production Well
VAS Location
Cross Section

N

0 200 400 Feet

Notes:
D - Deep
ETCA - East Troy Contaminated Aquifer
FS - Feasibility Study
KMW - Kimberly Clark Well
OEPA - Ohio Environmental Protection Agency
PW - Production Well
RI - Remedial Investigation
S - Shallow
VAS - Vertical Aquifer Sampling

Date: 7/26/2013
Analyst: dale.vonbusch

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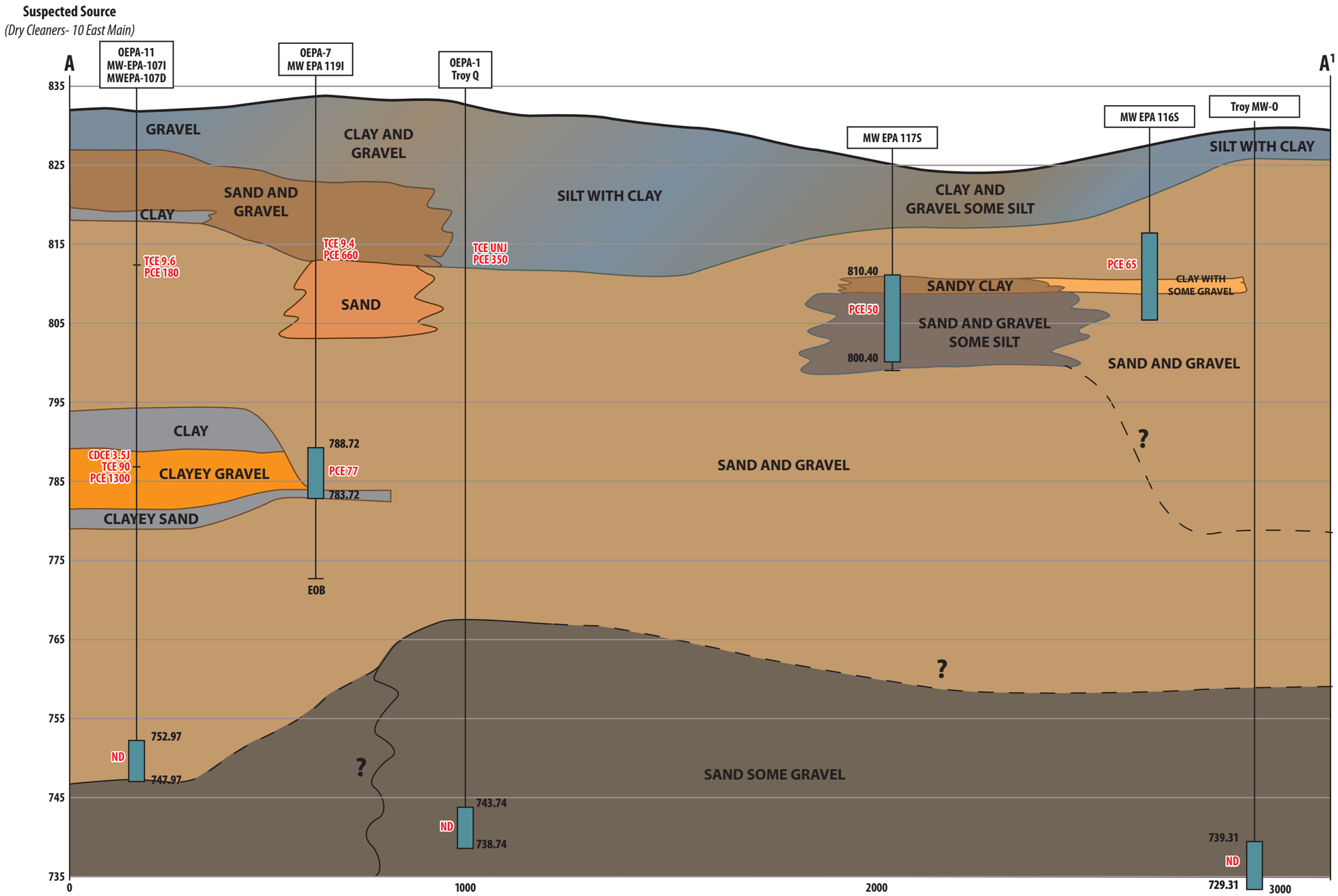


ETCA SITE RI/FS

Troy, Miami County, OH

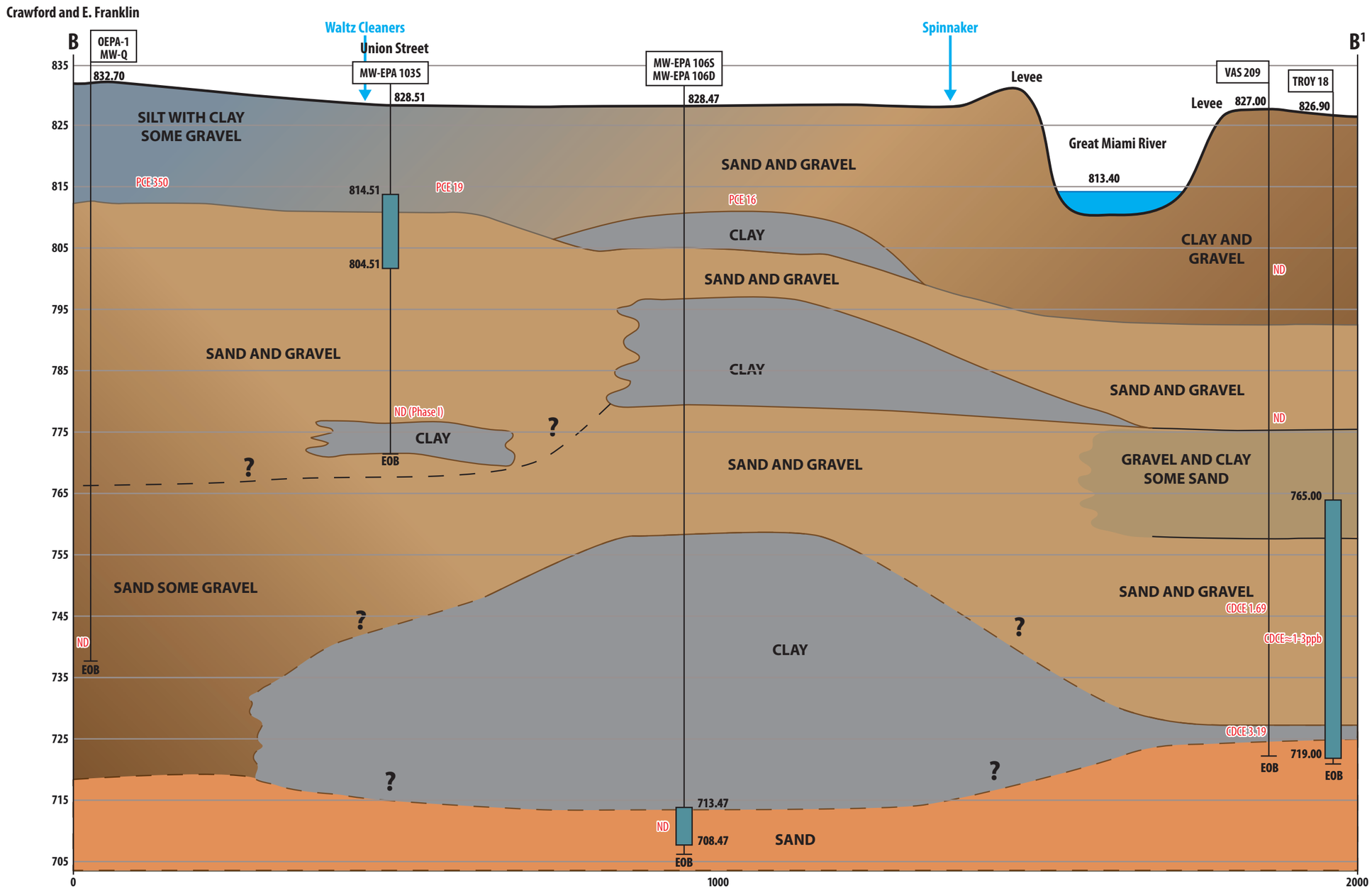
Figure 4

Generalized Geologic Cross Section A to A'

Notes:

DTW = Depth to Water
ETCA = East Troy Contaminated Aquifer
CDCE = cis-1,2-dichloroethene
TCE = Trichloroethene
PCE = Tetrachloroethene
RI/FS = Remedial Investigation/Feasibility Study

SulTRAC



ETCA SITE RI/FS

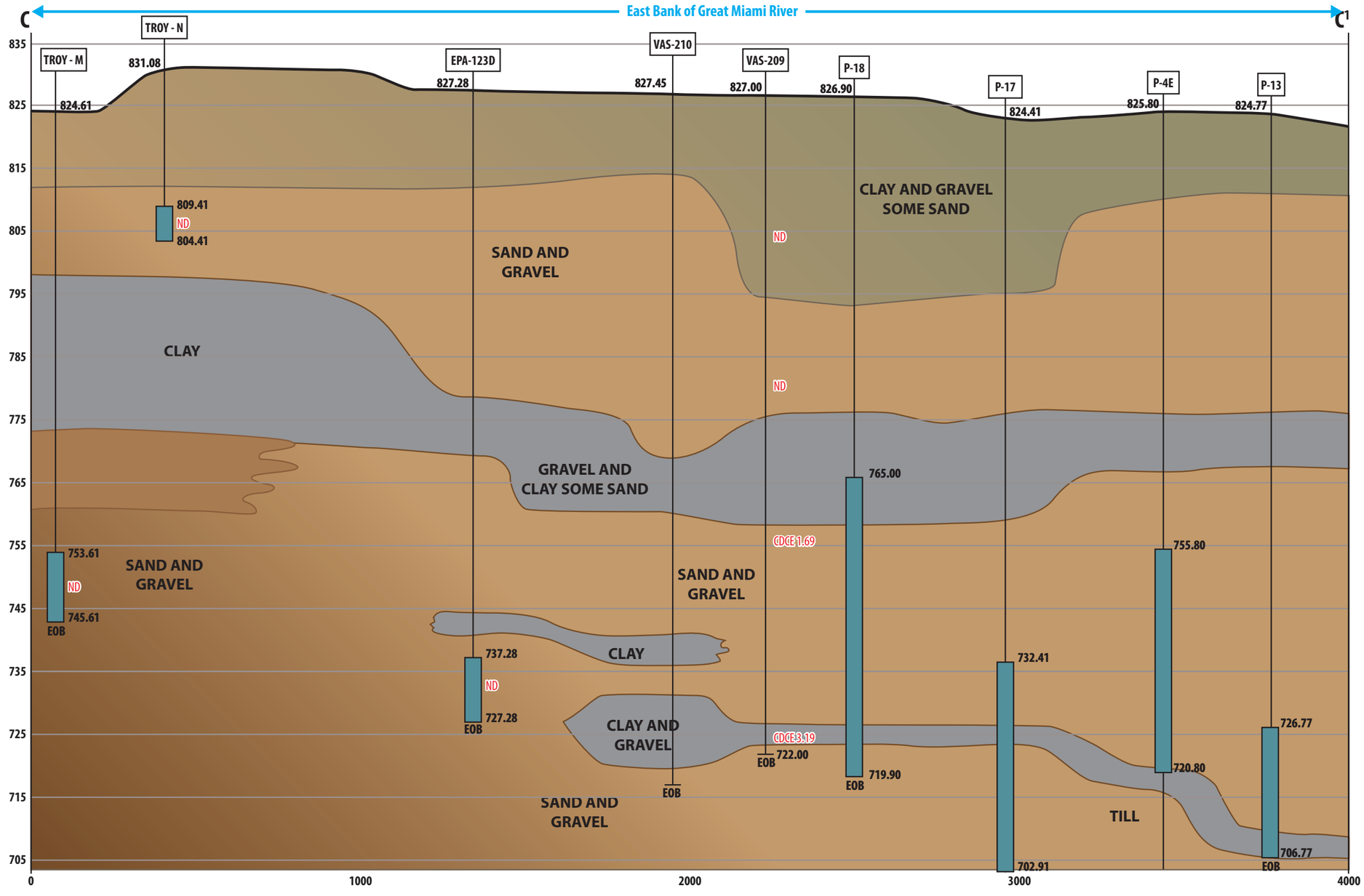
Troy, Miami County, OH

Figure 5
Generalized Geologic
Cross Section B to B'

Notes:

DTW = Depth to Water
ETCA = East Troy Contaminated Aquifer
CDCE = cis-1,2-dichloroethene
TCE = Trichloroethene
PCE = Tetrachloroethene
RI/FS = Remedial Investigation/Feasibility Study

SulTRAC



ETCA SITE RI/FS
Troy, Miami County, OH

Figure 6
Generalized Geologic
Cross Section C to C'

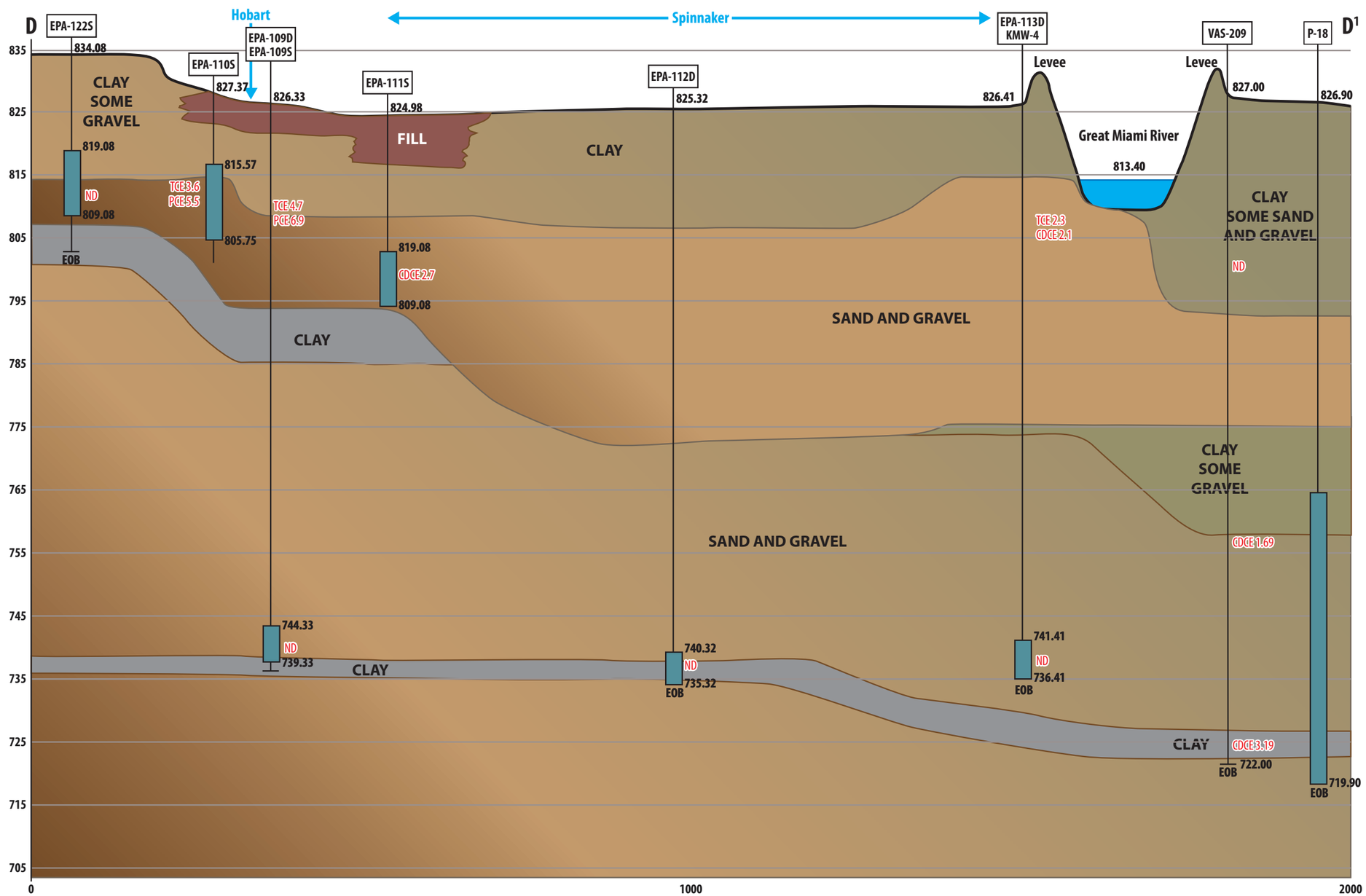
Notes:
DTW = Depth to Water
ETCA = East Troy Contaminated Aquifer
CDCE = cis-1,2-dichloroethene
TCE = Trichloroethene
PCE = Tetrachloroethene
RI/FS = Remedial Investigation/Feasibility Study

ST SulTRAC

ETCA SITE RI/FS

Troy, Miami County, OH

Figure 7
Generalized Geologic Cross Section D to D'



Notes:

DTW = Depth to Water
ETCA = East Troy Contaminated Aquifer
CDCE = cis-1,2-dichloroethene
TCE = Trichloroethene
PCE = Tetrachloroethene
RI/FS = Remedial Investigation/Feasibility Study

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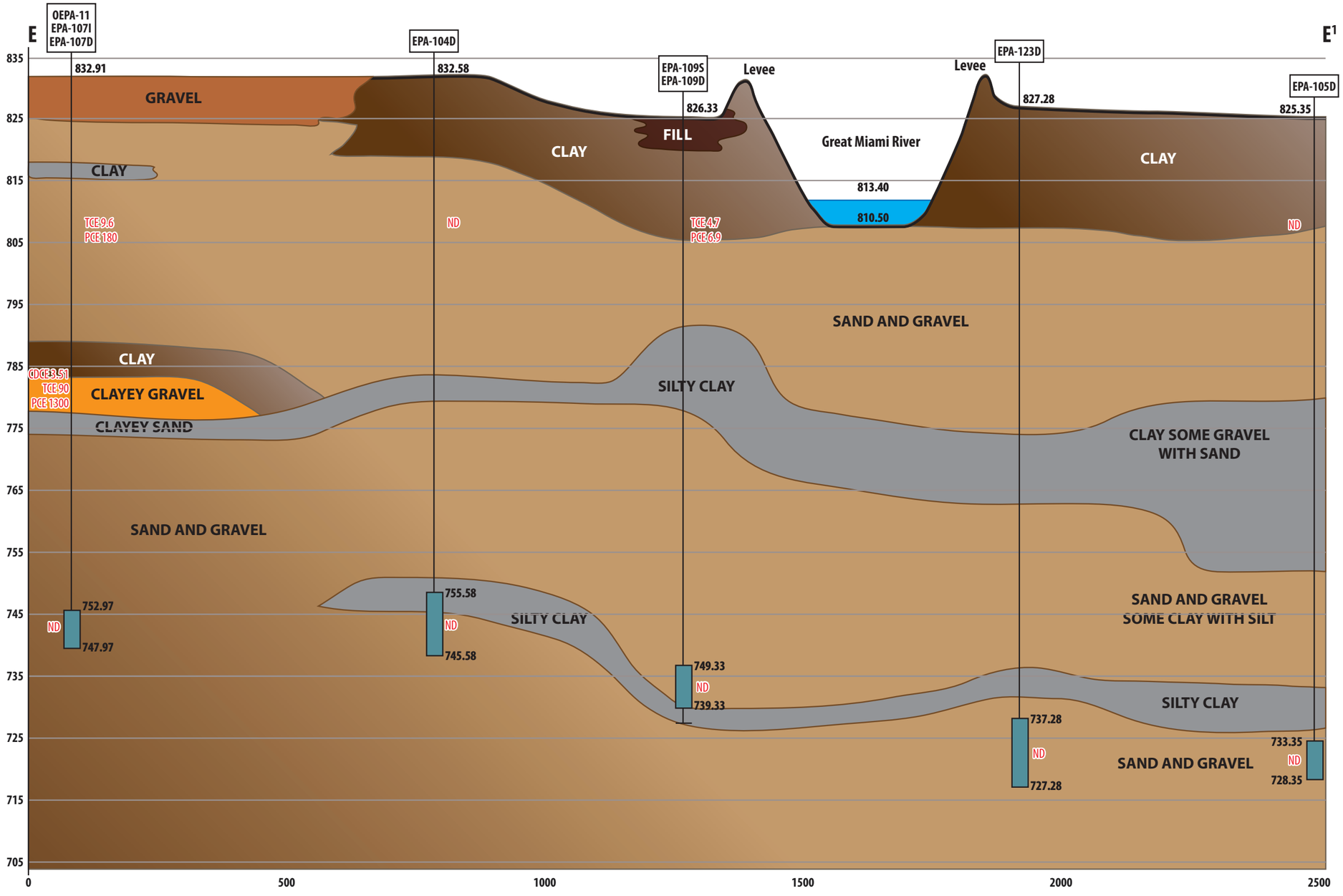
ETCA SITE RI/FS

Troy, Miami County, OH

Figure 8
Generalized Geologic Cross Section E to E'



Notes:

DTW = Depth to Water
ETCA = East Troy Contaminated Aquifer
CDCE = cis-1,2-dichloroethene
TCE = Trichloroethene
PCE = Tetrachloroethene
RI/FS = Remedial Investigation/Feasibility Study

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ETCA SITE RI/FS
Troy, Miami County, OH

Figure 9
RI Phase II
Shallow Zone
Groundwater Elevations
February 25, 2013

- Ohio EPA Well
- Phase I RI Well
- Phase II RI Well
- Troy Monitoring Well
- KC Monitoring Well
- MCD Well
- Apparent Groundwater Flow Direction February 25, 2013
- Interpolated Groundwater Contour
- Extrapolated Groundwater Contour

N

0 200 400
Feet

Notes:
ETCA - East Troy Contaminated Aquifer
KC - Kimberly Clark
KMW - Spinnaker Site/ Kimberly Clark Monitoring Well
MCD - Miami Conservation District
OEPA - Ohio Environmental Protection Agency
RI/FS - Remediation Investigation/Feasibility Study
S - Shallow
T - Miami Conservancy District Monitoring Well

Date: 7/26/2013
Analyst: dale.vonbusch

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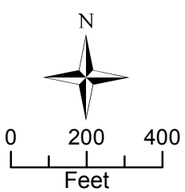
ETCA SITE RI/FS
Troy, Miami County, OH

Figure 10
RI Phase II
Deep Zone
Groundwater Elevations
February 25, 2013



- EPA Monitoring Well Installed for RI Phase I
- City of Troy Water Supply Production Well
- City of Troy Deep Monitoring Well
- Apparent Groundwater Flow Direction February 25, 2013
- Interpolated Groundwater Contour
- Extrapolated Groundwater Contour

Notes:
D - Deep
ETCA - East Troy Contaminated Aquifer
RI/FS - Remediation Investigation/Feasibility Study

Date: 7/25/2013
Analyst: dale.vonbusch

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ETCA SITE RI/FS
Troy, Miami County, OH

Figure 11
RI Phase II
Groundwater Sampling Data
Shallow Zone
December, 2012 and
February-March, 2013

- Ohio EPA Well
- Phase I RI Well
- Phase II RI Well
- Troy Monitoring Well
- KC Monitoring Well
- MCD Well
- Geoprobe Location
- Total Chlorinated VOCs >100 µg/L (ppb) Plume Area
- Total Chlorinated VOCs <100 µg/L (ppb) Plume Area

N

0 200 400
Feet

- Exceeds EPA VISL
- Exceeds EPA MCL
- Exceeds both MCL & VISL
- cis-1,2-DCE detected above reporting limit

Notes:
GZA - Spinnaker Site/ Kimberly Clark Monitoring Well
ETCA - East Troy Contaminated Aquifer
KC - Kimberly Clark
KMW - Spinnaker Site/ Kimberly Clark Monitoring Well
MCD - Miami Conservation District
MCL - Maximum Contaminant Level
OEPA - Ohio Environmental Protection Agency
RI/FS - Remediation Investigation/Feasibility Study
S - Shallow
T - Miami Conservancy District Monitoring Well
VAS - Vertical Aquifer Sample
VISL - Vapor Intrusion Screening Level
µg/L - Micrograms per liter
Groundwater sample concentrations in µg/L.
Geoprobe sample FLO-2 is located outside the extent of this map.

Date: 7/26/2013
Analyst: dale.vonbusch

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ETCA SITE RI/FS
Troy, Miami County, OH

Figure 12
RI Phase II
Groundwater Sampling Data
Intermediate-Deep Zones
February-March, 2013

Exceeds EPA VISL
Exceeds EPA MCL
Exceeds both MCL & VISL
cis-1,2-DCE detected above reporting limit

N

0 200
Feet

Notes:
D - Deep
ETCA - East Troy Contaminated Aquifer
I - Intermediate
MCL - Maximum Contaminant Level
RI/FS - Remediation Investigation/Feasibility Study
VAS - Vertical Aquifer Sample
VISL - Vapor Intrusion Screening Level
µg/L - Micrograms per liter
Groundwater sample concentraions in µg/L

Date: 7/26/2013
Analyst: dale.vonbusch

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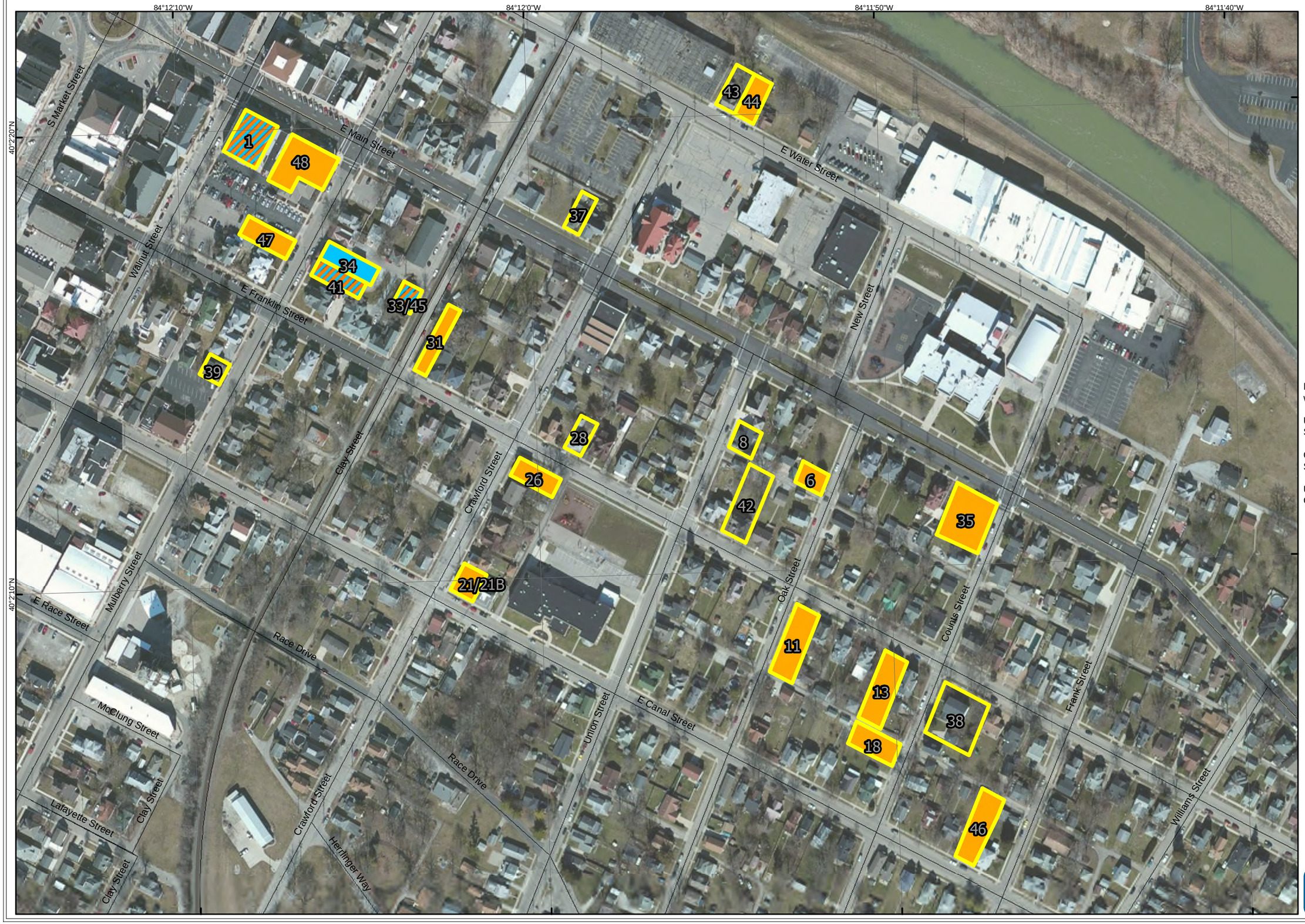

ETCA SITE RI/FS
Troy, Miami County, OH

Figure 13
RI Phase II
Vapor Intrusion
Sampling Data
August 2012
and
April-May 2013

Legend

- **Phase II VI Sampled Property With Sample Location Number**
- No Exceedence of Screening Level
- Indoor Air Exceedence
- Sub-Slab Exceedence
- Indoor Air and Sub-Slab Exceedence

Note: Screening Levels used were lowest of the following:

U.S. EPA
Screening Level, November 2012

Ohio Department of Health Site-Specific Sreening level, April 2012

U.S. EPA VI Screening Level Calculator accessed May 25, 2013

N

0 110 220 Feet

Date: Thursday, July 25, 2013
Analyst: dale.vonbusch

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ETCA SITE RI/FS
Troy, Miami County, OH

Figure 14
RI Phase I & II
Soil Sample Results
for VOCs

Phase I Soil Sample (May-June, 2012)

Phase II Soil Sample (February, 2013)

Hobart & Spinnaker Areas Shown on Figure 15

N

0 200 400 Feet

Notes:
CLY - Clay Street
ETCA - East Troy Contaminated Aquifer
RI/FS - Remediation Investigation/ Feasibility Study
SB - Soil Boring
STP - Saint Patrick Parking Lot
VOC - Volatile Organic Compound
µg/kg - Micrograms per kilogram

Soil sample concentrations in µg/kg

Date: 7/25/2013
Analyst: dale.vonbusch

SulTRAC

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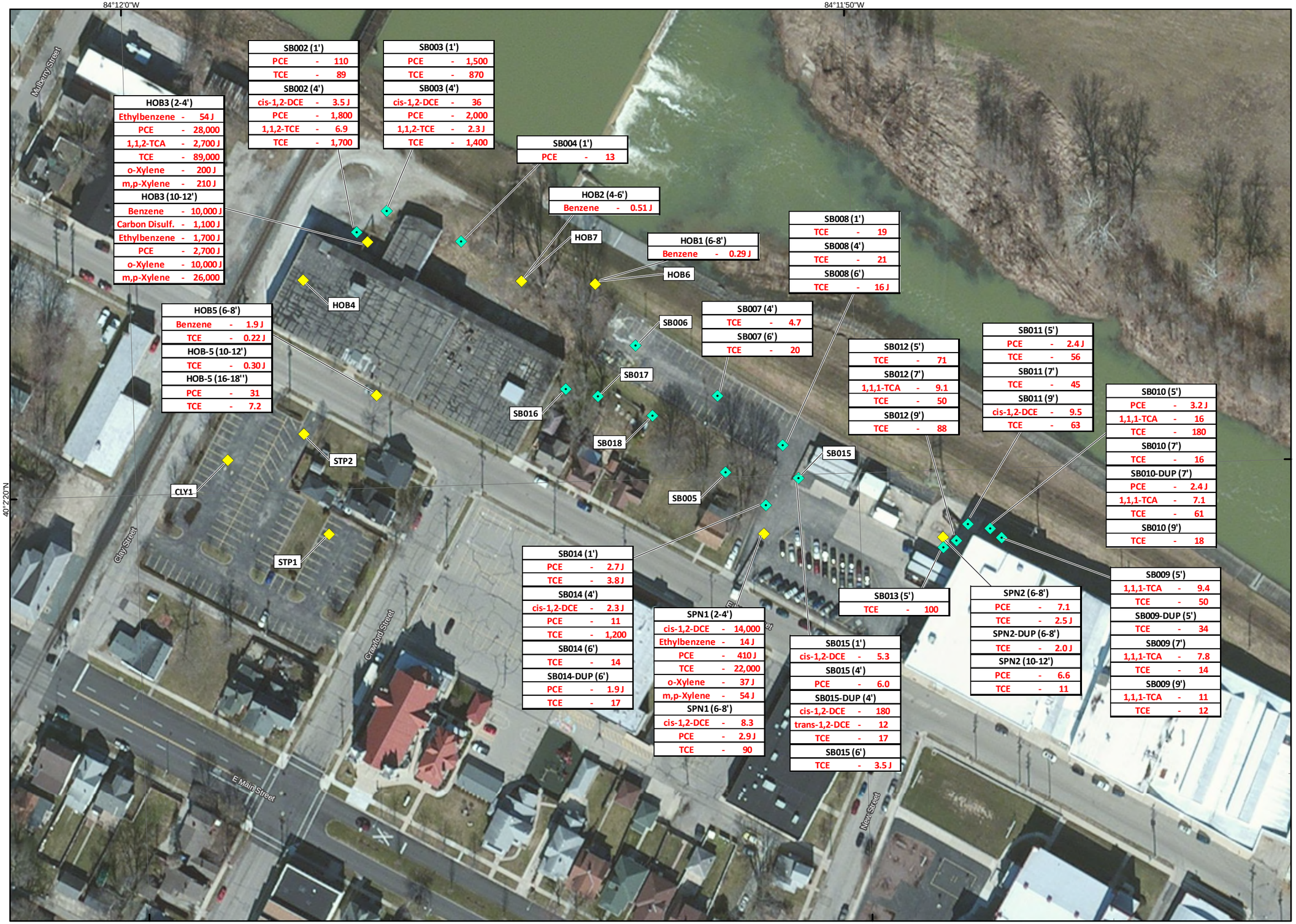
ETCA SITE RI/FS
Troy, Miami County, OH

Figure 15
RI Phase I & II
Soil Sample Results
for VOCs
Hobart and Spinnaker Areas



Phase I Soil Sample (May-June, 2012)

Phase II Soil Sample (February, 2013)

N

0 50 100 Feet

Notes:
ETCA - East Troy Contaminated Aquifer
HOB - Hobart Area
RI/FS - Remediation Investigation/ Feasibility Study
SB - Soil Boring
SPN - Spinnaker Area
VOC - Volatile Organic Compound
µg/kg - Micrograms per kilogram

Soil sample concentrations in µg/kg

Date: 7/25/2013
Analyst: dale.vonbusch

SulTRAC

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TABLES

Table 1: Summary of Groundwater Elevations – Phase II Groundwater Sampling, February 25, 2013

Table 2: Groundwater Potential Vertical Gradients and Relative VOC Concentrations – Paired Wells, RI Phase II Groundwater Sampling Event - February 2013

Table 3: Analytical Results for Volatile Organic Compounds in Groundwater, February and March 2013

Table 4: Screening Level Analytical Results for Groundwater in Shallow Soil Borings and Vertical Aquifer Sampling Programs, December 2012 and February 2013

Table 5: Analytical Results for Volatile Organic Compounds in Vapor Intrusion Samples, August 2012 and April – May 2013

Table 6: Analytical Results for Volatile Organic Compounds in Soil, February 2013

TABLE 1
EAST TROY CONTAMINATED AQUIFER SITE - TROY, OHIO
SUMMARY OF GROUNDWATER ELEVATIONS - PHASE II GROUNDWATER SAMPLING
February 25, 2013

Well ID	LOCATION	TOC EL (1)	TOC EL (2)	TD	DTW 02-25-13	GW EL 02-25-13	Zone
Ohio EPA Wells							
OEPA-1	SW Corner Franklin and Crawford; adj. to Troy MW-Q	832.46	832.43	24.7	16.97	815.46	S
OEPA-2	In grass median on Main at Crawford	830.89	830.84	19.7	15.31	815.53	S
OEPA-3	W end Spinnaker site, between plant and river	825.13	825.06	21.4	11.33	813.73	S
OEPA-4	NE Corner Franklin and Mulberry	833.22	833.17	27.4	17.22	815.95	S
OEPA-5	S side Franklin Appx. 75 ft SE of Crawford	830.29	830.27	27.2	14.92	815.35	S
OEPA-6	W side Crawford Appx. 75 feet N. of Franklin	831.62	831.58	27.2	16.07	815.51	S
OEPA-7	E side of Clay, about 75 ft. NE of Franklin	833.52	833.48	26.9	17.78	815.70	S
OEPA-8	NE side Water St., in front of Spinnaker west parking lot.	828.58	828.51	27.2	13.38	815.13	S
OEPA-9	NE side Water St., near Clay; front of residence	830.43	830.36	14.5	14.81	815.55	S
OEPA-10	SW side Water St., front of St. Patrick School	829.70	829.63	24.8	14.29	815.34	S
OEPA-11	SE Side Walnut St., between Main and Franklin near Police Dept.	833.33	833.29	27.3	17.03	816.26	S
OEPA-12	NE side Water St., between Clay and Crawford; E end Hobart Cab.	831.54	831.48	27.5	15.80	815.68	S
OEPA-13	NE side Water St., near Clay; W end of Hobart Cab.	833.68	833.62	27.4	17.80	815.82	S
City of Troy Wells							
MW-L	E side of river near SR 55; by baseball fields, NW of water plant	825.39	826.02	25.1	8.78	817.24	S
MW-M	E side of river near SR 55; by baseball fields, NW of water plant	824.61	825.54	81.0	8.64	816.90	D
MW-N	E side of river ; water plant; about 300 feet SE of MW-L/M cluster	831.08	831.79	31.7	15.54	816.25	S
MW-O	SW Corner Scott and Canal	829.31	829.21	100.1	17.08	812.13	D
MW-P	SW Corner Williams and Main	827.65	827.61	94.6	15.78	811.83	D
MW-Q	SW Corner Franklin and Crawford; adj. to OEPA-1	832.70	832.70	94.0	17.28	815.42	D
PW-14	East Wellfield; northernmost production well	827.65	NM	124.0	16.31	811.34	D
PW-18	East Wellfield; about 300 feet SE of PW-14	826.90	NM	101.0	29.91	796.99	D
P-4E	East Wellfield; about 300 feet SE of PW-18	825.80	NM	105.0	14.88	810.92	D
P-17	East Wellfield; about 300 feet SE of P-4	824.41	NM	122.0	13.97	810.44	D
P-13	East Wellfield; about 300 feet SE of P-17	824.77	NM	118.0	22.65	802.12	D
P-21	East Wellfield - piezometer - downstream end	820.99	NM	100.0	9.98	811.01	D
Kimberly Clark (Spinnaker) Wells							
KMW-1	Spinnaker E. End	825.53	NM	22.5	12.92	812.61	S
KMW-4	Spinnaker E. End	826.47	826.56	20.5	14.25	812.31	S
GZA-2	Spinnaker E. End - parking area	826.71	826.75	25.5	14.08	812.67	S
KMW-10	Spinnaker W. End	826.97	NM	20.5	11.86	815.11	S
KMW-17	Spinnaker W. End	825.11	NM	20.5	11.35	813.76	S
KMW-15	Spinnaker W. End	827.59	NM	22.5	13.36	814.23	S
KMW-8	Spinnaker W. End	825.32	NM	30.5	11.81	813.51	S
RS-04	Spinnaker W. End	825.39	NM	20.4	11.98	813.41	S
MCD Piezometers							
MCD T-09	Top Levee, behind Hobart Cabinet	833.00	834.04	29.4	19.62	814.42	S
MCD T-13S	Top Levee, near end of Williams Street	831.49		29.3			
MCD-T-14S	Base of Levee, near end of Williams Street	821.24	822.40	19.0	11.38	811.02	S
US EPA Phase I and II Wells							
MW-EPA-100S	East Franklin, east of Counts		826.35	25.0	12.63	813.72	S
MW-EPA-101S	East Franklin, between Union and Oak		827.99	25.0	13.12	814.87	S
MW-EPS-102S	South Union, near Race		827.29	24.0	12.27	815.02	S
MW-EPA-103S	South Union, near East Main		828.51	24.0	13.41	815.10	S
MW-EPA104I	Alley between Clay and Crawford, near St. Patrick parking		832.96	43.0	17.17	815.79	I
MW-EPA-104D	Alley between Clay and Crawford, near St. Patrick parking		832.58	87.0	17.02	815.56	D
MW-EPA-105S	Rutherford Dr. (East of River)		825.17	22.0	10.83	814.34	S
MW-EPA-105D	Rutherford Dr. (East of River)		825.35	97.0	11.12	814.23	D
MW-EPA-106S	NE Corner New and E. Main		828.58	21.0	13.91	814.67	S
MW-EPA-106D	NE Corner New and E. Main		828.47	120.0	15.04	813.43	D
MW-EPA-107I	South Walnut - between Main and Franklin - near OEPA-11		833.38	53.0	17.14	816.24	I
MW-EPA-107D	South Walnut - between Main and Franklin - near OEPA-11		832.97	85.0	16.66	816.31	D
MW-EPA-108S	(Background) - East side of town square - near East Main		833.32	25.0	16.76	816.56	S
MW-EPA-109S	Hobart - east end		826.72	22.0	11.17	815.55	S
MW-EPA-109D	Hobart - east end		826.33	87.0	11.17	815.16	D
MW-EPA-110S	Hobart - west		827.37	22.0	11.74	815.63	S
MW-EPA-111S	Vacant lot between Hobart and Spinnaker		824.98	30.0	9.84	815.14	S
MW-EPA-112D	Spinnaker west end - near OEPA-2		825.32	90.0	10.65	814.67	D
MW-EPA-113D	Spinnaker east end - near KMW-4		826.41	90.0	13.61	812.80	D
MW-EPA-114S	School facilities lot - E. side of Frank between Water and Main		827.44	23.0	14.00	813.44	S
MW-EPA-115S	East Franklin at E. Main st opposite Morehead St		827.32	23.0	13.93	813.39	S
MW-EPA-116S	NE Corner Morehead and E. Canal		828.54	25.0	16.27	812.27	S
MW-EPA-117S	NE Corner Frank and E. Canal		824.40	24.0	10.68	813.72	S
MW-EPA-118S	SW corner E. Main and Williams, near Troy MW-P		827.41	24.0	13.16	814.25	S
MW-EPA-119I	E side of Clay, about 75 ft. NE of Franklin-near OEPA 7		833.72	50.0	17.99	815.73	I
MW-EPA-120S	W side of S Crawford, about 75 ft. S of E. Main		830.55	24.0	14.99	815.56	S
MW-EPA-122S	Hobart- west end near RR tracks		834.08	25.0	18.17	815.91	S
MW-EPA-123D	Rutherford Dr (east of river) about 500 ft. NW of golf course parking lot		827.28	100.0	12.56	814.72	D

NOTES:

USEPA wells surveyed to horizontal position by Haley-Dusa Surveying group, LLC
D - Deep zone
DTW - depth to water
GW EL - groundwater elevation
I - Intermediate zone
MCD - Miami Conservancy District
S - Shallow zone
TD - total depth
TOC EL - elevation of top of inner casing/ measurement point (notes refer to (1) pre-RI well survey datareported by other entities or (2) elevations field surveyed during RI 2012-2013.
NM - Not Measured

TABLE 2
EAST TROY CONTAMINATED AQUIFER SITE - TROY, OHIO
GROUNDWATER POTENTIAL VERTICAL GRADIENTS AND RELATIVE VOC CONCENTRATIONS - PAIRED WELLS
RI Phase II Groundwater Sampling Event - February 2013

Well ID Cluster	GW EL 02-25-13	Gradient (ft)	TCE	PCE	cis-1,2-Dichloroethene
			Reported Concentration - µg/L		
EPA-107I	816.24	0.07 Upward	90	1300	3.5
EPA-107D	816.31		ND	ND	ND
OEPA 11	816.26	0.02 Downward	9.6	180	ND
EPA-107I	816.24		90	1300	3.5
OEPA 11	816.26	0.05 Upward	9.6	180	ND
EPA-107D	816.31		ND	ND	ND
EPA-104I	815.79	0.23 Downward	ND	ND	ND
EPA-104D	815.56		ND	ND	ND
EPA-105S	814.34	0.11 Downward	ND	ND	ND
EPA-105D	814.23		ND	ND	ND
EPA-106S	814.67	1.24 Downward	ND	16	ND
EPA-106D	813.43		ND	ND	ND
EPA-109S	815.55	0.39 Downward	4.7	6.9	ND
EPA-109D	815.16		ND	ND	ND
OEPA 3	813.73	0.94 Upward	ND	ND	ND
EPA-112D	814.67		ND	ND	ND
KMW 4	812.31	0.49 Upward	2.3	ND	2.1
EPA-113D	812.80		ND	ND	ND
OEPA 7	815.70	0.03 Upward	9.4	660	ND
EPA-119I	815.73		ND	77	ND
OEPA 1	815.46	0.04 Downward	4.5	350	ND
Troy Q	815.42		ND	ND	ND
EPA-118S	814.25	2.42 Downward	ND	ND	ND
Troy P	811.83		ND	ND	ND
Troy L	817.24	0.34 Downward	ND	ND	ND
Troy M	816.90		ND	ND	ND

ND - not detected
GW EL - groundwater elevation measured on February 25, 2013
TCE- trichloroethene- concentrations from February-March 2013 sampling event
PCE- tetrachloroethene - concentrations from February-March 2013 sampling event
µg/L- micrograms per liter or parts per billion (ppb)

TABLE 3
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
EAST TROY CONTAMINATED AQUIFER
FEBRUARY AND MARCH 2013

Sample Location	MW-OEPA-3-0213	MW-KMW-8-0213	MW-EPA-112D-0213	MW-KMW-10-0213	MW-GZA-2-0213	MW-KMW-4-0213	MW-KMW-4-0213-DUP	MW-EPA-114S-0213	MW-EPA-113D-0213	RBCT022613 Rinsate Blank	RBLF22613 Rinsate Blank	MW-EPA-111S-0213	MW-OEPA-8S-0213	MW-OEPA-10-0213
Sample Number	E3ZP0	E3ZP1	E3ZP2	E3ZP3	E3ZP4	E3ZP5	E3ZP6	E3ZP7	E3ZP8	E3ZP9	E3ZQ0	E3ZQ1	E3ZQ2	E3ZQ3
Sample Date	2/26/2013	2/26/2013	2/26/2013	2/26/2013	2/26/2013	2/26/2013	2/26/2013	2/26/2013	2/26/2013	2/26/2013	2/26/2013	2/27/2013	2/27/2013	2/27/2013
Sample Time	1220	1050	1127	1250	1444	1445	1445	1536	1715	1645	1740	1015	1025	1119
LABORATORY PARAMETERS:														
Volatile Organic Compounds (VOC) - µg/L														
Dichlorodifluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-Butyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.1 J	2.3 J	5.0 U	5.0 U	5.0 U	5.0 U	2.7 J	9.9	2.3 J
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.3 J	2.5 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5.0 U	5.0 U	5.0 U	14	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	23	5.0 U	5.0 U	25	5.0 U	5.0 U	5.0 U	5.0 U	2.3 J	7
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m,p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

Exceeds U.S. Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) calculator groundwater screening level
Exceeds EPA Maximum Contaminant Level (MCL)
Exceeds both MCL and VISL groundwater screening levels
cis-1,2-Dichloroethene detected above laboratory reporting limit

µg/L = micrograms per liter

U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R = The data are unusable. (The compound may or may not be present.)

TABLE 3
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
EAST TROY CONTAMINATED AQUIFER
FEBRUARY AND MARCH 2013

Sample Location	MW-EPA-109D-0213	MW-OEPA-9-0213	MW-EPA-109S-0213	TRIPBLANK022713	MW-OEPA-12-0213	MW-EPA-110S-0213	MW-OEPA-13-0213	MW-EPA-122S-0213	RBBH0227103 Rinsate Blank	MW-EPA-123D-0213	MW-EPA-105D-0213	MW-TROY-N-0213	MW-EPA-105S-0213
Sample Number	E3ZQ4	E3ZQ5	E3ZQ6	E3ZQ7	E3ZQ8	EXZQ9	E3ZR0	E3ZR1	E3ZR2	E3ZR3	E3ZR4	E3ZR5	E3ZR6
Sample Date	2/27/2013	2/27/2013	2/27/2013	2/27/2013	2/27/2013	2/27/2013	2/27/2013	2/27/2013	2/27/2013	2/28/2013	2/28/2013	2/28/2013	2/28/2013
Sample Time	1205	1358	1340	1558	1502	1510	1558	1615	1635	1045	1150	1320	1255
LABORATORY PARAMETERS:													
Volatile Organic Compounds (VOC) - µg/L													
Dichlorodifluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
Carbon disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-Butyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 U
Bromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R
Trichloroethene	5.0 U	11	4.7 J	5.0 U	50	3.6 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U
1,1,2-Trichloroethane	5.0 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 U
Tetrachloroethene	5.0 U	17	6.9	5.0 U	42	5.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m,p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

Exceeds U.S. Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) calculator groundwater screening level
Exceeds EPA Maximum Contaminant Level (MCL)
Exceeds both MCL and VISL groundwater screening level
cis-1,2-Dichloroethene detected above laboratory reporting limit

µg/L = micrograms per liter

U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R = The data are unusable. (The compound may or may not be present.)

TABLE 3
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
EAST TROY CONTAMINATED AQUIFER
FEBRUARY AND MARCH 2013

Sample Location	TRIPBLANK022813	MW-TROY-M-0213	MW-MCD-T-09-0213	MW-TROY-L-0213	MW-TROY-L-0213-DUP	MW-MCD-T-14S-0213	RBBH22813 Rinsate Blank	RBCT22813 Rinsate Blank	MW-OEPA-11-0313	MW-EPA-107D-0313	MW-EPA-107I-0313	MW-OEPA-4-0313	RBBH030113 Rinsate Blank
Sample Number	E3ZR7	E3ZR8	E3ZR9	E3ZS0	E3ZS1	E3ZS2	E3ZS3	E3ZS4	E3ZS5	E3ZS6	E3ZS7	E3ZS8	E3ZS9
Sample Date	2/28/2013	2/28/2013	2/28/2013	2/28/2013	2/28/2013	2/28/2013	2/28/2013	2/28/2013	3/1/2013	3/1/2013	3/1/2013	3/1/2013	3/1/2013
Sample Time	1434	1500	1518	1600	1600	1610	1630	1630	1024	1105	1200	1152	1330
LABORATORY PARAMETERS:													
Volatile Organic Compounds (VOC) - µg/L													
Dichlorodifluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	10 UJ	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U
Carbon disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Methyl tert-Butyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	2.2 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.5 J	5.0 U	5.0 U
2-Butanone	10 UJ	10 UJ	10 UJ	10 U	10 U	10 U	10 U	10 U	10 UJ	10 U	10 U	10 U	10 U
Bromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	9.6	5.0 U	90	5.0 U	5.0 U
Methylcyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.0 J
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	9.1	5.0 U	5.0 U	180	5.0 U	1300	11	5.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m,p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

Exceeds U.S. Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) calculator groundwater screening level
Exceeds EPA Maximum Contaminant Level (MCL)
Exceeds both MCL and VISL groundwater screening level
cis-1,2-Dichloroethene detected above laboratory reporting limit

µg/L = micrograms per liter

U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R = The data are unusable. (The compound may or may not be present.)

TABLE 3
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
EAST TROY CONTAMINATED AQUIFER
FEBRUARY AND MARCH 2013

Sample Location	RBCT030113 Rinsate Blank	MW-OEPA-2-0313	MW-OEPA-7-0313	TRIPBLANK030113	MW-EPA-108S-0313	MW-EPA-119I-0313	MW-EPA-104I-0313	MW-EPA-103S-0313	MW-EPA-101S-0313	MW-EPA-104D-0313	MW-EPA-100S-0313	MW-EPA-100S-0313-DUP	MW-EPA-120S-0313
Sample Number	E3ZT0	E3ZT1	E3ZT2	E3ZT3	E3ZT4	E3ZT5	E3ZT6	E3ZT7	E3ZT8	E3ZT9	E3ZW0	E3ZW1	E3ZW2
Sample Date	3/1/2013	3/1/2013	3/1/2013	3/1/2013	3/4/2013	3/4/2013	3/4/2013	3/4/2013	3/4/2013	3/4/2013	3/4/2013	3/4/2013	3/4/2013
Sample Time	1332	1442	1450	1538	1055	1130	1229	1310	1430	1445	1605	1605	1618
LABORATORY PARAMETERS:													
Volatile Organic Compounds (VOC) - µg/L													
Dichlorodifluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-Butyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.5 J	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R
Trichloroethene	5.0 U	5.0 U	9.4	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2.7 J	5.0 U	2.3 J	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	5.0 U	5.0 U	660	5.0 U	5.0 U	77	5.0 U	19	470	5.0 U	21	22	2.9 J
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m,p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

Exceeds U.S. Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) calculator groundwater screening level
Exceeds EPA Maximum Contaminant Level (MCL)
Exceeds both MCL and VISL groundwater screening level
cis-1,2-Dichloroethene detected above laboratory reporting limit

µg/L = micrograms per liter

U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R = The data are unusable. (The compound may or may not be present.)

TABLE 3
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
EAST TROY CONTAMINATED AQUIFER
FEBRUARY AND MARCH 2013

Sample Location	RBBH030413 Rinsate Blank	RBCT030413 Rinsate Blank	TRIPBLANK030513	MW-EPA-115S-0313	MW-EPA-1155-0313-DUP	MW-EPA-118S-0313	MW-EPA-116S-0313	MW-TROY-P-0313	MW-EPA-117S-0313	MW-EPA-106S-0313	MW-EPA-106S-0313-DUP	MW-OEPA-6-0313
Sample Number	E3ZW3	E3ZW4	E3ZW5	E3ZW6	E3ZX6	E3ZW7	E3ZW8	E3ZW9	E3ZX0	E3ZX1	E3ZX2	E3ZX3
Sample Date	3/4/2013	3/4/2013	3/5/2013	3/5/2013	3/5/2013	3/5/2013	3/5/2013	3/5/2013	3/5/2013	3/5/2013	3/5/2013	3/5/2013
Sample Time	1635	1640	1028	1100	1100	1118	1220	1442	1445	1553	1553	1610
LABORATORY PARAMETERS:												
Volatile Organic Compounds (VOC) - µg/L												
Dichlorodifluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 R	10 UJ
Carbon disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-Butyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 U	10 U	10 U	10 U	10 U	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 R	10 UJ
Bromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	14	14	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.5 J
Methylcyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.9	6.6	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
1,1,2-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	65	5.0 U	50	16	17	650
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	4.7 J	4.8 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m,p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	1.7 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

Exceeds U.S. Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) calculator groundwater screening level
Exceeds EPA Maximum Contaminant Level (MCL)
Exceeds both MCL and VISL groundwater screening level
cis-1,2-Dichloroethene detected above laboratory reporting limit

µg/L = micrograms per liter

U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R = The data are unusable. (The compound may or may not be present.)

TABLE 3
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
EAST TROY CONTAMINATED AQUIFER
FEBRUARY AND MARCH 2013

Sample Location	RBCT030513 Rinsate Blank	RBBH030513 Rinsate Blank	MW-EPA-102S-0313	MW-TROY-O-0313	MW-EPA-106D-0313	MW-EPA-106D-0313-DUP	MW-OEPA-1-0313	MW-TROY-Q-0313	RBCT030613 Rinsate Blank	RBBH030613 Rinsate Blank	TRIPBLANK030613
Sample Number	E3ZX4	E3ZX5	E3ZX7	E3ZX8	E3XZ9	E3ZY0	E3ZY1	E3ZY2	E3ZY3	E3ZY4	E3YZ5
Sample Date	3/5/2013	3/5/2013	3/6/2013	3/6/2013	3/6/2013	3/6/2013	3/6/2013	3/6/2013	3/6/2013	3/6/2013	3/6/2013
Sample Time	1630	1635	1135	1537	1242	1242	1530	1415	1605	1600	1603
LABORATORY PARAMETERS:											
Volatile Organic Compounds (VOC) - µg/L											
Dichlorodifluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl Chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl tert-Butyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone	10 UJ	10 U	10 UJ	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Bromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,1-Trichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dioxane	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R	100 R
Trichloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.4 J	5.0 U	5.0 U	5.0 U	5.0 U
Methylcyclohexane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ
4-Methyl-2-pentanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ
1,1,2-Trichloroethane	5.0 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ
Tetrachloroethene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	350	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
o-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
m,p-Xylene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

Exceeds U.S. Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) calculator groundwater screening level
Exceeds EPA Maximum Contaminant Level (MCL)
Exceeds both MCL and VISL groundwater screening level
cis-1,2-Dichloroethene detected above laboratory reporting limit

µg/L = micrograms per liter

U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R = The data are unusable. (The compound may or may not be present.)

TABLE 4
SCREENING-LEVEL ANALYTICAL RESULTS FOR GROUNDWATER IN SHALLOW SOIL BORINGS AND VERTICAL AQUIFER SAMPLING PROGRAMS
EAST TROY CONTAMINATED AQUIFER
DECEMBER 2012 AND FEBRUARY 2013

Sample Location	BW014-MAI-20-1212	BW012-WIL-15-1212	BW011-MAI-15-1212	BW009-COV-16-1212	BW010-COV-15-1212	BW008-NEW-15-1212	BW006-CRA-17-1212	EB-001-1212	TRIP BLANK	BW002-MAI-19-1212	BW001-WAL-18-1212	BW004-MUL-16-1212	BW004-MUL-16-1212-DUP	BW005-MUL-15-1212	BW003-MAI-19-1212	BW007-CRA-15-1212	BW013-MCD-11-1212
Location Description	South side of East Main St.; mid-way between East Franklin and Floral Ave.	East side of Williams St. between East Franklin and East Canal St.	North side of East Main St. between Williams and Frank St.	East side of South Counts St. between East Franklin and East Canal St.	East side of South Counts St. between East Main and East Franklin St.	West curb of New St. between East Main and East Water St.	West side of South Crawford St. mid-way between monitoring wells OEPA-6 and OEPA-2	Equipment/field blank collected form peristaltic pump dishcarge line	Trip blank sample that accompanied field samples in cooler	Parking space on South side of East Main St., in front of the First Presbyterian Church addition	West side of South Walnut St. across the street from monitoring wells OEPA-11, EPA 107I and 107D	West side of South Walnut St. across the street from monitoring wells OEPA-11, EPA107I and 107D	West side of South Walnut St. across the street from monitoring wells OEPA-11, EPA107I and 107D	South Mulberry St. just South of East Franklin	West curb of North Mulberry St. at intersection with East Main St.	South Crawford St. approx. 150-ft. South of the East Franklin intersection	Base of the Great Miami River levee on Miami Conservancy District property approx. 300-ft. East/downstream from the northern terminus of Williams St.
Sample Date	12/17/2012	12/17/2012	12/17/2012	12/17/2012	12/17/2012	12/17/2012	12/17/2012	12/17/2012	12/17/2012	12/19/2012	12/19/2012	12/19/2012	12/19/2012	12/19/2012	12/19/2012	12/19/2012	12/19/2012
Sample Time	1310	1550	1455	940	1045	1135	1345	1530		957	1100	1200	1200	1335	1445	1530	1650
Volatile Organic Compound (VOC)		Dilution Factor			Dilution Factor							Dilution Factor	Dilution Factor				
µg/L		2			10							10	10				
Acetone	<10.0	<20.0	<10.0	<10.0	<100	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
Benzene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Dichlorobromomethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Bromoform	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Bromomethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
2-Butanone (MEK)	<10.0	<20.0	<10.0	<10.0	<100	<10.0	<10.0	16.2	<1.00	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
Carbon disulfide	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Chlorobenzene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Chloroethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Chloroform	<1.00	<2.00	10.5	<1.00	<10.0	1.74	2.24	<1.00	<1.00	4.14	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Chloromethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Ethylbenzene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
2-Hexanone	<10.0	<20.0	<10.0	<10.0	<100	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
Methylene Chloride	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
4-Methyl-2-pentanone (MIBK)	<10.0	<20.0	<10.0	<10.0	<100	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
Styrene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	<1.00	47.6	<1.00	4.05	224	6.64	2.78	<1.00	<1.00	<1.00	11.4	238	249	<1.00	<1.00	3.46	<1.00
Toluene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Trichloroethene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Vinyl chloride	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	<2.00	<4.00	<2.00	<2.00	<20.0	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<20.0	<20.0	<2.00	<2.00	<2.00	<2.00
1,1,1-Trichloroethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Cyclohexane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	<2.00	<4.00	<2.00	<2.00	<20.0	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<20.0	<20.0	<2.00	<2.00	<2.00	<2.00
Ethylene Dibromide	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
cis-1,2-Dichloroethene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Methyl acetate	<10.0	<20.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<100	<100	<10.0	<10.0	<10.0	<10.0
Methyl tert-butyl ether	<5.00	<10.0	<5.00	<5.00	<50.0	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<50.0	<50.0	<5.00	<5.00	<5.00	<5.00
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00
Methylcyclohexane	<1.00	<2.00	<1.00	<1.00	<10.0	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<10.0	<10.0	<1.00	<1.00	<1.00	<1.00

Notes:
Exceeds U.S. Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) calculator groundwater screening level
Exceeds EPA Maximum Contaminant Level (MCL)
Exceeds both MCL and VISL groundwater screening level
Detected above laboratory reporting limit
µg/L = Micrograms per Liter
Groundwater samples were collected in Geoprobe borings at first observed groundwater, between 11 and 20 feet below ground surface.

TABLE 4
SCREENING-LEVEL ANALYTICAL RESULTS FOR GROUNDWATER IN SHALLOW SOIL BORINGS AND VERTICAL AQUIFER SAMPLING PROGRAMS
EAST TROY CONTAMINATED AQUIFER
DECEMBER 2012 AND FEBRUARY 2013

Sample Location	FLO-1-18-0213	FLO-2-16-0213	FRA-1-12-0213	MOR-1-20-0213	WAL-1-20-0213	EB-1-12-0213	TRIP BLANK	WAL-2-20-0213	BW-012-WAT-15-0213	BW013-WAT-12-0213	MAI-1-20-0213	BW014-SPN-20-0213	EB-13-0213	TRIP BLANK	BW017-SPN-14-0213	BW018-SPN-14-0213	BW021-SPN-14-0213	EB3-14-0213	TRIP BLANK
Location Description	N side of the intersection of Canal and Floral	Floral Ave approximately 400 ft SW of Canal Street	Corner of Franklin and Morehead	W side of Morehead N of intersection w/ Scott	SW corner of Walnut and Franklin	Equipment Blank	Trip Blank	E Side of Walnut St 50 ft S of E Main St	Vacant lot between 423 & 413 E Water St	Backyard of 423 E Water St	S side of Main St in front of Cabinet Shop	Eastern end of Spinnaker Parking lot	Equipment Blank	Trip Blank	NW corner of Spinnaker building	NW corner of Spinnaker building	NW corner of Spinnaker building	Equipment Blank	Trip Blank
Sample Date	2/12/2013	2/12/2013	2/12/2013	2/12/2013	2/12/2013	2/12/2013	2/12/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
Sample Time	1040	1140	1315	1430	1635	1645		945	1345	1420	1535	1540	1700		1035	1145	1430	1700	
Volatile Organic Compound (VOC)					Dilution Factor			Dilution Factor							Dilution Factor				
µg/L					6.67			1.67							1.67				
Acetone	<10.0	<10.0	<10.0	<10.0	<66.7	<10.0	<10.0	<16.7	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<16.7	<10.0	<10.0	<10.0	10.0
Benzene	<1.0	<1.0	<1.0	<1.0	<6.67	<1.0	<1.0	<1.67	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.67	<1.0	<1.0	<1.0	<1.0
Dichlorobromomethane	<1.0	<1.0	<1.0	<1.0	<6.67	<1.0	<1.0	<1.67	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.67	<1.0	<1.0	<1.0	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0	<6.67	<1.0	<1.0	<1.67	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.67	<1.0	<1.0	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	<6.67	<1.0	<1.0	<1.67	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.67	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10.0	<10.0	<10.0	<10.0	<66.7	<10.0	<10.0	<16.7	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<16.7	<10.0	<10.0	<10.0	<10.0
Carbon disulfide	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Chlorobenzene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Chloroethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Chloroform	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	2.73	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Chloromethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Ethylbenzene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
2-Hexanone	<10.0	<10.0	<10.0	<10.0	<66.7	<10.0	<10.0	<16.7	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<16.7	<10.0	<10.0	<10.0	<10.0
Methylene Chloride	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
4-Methyl-2-pentanone (MIBK)	<10.0	<10.0	<10.0	<10.0	<66.7	<10.0	<10.0	<16.7	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<16.7	<10.0	<10.0	<10.0	<10.0
Styrene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	1.77	<1.00	<1.00	<1.00	186	<1.00	<1.00	56.7	3.32	18.9	<1.00	4.48	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Toluene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	1.15	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Trichloroethene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	1.83	1.47	<1.00	3.12	<1.00	<1.00	39.0	<1.00	4.64	<1.00	<1.00
Vinyl chloride	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	<2.00	<2.00	<2.00	<2.00	<13.3	<2.00	<2.00	<3.33	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<3.33	<2.00	<2.00	<2.00	<2.00
1,1,1-Trichloroethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Cyclohexane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	<2.00	<2.00	<2.00	<2.00	<13.3	<2.00	<2.00	<3.33	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<3.33	<2.00	<2.00	<2.00	<2.00
Ethylene Dibromide	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
cis-1,2-Dichloroethene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	24.6	<1.00	<1.00	2.29	<1.00	<1.00	5.60	4.37	2.16	<1.00	<1.00
trans-1,2-Dichloroethene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Methyl acetate	<10.0	<10.0	<10.0	<10.0	<66.7	<10.0	<10.0	<16.7	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<16.7	<10.0	<10.0	<10.0	<10.0
Methyl tert-butyl ether	<5.00	<5.00	<5.00	<5.00	<33.3	<5.00	<5.00	<8.34	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<8.34	<5.00	<5.00	<5.00	<5.00
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00
Methylcyclohexane	<1.00	<1.00	<1.00	<1.00	<6.67	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.67	<1.00	<1.00	<1.00	<1.00

Notes:
- Exceeds U.S. Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) calculator groundwater screening level
- Exceeds EPA Maximum Contaminant Level (MCL)
- Exceeds both MCL and VISL groundwater screening level
- cis-1,2-Dichloroethene detected above laboratory reporting limit

µg/L = Micrograms per Liter

Groundwater samples were collected in Geoprobe borings at first observed groundwater, generally between 11 and 20 feet below ground surface.

TABLE 4
SCREENING-LEVEL ANALYTICAL RESULTS FOR GROUNDWATER IN SHALLOW SOIL BORINGS AND VERTICAL AQUIFER SAMPLING PROGRAMS
EAST TROY CONTAMINATED AQUIFER
DECEMBER 2012 AND FEBRUARY 2013

Sample Location	VAS-208-05-0113	VAS-208-27-0113	VAS-208-60-0113	VAS-209-25-0113	VAS-209-50-0113	VAS-209-51-0113	VAS-209-75-0113	VAS-209-105-0113	VAS-210-25-0113	VAS-210-50-0113	VAS-210-70-0113	VAS-210-110-0113
Location Description	Rutherford Dr about 500 feet NW of golf course parking lot			East side of River on Bike trail approx 500 feet SE from parking lot					Terminus of Rutherford Dr at Golf course parking lot			
Sample Date	1/14/2013	1/14/2013	1/14/2013	1/15/2013	1/15/2013	1/15/2013	1/16/2013	1/16/2013	1/16/2013	1/16/2013	1/17/2013	1/17/2013
Sample Time	1130	1345	1535	1430	1645	1645	1005	1220	1545	1700	1045	1315
Volatile Organic Compound (VOC)												
µg/L												
Acetone	11.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Benzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorobromomethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromoform	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Bromomethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2-Butanone (MEK)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Carbon disulfide	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Carbon tetrachloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloroform	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chloromethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1-Dichloroethene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichloropropane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,3-Dichloropropene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
trans-1,3-Dichloropropene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Ethylbenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
2-Hexanone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methylene Chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
4-Methyl-2-pentanone (MIBK)	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Styrene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2,2-Tetrachloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Tetrachloroethene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Toluene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichloroethene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Vinyl chloride	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Xylenes, Total	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
1,1,1-Trichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,1,2-Trichloroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Cyclohexane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dibromo-3-Chloropropane	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Ethylene Dibromide	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Dichlorodifluoromethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
cis-1,2-Dichloroethene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	1.69	3.19	<1.00	<1.00	<1.00	<1.00
trans-1,2-Dichloroethene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methyl acetate	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Methyl tert-butyl ether	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
1,1,2-Trichloro-1,2,2-trifluoroethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2,4-Trichlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,2-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,3-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
1,4-Dichlorobenzene	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Trichlorofluoromethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Chlorodibromomethane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Methylcyclohexane	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

Notes:
Exceeds U.S. Environmental Protection Agency (EPA) Vapor Intrusion Screening Level (VISL) calculator groundwater screening level
Exceeds EPA Maximum Contaminant Level (MCL)
Exceeds both MCL and VISL groundwater screening level
cis-1,2-Dichloroethene detected above laboratory reporting limit
µg/L = Micrograms per Liter
Groundwater samples were collected in Geoprobe borings at first observed groundwater, generally between 11 and 20 feet below ground surface.

TABLE 5

ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN VAPOR INTRUSION SAMPLES
AUGUST 2012 AND APRIL - MAY 2013

Sample Location:	1													
Property Use:	Commercial													
Field Sample ID:	IA-001-1-0812		IA-001D-1-0812		IA-002-1-0812		SS-001-1-0812		SS-001D-1-0812		SS-002-1-0812		SS-003-1-0812	
Lab Sample ID:	1208725-06A		1208725-02A		1208725-04A		1208725-01A		1208725-07A		1208725-03A		1208725-05A	
Sample Type:	Indoor Air		Indoor Air		Indoor Air		Sub-Slab		Sub-Slab		Sub-Slab		Sub-Slab	
Sample Date:	8/30/2012		8/30/2012		8/30/2012		8/30/2012		8/30/2012		8/30/2012		8/30/2012	
Concentration Detected in:	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Volatile Organic Compound														
Freon 12	0.56	2.8	0.54	2.7	0.51	2.5	ND	ND	ND	ND	ND	ND	ND	ND
Freon 114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	0.50	1.0	0.51	1.0	0.55	1.1	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	0.14 J	0.53 J	ND	ND	0.086 J	0.34 J	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	0.22	1.3	0.26	1.4	0.25	1.4	ND	ND	ND	ND	ND	ND	ND	ND
Ethanol	5.8	11	7.2	14	15	29	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	0.072 J	0.55 J	0.080 J	0.61 J	0.087 J	0.66 J	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	21	50	22	52	25	59	ND	ND	ND	ND	ND	ND	ND	ND
2-Propanol	1.9	4.8	2.1	5.1	3.0	7.3	ND	ND	ND	ND	ND	ND	18 J	45 J
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Chloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	6.0	21	5.9	20	6.1	21	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	0.36	1.3	0.41	1.4	0.45	1.6	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl Ethyl Ketone)	0.92	2.7	0.90	2.7	1.5	4.5	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	0.46 J	1.4 J	0.47 J	1.4 J	0.47 J	1.4 J	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.065 J	0.32 J	0.084 J	0.41 J	0.062 J	0.30 J	ND	ND	ND	ND	3.2 J	16 J	ND	ND
1,1,1-Trichloroethane	0.24	1.3	0.24	1.3	0.22	1.2	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	0.088 J	0.30 J	0.13 J	0.46 J	0.19	0.67	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.072 J	0.45 J	0.095 J	0.60 J	0.070 J	0.44 J	ND	ND	ND	ND	ND	ND	ND	ND
2,2,4-Trimethylpentane	0.15 J	0.68 J	ND	ND	0.094 J	0.44 J	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.20	0.63	0.16 J	0.52 J	0.20	0.64	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.089 J	0.36 J	0.088 J	0.36 J	0.084 J	0.34 J	ND	ND	ND	ND	ND	ND	ND	ND
Heptane	0.16 J	0.64 J	0.12 J	0.47 J	0.15 J	0.60 J	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	0.093 J	0.38 J	0.043 J	0.18 J	0.11 J	0.45 J	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	2.3	8.7	2.4	9.1	3.0	11	ND	ND	160	600	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	38	260	37	250	32	220	20,000	130,000	18,000	120,000	3,200	22,000	8,300	56,000
2-Hexanone	0.078 J	0.32 J	ND	ND	0.064 J	0.26 J	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	0.79	3.4	0.84	3.6	0.80	3.5	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	2.7	12	2.4	10	2.7	12	ND	ND	9.0 J	39 J	ND	ND	ND	ND
o-Xylene	0.71	3.1	0.71	3.1	0.77	3.4	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	0.46	2.0	0.43	1.8	0.53	2.2	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	0.10 J	0.50 J	0.13 J	0.63 J	0.099 J	0.48 J	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	0.45	2.2	0.41	2.0	0.47	2.3	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ND	ND	0.17	0.84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.48	2.4	0.44	2.2	0.51	2.5	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	0.20	1.2	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Sample Location:	6													
Property Use:	Residential													
Field Sample ID:	AA-001-6-0812		IA-001-6-0812		IA-001-6D-0812		SS-001-6-0812		SS-001-6D-0812		SS-002-6-0812			
Lab Sample ID:	1209002-06A		1209002-02A		1209002-03A		1209002-01A		1209002-04A		1209002-05A			
Sample Type:	Ambient Air		Indoor Air		Indoor Air		Sub-Slab		Sub-Slab		Sub-Slab			
Sample Date:	8/31/2012		8/31/2012		8/31/2012		8/31/2012		8/31/2012		8/30/2012			
Concentration Detected in:	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3		
Volatile Organic Compound														
Freon 12	0.45	2.2	0.42	2.1	0.41	2.0	0.46 J	2.3 J	0.44 J	2.2 J	0.43	2.1		
Freon 114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Chloromethane	0.43	0.90	0.54	1.1	1.2	2.5	0.62 J	1.3 J	ND	ND	0.16 J	0.34 J		
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,3-Butadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Bromomethane	ND	ND	0.12 J	0.48 J	0.16 J	0.60 J	ND	ND	ND	ND	0.36 J	1.4 J		
Chloroethane	ND	ND	ND	ND	0.068 J	0.18 J	ND	ND	ND	ND	ND	ND		
Freon 11	0.21	1.2	0.34	1.9	0.35	2.0	0.41 J	2.3 J	0.38 J	2.1 J	0.24 J	1.4 J		
Ethanol	3.5	6.7	310 R	580 R	310 R	580 R	130 J	240 J	5.1	9.6	16	31		
Freon 113	0.076 J	0.58 J	0.088 J	0.67 J	0.057 J	0.44 J	0.13 J	1.0 J	ND	ND	ND	ND		
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Acetone	4.3	10	32	75	29	68	16 J	38 J	3.5 UJ	8.4 UJ	9.0	21		
2-Propanol	0.35 J	0.86 J	29	71	29	72	9.4 J	23 J	0.57 J	1.4 J	2.6	6.3		
Carbon Disulfide	0.31 J	0.97 J	0.43 J	1.3 J	0.48 J	1.5 J	0.80 J	2.5 J	ND	ND	ND	ND		
3-Chloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Methylene Chloride	0.074 J	0.26 J	0.47	1.6	0.48	1.6	0.48 J	1.6 J	ND	ND	0.50 J	1.7 J		
Methyl tert-butyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Hexane	0.18	0.65	0.52	1.8	0.37	1.3	0.23 J	0.80 J	ND	ND	0.26 J	0.90 J		
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
2-Butanone (Methyl Ethyl Ketone)	0.41 J	1.2 J	1.9	5.6	1.8	5.4	1.0 J	3.1 J	0.59 J	1.7 J	1.1 J	3.3 J		
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Tetrahydrofuran	ND	ND	1.3	3.8	1.0	3.1	ND	ND	ND	ND	ND	ND		
Chloroform	ND	ND	0.10 J	0.49 J	0.16 J	0.77 J	ND	ND	ND	ND	ND	ND		
1,1,1-Trichloroethane	ND	ND	0.16 J	0.88 J	0.17 J	0.92 J	0.10 J	0.55 J	ND	ND	ND	ND		
Cyclohexane	ND	ND	0.18 J	0.60 J	0.12 J	0.42 J	ND	ND	ND	ND	0.21 J	0.72 J		
Carbon Tetrachloride	0.080 J	0.50 J	0.088 J	0.55 J	0.084 J	0.53 J	0.075 J	0.47 J	ND	ND	ND	ND		
2,2,4-Trimethylpentane	ND	ND	0.15 J	0.71 J	0.14 J	0.64 J	ND	ND	ND	ND	ND	ND		
Benzene	0.15 J	0.48 J	0.22	0.71	0.18	0.59	ND	ND	ND	ND	0.14 J	0.43 J		
1,2-Dichloroethane	ND	ND	0.19	0.77	0.18	0.73	ND	ND	ND	ND	ND	ND		
Heptane	ND	ND	0.83	3.4	0.79	3.2	ND	ND	ND	ND	ND	ND		
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.16 J	0.58 J		
Bromodichloromethane	ND	ND	0.048 J	0.32 J	0.045 J	0.30 J	ND	ND	ND	ND	ND	ND		
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
4-Methyl-2-pentanone	ND	ND	0.084 J	0.34 J	0.10 J	0.43 J	ND	ND	ND	ND	ND	ND		
Toluene	0.46	1.7	5.1	19	5.0	19	2.3 J	8.6 J	ND	ND	0.70	2.6		
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Tetrachloroethene	ND	ND	0.60	4.1	0.58	3.9	150 J	990 J	230	1,600	110	730		
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Ethyl Benzene	0.098 J	0.43 J	0.29	1.3	0.27	1.2	0.14 J	0.61 J	ND	ND	0.086 J	0.37 J		
m,p-Xylene	0.14 J	0.59 J	1.0	4.4	0.98	4.3	0.44 J	1.9 J	ND	ND	0.26 J	1.1 J		
o-Xylene	0.059 J	0.26 J	0.23	1.0	0.26	1.1	0.19 J	0.83 J	ND	ND	ND	ND		
Styrene	ND	ND	0.16 J	0.67 J	0.16 J	0.70 J	ND	ND	ND	ND	ND	ND		
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Cumene	ND	ND	0.069 J	0.34 J	ND	ND	ND	ND	ND	ND	ND	ND		
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Propylbenzene	ND	ND	ND	ND	0.046 J	0.23 J	ND	ND	ND	ND	ND	ND		
4-Ethyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,3,5-Trimethylbenzene	ND	ND	0.054 J	0.27 J	0.056 J	0.28 J	ND	ND	ND	ND	ND	ND		
1,2,4-Trimethylbenzene	ND	ND	0.20	0.98	0.18	0.90	ND	ND	ND	ND	ND	ND		
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.22 J	1.3 J		
alpha-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	0.078 UJ	0.58 UJ	ND	ND	ND	ND		
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		

Sample Location:	8					
Property Use:	Residential					
Field Sample ID:	IA-002-008-0812		IA-003-008-0812		IA-001-008-0812	
Lab Sample ID:	1208556-13A		1208556-14A		1208556-15A	
Sample Type:	Indoor Air		Indoor Air		Indoor Air	
Sample Date:	8/24/2012		8/24/2012		8/24/2012	
Concentration Detected in:	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Volatile Organic Compound						
Freon 12	0.41	2.0	0.41	2.0	0.42	2.1
Freon 114	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	0.44	0.90	0.57	1.2
Vinyl Chloride	ND	ND	ND	ND	ND	ND
1,3-Butadiene	ND	ND	ND	ND	ND	ND
Bromomethane	0.11 J	0.43 J	0.16 J	0.63 J	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND
Freon 11	0.16	0.93	0.20	1.1	0.20	1.1
Ethanol	84 R	160 R	95 R	180 R	120 R	230 R
Freon 113	0.063 J	0.48 J	0.062 J	0.47 J	0.064 J	0.49 J
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND
Acetone	10	25	12	28	13	30
2-Propanol	1.7	4.3	2.4	6.0	2.3	5.8
Carbon Disulfide	0.27 UJ+	ND	ND	ND	ND	ND
3-Chloropropene	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.22 J	0.76 J	0.16 J	0.56 J	0.15 J	0.53 J
Methyl tert-butyl ether	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND
Hexane	0.21	0.74	0.24	0.86	0.23	0.80
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl Ethyl Ketone)	0.68 J	2.0 J	0.76 J	2.2 J	0.76 J	2.2 J
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	ND	ND	ND	ND	ND	ND
Chloroform	0.12 J	0.60 J	0.14 J	0.69 J	0.13 J	0.63 J
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND
Cyclohexane	0.14 J	0.48 J	0.065 J	0.22 J	0.042 J	0.14 J
Carbon Tetrachloride	0.080 J	0.50 J	0.074 J	0.47 J	0.082 J	0.51 J
2,2,4-Trimethylpentane	ND	ND	0.11 J	0.52 J	ND	ND
Benzene	0.17	0.53	0.18	0.58	0.16 J	0.53 J
1,2-Dichloroethane	0.37	1.5	0.47	1.9	0.53	2.2
Heptane	0.084 J	0.34 J	0.071 J	0.29 J	0.070 J	0.29 J
Trichloroethene	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND
1,4-Dioxane	ND J	ND J	ND J	ND J	ND J	ND J
Bromodichloromethane	0.027 J	0.18 J	0.026 J	0.18 J	0.028 J	0.18 J
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	0.060 J	0.25 J	ND	ND	ND	ND
Toluene	0.79	3.0	0.84	3.2	0.91	3.4
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND
Tetrachloroethene	0.030 J	0.20 J	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND
Ethyl Benzene	0.10 J	0.44 J	0.10 J	0.43 J	0.099 J	0.43 J
m,p-Xylene	0.27	1.2	0.29	1.3	0.28	1.2
o-Xylene	0.11 J	0.46 J	0.091 J	0.39 J	0.13 J	0.56 J
Styrene	0.072 J	0.31 J	0.062 J	0.26 J	0.066 J	0.28 J
Bromoform	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	0.067 J	0.33 J	0.080 J	0.39 J
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND
Propylbenzene	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	0.077 J	0.38 J	ND	ND	0.075 J	0.37 J
1,3,5-Trimethylbenzene	0.029 J	0.14 J	0.038 J	0.19 J	0.033 J	0.16 J
1,2,4-Trimethylbenzene	0.10 J	0.50 J	0.11 J	0.55 J	0.11 J	0.53 J
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND
alpha-Chlorotoluene	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND

Notes:
J = Estimated value
J+ = Estimated value, may be biased high
UJ = Non-detected compound associated with low bias in the CCV and/or LCS
ND = Non detect
NR = Not reported
R = Data are unusable
E = Exceeds insturment calibration range

TABLE 5

ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN VAPOR INTRUSION SAMPLES
AUGUST 2012 AND APRIL - MAY 2013

Sample Location:	11								13						18						21				21B	
Property Use:	Residential								Residential						Residential						Residential				Residential	
Field Sample ID:	IA-001-11-0812		AA-001-11-0812		SS-002-11-0812		SS-001-11-0812		IA-001-13-0812		SS-001-13-0812		SS-002-13-0812		IA-001-18-0812		SS-002-18-0812		SS-001-18-0812		AA-001-21-0812		IA-001-21-0812		IA-001-21B-0812	
Lab Sample ID:	1208557-01A		1208557-02A		1208557-03A		1208557-04A		1208725-09A		1208725-10A		1208725-12A		1208557-11A		1208557-12A		1208557-14A		1208556-08A		1208556-09A		1208556-10A	
Sample Type:	Indoor Air		Ambient Air		Sub-slab		Sub-Slab		Indoor Air		Sub-Slab		Sub-Slab		Indoor Air		Sub-Slab		Sub-Slab		Ambient Air		Indoor Air		Indoor Air	
Sample Date:	8/23/2012		8/23/2012		8/23/2012		8/23/2012		8/30/2012		8/30/2012		8/30/2012		8/23/2012		8/23/2012		8/23/2012		8/23/2012		8/23/2012		8/23/2012	
Concentration Detected in:	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Volatile Organic Compound																										
Freon 12	0.44	2.2	0.42	2.1	0.48	2.4	0.45	2.2	0.48	2.4	0.45	2.2	0.49	2.4	0.51	2.5	0.45	2.2	0.48 J	2.4 J	0.47	2.3	0.45	2.2	0.41	2.0
Freon 114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	0.39	0.80	0.35	0.72	0.20	0.42	0.30	0.63	0.40	0.82	0.25	0.51	0.18	0.38	0.48	0.99	ND	ND	ND	ND	0.47	0.97	0.92	1.9	0.64	1.3
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.65	1.4	0.37	0.82
Bromomethane	ND	ND	ND	ND	0.20	0.77	0.10 J	0.39 J	0.074 J	0.29 J	0.15 J	0.58 J	0.14 J	0.53 J	ND	ND	0.14 J	0.56 J	0.68 J	2.6 J	ND	ND	ND	ND	0.14 J	0.56 J
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	0.21	1.2	0.20	1.1	0.22	1.2	0.22	1.2	0.29	1.6	0.33	1.8	0.33	1.8	0.25	1.4	0.21	1.2	0.33 J	1.8 J	0.20	1.2	0.21	1.2	0.20	1.1
Ethanol	23	43	9.3	18	18	34	2.6	4.8	5.5	10	2.8	5.4	15	28	27	51	2.7	5.0	2.1 UJ	4.0 UJ	10 J+	20 J+	45 J+	86 J+	14 J+	26 J+
Freon 113	0.075 J	0.58 J	0.050 J	0.38 J	0.067 J	0.52 J	0.064 J	0.49 J	0.073 J	0.56 J	0.066 J	0.50 J	0.059 J	0.45 J	0.062 J	0.47 J	0.078 J	0.60 J	ND	ND	0.056 J	0.43 J	0.057 J	0.44 J	0.071 J	0.54 J
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	11	26	16	37	8.1	19	2.8	6.6	13	31	7.2	17	4.3	10	7.9	19	5.7	14	6.5	15	14	32	12	28	11	26
2-Propanol	0.56 J	1.4 J	40	98	3.0	7.4	0.20 J	0.50 J	0.69 J	1.7 J	0.40 J	0.98 J	0.14 J	0.34 J	0.81 J	2.0 J	0.24 J	0.60 J	ND	ND	40	97	6.5	16	2.6	6.5
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Chloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	0.32 J+	1.1 J+	ND	ND	0.15 J	0.54 J	0.12 J	0.41 J	0.093 J	0.32 J	ND	ND	0.12 J	0.40 J	ND	ND	0.12 J	0.41 J	0.14 J	0.50 J	0.12 J	0.42 J
Methyl tert-butyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	0.16 J	0.55 J	0.20	0.72	0.21	0.74	ND	ND	0.12 J	0.42 J	ND	ND	ND	ND	0.24	0.85	ND	ND	ND	ND	0.30 J+	1.1 J+	0.55	1.9	0.38	1.3
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl Ethyl Ketone)	0.31 J	0.91 J	2.7	8.0	0.98	2.9	0.28 J	0.83 J	0.79 J	2.3 J	0.35 J	1.0 J	0.38 J	1.1 J	0.44 J	1.3 J	0.58 J	1.7 J	ND	ND	3.1	9.0	0.79 J	2.3 J	0.87	2.6
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.25 J	0.73 J
Chloroform	ND	ND	ND	ND	ND	ND	0.051 J	0.25 J	ND	ND	ND	ND	ND	ND	ND	ND	0.068 J	0.33 J	ND	ND	ND	ND	0.054 J	0.26 J	0.049 J	0.24 J
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	0.053 J	0.18 J	ND	ND	0.24	0.83	ND	ND	0.069 J	0.24 J	ND	ND	ND	ND	0.12 J	0.42 J	ND	ND	ND	ND	0.055 J	0.19 J	0.14 J	0.50 J	0.15 J	0.52 J
Carbon Tetrachloride	0.063 J	0.40 J	0.059 J	0.37 J	0.059 J	0.37 J	0.059 J	0.37 J	0.062 J	0.39 J	0.062 J	0.39 J	0.096 J	0.60 J	0.070 J	0.44 J	0.080 J	0.51 J	ND	ND	0.11 J	0.67 J	0.060 J	0.37 J	0.069 J	0.44 J
2,2,4-Trimethylpentane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12 J	0.57 J	0.073 J	0.34 J	ND	ND
Benzene	0.18	0.58	7.0	22	0.11 J	0.36 J	0.041 J	0.13 J	0.17	0.53	0.099 J	0.32 J	0.055 J	0.18 J	0.20	0.64	0.037 J	0.12 J	ND	ND	3.6	12	0.59	1.9	0.41	1.3
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1.7	6.8	0.72	2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.060 J	0.24 J	ND	ND
Heptane	ND	ND	0.070 J	0.28 J	ND	ND	ND	ND	0.081 J	0.33 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12 J	0.51 J	0.18	0.74	0.16 J	0.65 J
Trichloroethene	ND	ND	0.064 J	0.35 J	ND	ND	ND	ND	ND	ND	ND	ND	0.22	1.2	ND	ND	ND	ND	ND	ND	0.054 J	0.29 J	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	0.089 J	0.41 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	ND	ND	ND	ND	0.24	0.88	ND	ND	ND	ND	ND	ND	ND	ND J	0.30	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	ND	ND	ND	ND	0.077 J	0.32 J	ND	ND	0.053 J	0.22 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.67	2.5	1.1	4.1	0.52	2.0	0.27	1.0	2.2	8.1	1.4	5.2	0.090 J	0.34 J	0.93	3.5	0.14 J	0.55 J	0.24 J	0.89 J	1.8	6.8	1.9	7.2	1.4	5.2
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	0.11 UJ	0.75 UJ	7.4 J+	50 J+	0.24 J+	1.6 J+	0.072 J	0.48 J	0.16 J	1.0 J	9.9	67	0.21 J+	1.4 J+	58	390	310	2100	0.063 J	0.43 J	0.12 J	0.81 J	0.19	1.3
2-Hexanone	ND	ND	ND	ND	0.077 J	0.32 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.11 UJ+	0.44 UJ+	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	0.33	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.40	1.9	ND	ND	ND	ND
Ethyl Benzene	0.069 J	0.30 J	0.11 J	0.48 J	0.055 J	0.24 J	ND	ND	0.095 J	0.41 J	0.040 J	0.17 J	ND	ND	0.066 J	0.28 J	ND	ND	ND	ND	0.17 J	0.74 J	0.17	0.74	0.16 J	0.70 J
m,p-Xylene	0.16 J	0.70 J	0.28	1.2	0.15 J	0.64 J	0.046 J	0.20 J	0.28	1.2	0.22	0.96	ND	ND	0.20	0.89	ND	ND	ND	ND	0.52	2.3	0.56	2.4	0.41	1.8
o-Xylene	0.067 J	0.29 J	0.91	4.0	0.052 J	0.22 J	ND	ND	0.14 J	0.60 J	0.059 J	0.26 J	ND	ND	0.066 J	0.28 J	ND	ND	ND	ND	1.2	5.2	0.19	0.81	0.14 J	0.60 J
Styrene	ND	ND	0.15 J	0.62 J	0.044 J	0.19 J	ND	ND	0.082 J	0.35 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.15 J	0.63 J	0.14 J	0.59 J	0.086 J	0.36 J
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.044 J	0.22 J	0.051 J	0.25 J	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	ND	ND	0.74	3.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.85	4.2	0.032 J	0.16 J	0.038 J	0.19 J
4-Ethyltoluene	0.056 J	0.27 J	0.099 J	0.49 J	0.029 J	0.14 J	ND	ND	0.12 J	0.56 J	0.056 J	0.28 J	ND	ND	0.065 J	0.32 J	ND	ND	ND	ND	0.10 J	0.51 J	0.11 J	0.54 J	0.087 J	0.43 J
1,3,5-Trimethylbenzene	ND	ND	0.033 J	0.16 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.054 J	0.26 J	0.11 J	0.56 J	0.048 J	0.24 J	ND	ND	0.19	0.94	0.14 J	0.67 J	ND	ND	0.055 J	0.27 J	ND	ND	ND	ND	0.13 J	0.66 J	0.15 J	0.75 J	0.091 J	0.45 J
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	2.8	17	ND	ND	ND	ND	ND	ND	0.44	2.6	0.26	1.6	ND	ND	ND	ND	ND	ND	2.4	14	ND	ND	0.057 J	0.34 J
alpha-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	0.065 UJ	0.39 UJ	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
J = Estimated value
J+ = Estimated value, may be biased high
UJ = Non-detected compound associated
ND = Non detect
NR = Not reported
R = Data are unusable
E = Exceeds insturment calibration range

TABLE 5

ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN VAPOR INTRUSION SAMPLES
AUGUST 2012 AND APRIL - MAY 2013

Sample Location:	26										28						31					
Property Use:	Residential										Residential						Residential					
Field Sample ID:	AA-001-26-0812		AA-001D-26-0812		SS-001-026-0812		IA-001-026-0812		SS-002-26-0812		IA-001-28-0812		SS-001-28-0812		SS-002-28-0812		SS-001-31-0812		SS-002-31-0812		IA-001-31-0812	
Lab Sample ID:	1208556-11A		1208556-12A		1208556-16A		1208556-17A		1208557-09A		1208556-05A		1208556-06A		1208556-07A		1208557-05A		1208557-06A		1208557-08A	
Sample Type:	Ambient Air		Ambient Air		Sub-Slab		Indoor Air		Sub-Slab		Indoor Air		Sub-Slab		Sub-Slab		Sub-Slab		Sub-Slab		Indoor Air	
Sample Date:	8/24/2012		8/24/2012		8/24/2012		8/24/2012		8/24/2012		8/22/2012		8/23/2012		8/23/2012		8/23/2012		8/23/2012		8/23/2012	
Concentration Detected in:	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Volatile Organic Compound																						
Freon 12	0.37	1.8	0.41	2.0	ND	ND	0.47	2.3	ND	ND	0.48	2.4	0.49	2.4	0.45	2.2	0.55 J	2.7 J	0.48 J	2.4 J	0.45	2.2
Freon 114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	0.46	0.95	0.35	0.72	ND	ND	0.42	0.86	ND	ND	0.60	1.2	0.20	0.41	0.33	0.68	ND	ND	ND	ND	0.40	0.84
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	0.11 J	0.44 J	0.13 J	0.50 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.14 J	0.56 J
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	0.16 J	0.91 J	0.20	1.1	ND	ND	0.28	1.6	ND	ND	0.19 J	1.1 J	0.20	1.1	0.20	1.1	ND	ND	ND	ND	0.23	1.3
Ethanol	11 J+	20 J+	20 J+	38 J+	ND	ND	79 R	150 R	14 J	26 J	24 J+	44 J+	2.2 J+	4.2 J+	1.4 J+	2.7 J+	ND	ND	6.9 J	13 J	54	100
Freon 113	0.058 J	0.45 J	0.060 J	0.46 J	ND	ND	0.067 J	0.51 J	ND	ND	0.068 J	0.52 J	0.083 J	0.64 J	0.066 J	0.50 J	ND	ND	ND	ND	0.082 J	0.62 J
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	17	40	13	30	ND	ND	8.1	19	4.0 J	9.4 J	10	24	5.4	13	5.0	12	2.3 J	5.4 J	5.0 J	12 J	10	24
2-Propanol	49	120	36	88	ND	ND	0.51 J	1.2 J	ND	ND	1.3	3.2	ND	ND	ND	ND	ND	ND	ND	ND	0.80 J	2.0 J
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.88 J+	2.7 J+	ND	ND	2.0 UJ	6.2 UJ	0.30 UJ	0.92 UJ
3-Chloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.11 J	0.37 J	0.14 J	0.49 J	ND	ND	0.14 J	0.50 J	ND	ND	0.16 J	0.56 J	0.067 J	0.23 J	0.11 J	0.37 J	ND	ND	0.55 UJ	1.9 UJ	0.15 UJ	0.52 UJ
Methyl tert-butyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	0.18	0.63	0.16	0.57	ND	ND	0.21	0.73	ND	ND	1.0	3.7	ND	ND	ND	ND	ND	ND	ND	ND	0.25	0.87
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl Ethyl Ketone)	4.4	13	3.1	9.1	ND	ND	0.57 J	1.7 J	ND	ND	0.88 J	2.6 J	0.60 J	1.8 J	0.50 J	1.5 J	ND	ND	ND	ND	1.1	3.3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.26 J	0.77 J
Chloroform	ND	ND	ND	ND	ND	ND	0.049 J	0.24 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.052 J	0.25 J
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.28	1.5	0.26	1.4	ND	ND	ND	ND	ND	ND
Cyclohexane	0.045 J	0.16 J	ND	ND	ND	ND	ND	ND	ND	ND	0.26	0.90	0.036 J	0.12 J	0.023 J	0.080 J	ND	ND	ND	ND	0.091 J	0.31 J
Carbon Tetrachloride	0.064 J	0.40 J	0.052 J	0.33 J	ND	ND	0.065 J	0.41 J	ND	ND	0.063 J	0.40 J	ND	ND	ND	ND	ND	ND	ND	ND	0.068 J	0.43 J
2,2,4-Trimethylpentane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.16 J	0.76 J	ND	ND	ND	ND	ND	ND	ND	ND	0.10 J	0.49 J
Benzene	5.0	16	3.8	12	ND	ND	0.18	0.56	ND	ND	0.34	1.1	ND	ND	ND	ND	ND	ND	ND	ND	0.18	0.59
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.049 J	0.20 J	ND	ND	0.025 J	0.10 J	ND	ND	ND	ND	ND	ND
Heptane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.29	1.2	ND	ND	0.057 J	0.23 J	ND	ND	ND	ND	ND	ND
Trichloroethene	0.062 J	0.33 J	0.056 J	0.30 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8 J	9.9 J	1.4 J	7.3 J	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.6	5.9	1.2	4.7	ND	ND	0.81	3.1	ND	ND	1.4	5.2	ND	ND	ND	ND	ND	ND	ND	ND	0.97	3.6
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	0.083 J	0.56 J	0.070 J	0.47 J	810	5500	0.34	2.3	1,400	9,400	0.11 J	0.74 J	2.3	16	0.55	3.7	600	4,000	650	4,400	0.33 J+	2.2 J+
2-Hexanone	ND	ND	0.071 J	0.29 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.078 J	0.32 J
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.44 J	3.4 J	ND	ND
Chlorobenzene	0.49	2.2	0.39	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	0.11 J	0.49 J	0.13 J	0.58 J	ND	ND	0.088 J	0.38 J	ND	ND	0.12 J	0.51 J	ND	ND	0.016 J	0.070 J	ND	ND	ND	ND	0.049 J	0.21 J
m,p-Xylene	0.35	1.5	0.28	1.2	ND	ND	0.20	0.87	ND	ND	0.36	1.5	0.044 J	0.19 J	0.029 J	0.13 J	ND	ND	ND	ND	0.18	0.77
o-Xylene	1.6	6.8	1.2	5.0	ND	ND	0.11 J	0.48 J	ND	ND	0.12 J	0.52 J	ND	ND	ND	ND	ND	ND	ND	ND	0.074 J	0.32 J
Styrene	0.18 J	0.76 J	0.14 J	0.61 J	ND	ND	0.048 J	0.20 J	ND	ND	0.064 J	0.27 J	ND	ND	ND	ND	ND	ND	ND	ND	0.052 J	0.22 J
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	1.1	5.3	0.89	4.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	0.12 J	0.61 J	0.087 J	0.43 J	ND	ND	0.072 J	0.35 J	ND	ND	0.11 J	0.55 J	ND	ND	ND	ND	ND	ND	ND	ND	0.067 J	0.33 J
1,3,5-Trimethylbenzene	0.046 J	0.22 J	0.035 J	0.17 J	ND	ND	0.033 J	0.16 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.11 J	0.54 J	0.099 J	0.48 J	ND	ND	0.091 J	0.45 J	ND	ND	0.15 J	0.73 J	ND	ND	ND	ND	ND	ND	ND	ND	0.097 J	0.48 J
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	2.8	17	2.6	15	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.19 J	1.2 J	0.42 J	2.6 J	ND	ND
alpha-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.30 J	1.6 J	ND	ND
1,2-Dichlorobenzene	ND	ND	0.050 J	0.30 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2 UJ	8.7 UJ	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
J = Estimated value
J+ = Estimated value, may be biased high
UJ = Non-detected compound associated
ND = Non detect
NR = Not reported
R = Data are unusable
E = Exceeds insturment calibration range

TABLE 5

ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN VAPOR INTRUSION SAMPLES
AUGUST 2012 AND APRIL - MAY 2013

Sample Location:	33								34				35																37							
Property Use:	Residential								Residential				Residential																Residential							
Field Sample ID:	AA-001-33-0413		IA-001-33-0413		SS-001-33-0413		SS-002-33-0413		IA-001-34-0812		IA-002-34-0812		AA-001-35-0413		AA-001-35-0413D		IA-001-35-0413		IA-001-35-0413 Lab Dup		IA-001-35-0413D		SS-001-35-0413		SS-001-35-0413D		SS-002-35-0413		SS-002-37-0812		IA-001-37-0812		SS-001-37-0812		AA-001-37-0812	
Lab Sample ID:	1305096-08A		1305096-07A		1305096-06A		1305096-09A		1208725-11A		1208725-08A		1304410-06A		1304410-07A		1304410-04A		1304410-04AA		1304410-05A		1304410-01A		1304410-02A		1304410-03A		1208556-18A		1208556-19A		1208556-20A		1208557-07A	
Sample Type:	Ambient Air		Indoor Air		Sub-Slab		Sub-Slab		Indoor Air		Indoor Air		Ambient Air		Ambient Air		Indoor Air		Indoor Air Lab Dup		Indoor Air		Sub-Slab		Sub-Slab		Sub-Slab		Sub-Slab		Indoor Air		Sub-Slab		Ambient Air	
Sample Date:	4/25/2013		4/25/2013		4/25/2013		4/25/2013		8/30/2012		8/30/2012		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		8/23/2012		8/23/2012		8/23/2012		8/23/2012	
Concentration Detected in:	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Volatile Organic Compound																																				
Freon 12	0.49	2.4	0.48	2.4	ND	ND	ND	ND	0.48	2.4	0.45	2.2	0.46	2.3	0.47	2.3	0.45	2.2	0.47	2.3	0.45	2.2	0.48	2.4	0.44	2.2	0.44	2.2	0.46	2.3	0.43	2.1	0.42	2.1	0.46	2.3
Freon 114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	0.53	1.1	0.65	1.3	ND	ND	ND	ND	0.43	0.89	0.42	0.86	0.62	1.3	0.53	1.1	0.44	0.90	0.43	0.88	0.42	0.87	ND	ND	0.069 J	0.14 J	ND	ND	0.074 J	0.15 J	0.30	0.62	0.19	0.40	0.41	0.84
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene	ND	ND	0.12 J	0.26 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.048 J	0.11 J	0.039 J	0.086 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	0.17 J	0.65 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.10 J	0.39 J	0.15 J	0.58 J
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	0.20	1.1	0.20	1.1	ND	ND	ND	ND	0.30	1.7	0.26	1.4	0.22	1.2	0.20	1.1	0.20	1.2	0.21	1.2	0.19	1.0	0.22	1.2	0.21	1.2	0.20	1.1	0.24	1.4	0.23	1.3	0.21	1.2	0.23	1.3
Ethanol	1.6	3.0	9.6	18	ND	ND	12	22	15	29	6.2	12	6.0	11	1.4	2.5	8.9	17	9.0	17	5.4	10	12	22	12	22	17	32	2.6 J+	4.8 J+	16 J+	31 J+	5.1 J+	9.6 J+	2.4	4.4
Freon 113	0.068 J	0.52 J	0.064 J	0.49 J	ND	ND	ND	ND	0.077 J	0.59 J	0.055 J	0.42 J	0.067 J	0.51 J	ND	ND	0.052 J	0.40 J	0.058 J	0.44 J	0.058 J	0.44 J	0.058 J	0.44 J	ND	ND	0.060 J	0.46 J	0.11 J	0.82 J	0.087 J	0.66 J	0.081 J	0.62 J	0.073 J	0.56 J
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	2.7 J+	6.5 J+	4.5 J+	11 J+	ND	ND	15 J+	35 J+	12	29	3.8	9.2	7.1	17	3.3	7.8	4.7	11	4.9	12	3.4	8.0	3.8	9.1	4.2	10	4.8	11	3.0	7.2	6.9	16	6.8	16	4.3	10
2-Propanol	0.60 J	1.5 J	22	54	18 J	46 J	1.6 J	4.0 J	1.2	2.8	0.52 J	1.3 J	1.1	2.8	0.42 J	1.0 J	0.58 J	1.4 J	0.57 J	1.4 J	0.34 J	0.82 J	4.3	10	4.2	10	5.3	13	0.35 J	0.87 J	4.3	11	1.1	2.8	0.28 J	0.68 J
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.90 J	2.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Chloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.11 J	0.38 J	0.11 J	0.37 J	ND	ND	ND	ND	0.084 J	0.29 J	0.082 J	0.28 J	0.53	1.8	0.13 J	0.44 J	0.29	1.0	0.29	1.0	0.15 J	0.51 J	0.044 J	0.15 J	0.048 J	0.17 J	0.073 J	0.25 J	0.092 J	0.32 J	0.16 J	0.56 J	0.084 J	0.29 J	0.13 UJ	0.45 UJ
Methyl tert-butyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.058 J	0.21 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	ND	ND	ND	ND	ND	ND	ND	ND	0.078 J	0.28 J	0.090 J	0.32 J	2.1	7.4	0.13 UJ	0.45 UJ	4.2	15	4.2	15	0.55 J+	1.9 J+	ND	ND	ND	ND	0.92	3.2	ND	ND	0.14 J	0.49 J	ND	ND	0.12 J	0.43 J
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<0.58	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl Ethyl Ketone)	0.38 J	1.1 J	0.34 J	0.99 J	ND	ND	2.7 J	8.0 J	0.64 J	1.9 J	0.21 J	0.62 J	1.2	3.4	0.38 J	1.1 J	0.70 J	2.1 J	0.75	2.2	0.37 J	1.1 J	1.4	4.0	1.3	3.9	1.5	4.5	0.22 J	0.63 J	0.49 J	1.4 J	1.1	3.3	0.41 J	1.2 J
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 J	0.53 J	0.21 J	0.61 J	0.26 J	0.76 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	0.030 J	0.14 J	ND	ND	0.19 J	0.92 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.18 J	0.87 J	0.048 J	0.23 J	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.23 J	1.3 J	ND	ND	0.24 J	1.3 J	ND	ND
Cyclohexane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.32	1.1	ND	ND	0.38	1.3	0.43	1.5	0.071 J	0.24 J	ND	ND	ND	ND	0.078 J	0.27 J	ND	ND	0.054 J	0.18 J	ND	ND	ND	ND
Carbon Tetrachloride	0.081 J	0.51 J	0.088 J	0.56 J	ND	ND	ND	ND	0.077 J	0.48 J	0.081 J	0.51 J	0.078 J	0.49 J	0.086 J	0.54 J	0.059 J	0.37 J	0.072 J	0.45 J	0.070 J	0.44 J	0.034 J	0.21 J	0.044 J	0.28 J	0.068 J	0.43 J	0.044 J	0.27 J	0.069 J	0.44 J	ND	ND	0.070 J	0.44 J
2,2,4-Trimethylpentane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.39 J	1.8 J	0.073 J	0.34 J	0.74	3.5	0.76	3.5	0.31 J	1.4 J	0.15 J	0.69 J	ND	ND	0.12 J	0.55 J	ND	ND	0.11 J	0.53 J	ND	ND	ND	ND
Benzene	0.16 J	0.50 J	0.22	0.69	ND	ND	1.8	5.6	0.13 J	0.41 J	0.14 J	0.45 J	0.99	3.2	0.14 J	0.44 J	1.3	4.1	1.3	4.2	0.25	0.80	0.15 J	0.48 J	0.14 J	0.44 J	0.42	1.3	ND	ND	0.16 J	0.50 J	0.091 J	0.29 J	0.14 J	0.43 J
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.27	1.1	ND	ND	ND	ND
Heptane	ND	ND	0.070 J	0.29 J	ND	ND	ND	ND	ND	ND	ND	ND	0.80	3.3	0.078 J	0.32 J	0.91	3.7	0.93	3.8	0.27	1.1	ND	ND	0.046 J	0.19 J	0.20	0.84	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	0.53 J	2.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.21	1.1	0.20	1.1	0.26	1.4	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12 J	0.45 J	ND	ND	ND	ND	ND	ND	ND	ND	0.084 J	0.30 J	ND	ND	ND	ND	ND J	ND J	ND J	ND J	0.40 J+	1.5 J+	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.042 J	0.17 J	0.042 J	0.17 J	0.025 J	0.10 J	0.028 J	0.11 J	ND	ND	0.036 J	0.15 J	0.038 J	0.16 J	0.028 J	0.12 J	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.42	1.6	0.50	1.9	ND	ND	0.35 J	1.3 J	0.27	1.0	0.28	1.1	1.5	5.6	0.20	0.77	3.0	11	3.1	12	1.0	3.9	0.22	0.83	0.20	0.75	0.81	3.0	0.090 J	0.34 J	0.92	3.4	0.25	0.94	0.66	2.5
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	2.2	15	1,100	7,800	240	1,600	1.5	10	1.2	8.5	ND	ND	ND	ND	0.039 J	0.27 J	0.022 J	0.15 J	0.037 J	0.25 J	17	110	17	120	21	140	0.50	3.4	0.034 J	0.23 J	0.58	3.9	ND	ND
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.12 J	0.47 J	ND	ND	0.049 J	0.20 J	0.061 J	0.25 J	ND	ND	ND	ND	ND	ND	0.070 J	0.29 J	ND	ND	ND	ND	0.13 J	0.55 J	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.040 J	0.18 J	0.046 J	0.21 J	0.041 J	0.19 J	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	0.038 J	0.16 J	ND	ND	ND	ND	ND	ND	ND	ND	0.65	2.8	ND	ND	0.54	2.4	0.51	2.2	0.24	1.0	0.068 J	0.29 J	ND	ND	0.11 J	0.49 J	ND	ND	0.038 J	0.17 J	ND	ND	ND	ND
m,p-Xylene	0.12 J	0.52 J	0.15 J	0.67 J	ND	ND	ND	ND	0.072 J	0.31 J	0.14 J	0.62 J	1.0	4.6	0.089 J	0.39 J	2.0	8.9	2.1	9.2	0.94	4.1	0.17 J	0.75 J	0.15 J	0.66 J	0.51	2.2	ND	ND	0.17 J	0.73 J	0.095 J	0.41 J	0.16 J	0.69 J
o-Xylene	0.052 J	0.23 J	0.055 J	0.24 J	ND	ND	0.38 J	1.6 J	ND	ND	0.049 J	0.21 J	0.31	1.4	0.035 J	0.15 J	0.66	2.9	0.72	3.1	0.31	1.4	0.21	0.93	0.24	1.1	0.41	1.8	ND	ND	0.069 J	0.30 J	ND	ND	0.068 J	0.29 J
Styrene	ND	ND	0.040 J	0.17 J	ND	ND	ND	ND	ND	ND	ND	ND	0.14 J	0.58 J	0.034 J	0.14 J	0.088 J	0.38 J	0.092 J	0.39 J	0.054 J	0.23 J	0.034 J	0.14 J	0.060 J	0.26 J	0.083 J	0.35 J	ND	ND	0.044 J	0.19 J	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.070 J	0.34 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.032 J	0.16 J	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	ND	ND	ND	ND	ND	ND	0.34 J	1.7 J	ND	ND	ND	ND	0.18 J	0.88 J	ND	ND	0.088 J	0.43 J	0.10 J	0.50 J	0.063 J	0.31 J	0.10 J	0.50 J	0.18	0.88	0.26	1.3	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	0.078 J	0.38 J	0.074 J	0.36 J	ND	ND	0.31 J	1.5 J	ND	ND	0.045 J	0.22 J	0.24	1.2	0.095 J	0.47 J	0.44	2.2	0.44	2.2	0.22	1.1	0.029 J	0.14 J	0.057 J	0.28 J	0.13 J	0.64 J	ND	ND	0.059 J	0.29 J	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.097 J	0.48 J	ND	ND	0.14	0.67	0.15	0.75	0.070 J	0.35 J	ND	ND	0.039 J	0.19 J	0.042 J	0.20 J	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.088 J	0.43 J	0.065 J	0.32 J	ND	ND	ND	ND	ND	ND	0.047 J	0.23 J	0.68	3.3	0.067 J	0.33 J	0.42	2.1	0.43	2.1	0.22	1.1	0.046 J	0.23 J	0.065 J	0.32 J	0.12 J	0.61 J	ND	ND	0.068 J	0.33 J	0.10 J	0.49 J	0.051 J	0.25 J
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.74 J	4.4 J	ND	ND	ND	ND	0.065 J	0.39 J	ND	ND	ND	ND	ND	ND	ND	ND	0.16 J	0.93 J	0.60	3.6	0.66	4.0	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.089 UJ+	0.66 UJ+	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
J = Estimated value
J+ = Estimated value, may be biased high
UJ = Non-detected compound associated
ND = Non detect
NR = Not reported
R = Data are unusable
E = Exceeds insturment calibration range

TABLE 5

ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN VAPOR INTRUSION SAMPLES
AUGUST 2012 AND APRIL - MAY 2013

Sample Location:	38						39						41								42								43			
Property Use:	Residential						Commercial						Residential								Residential								Residential			
Field Sample ID:	AA-001-38-0812		IA-002-38-0812		IA-001-38-0812		SS-001-39-0812		IA-001-39-0812		SS-002-39-0812		AA-001-41-0413		IA-001-41-0413		SS-001-41-0413		SS-002-41-0413		AA-001-42-0413		IA-001-42-0413		SS-001-42-0413		SS-002-42-0413		AA-001-43-0413		IA-001-43-0413	
Lab Sample ID:	1208556-01A		1208556-02A		1208556-04A		1208556-03A		1208557-10A		1208557-13A		1304411-01A		1304411-02A		1304411-03A		1304411-04A		1304411-08A		1304411-07A		1304411-06A		1304411-05A		1304410-09A		1304410-08A	
Sample Type:	Ambient Air		Indoor Air		Indoor Air		Sub-Slab		Indoor Air		Sub-Slab		Ambient Air		Indoor Air		Sub-Slab		Sub-Slab		Ambient Air		Indoor Air		Sub-Slab		Sub-Slab		Ambient Air		Indoor Air	
Sample Date:	8/23/2012		8/23/2012		8/23/2012		8/23/2012		8/23/2012		8/23/2012		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013	
Concentration Detected in:	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Volatile Organic Compound																																
Freon 12	0.48	2.4	0.35	1.8	0.46	2.3	0.46	2.2	0.46	2.3	0.47	2.3	0.48	2.4	0.47	2.3	0.47	2.3	0.52 J	2.6 J	0.48	2.4	0.62	3.1	0.47	2.3	0.48	2.4	0.48	2.4	0.51	2.5
Freon 114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	0.48	0.98	0.46	0.96	0.50	1.0	ND	ND	0.46	0.95	0.088 J	0.18 J	0.54	1.1	0.33	0.69	0.12 J	0.25 J	ND	ND	0.63	1.3	0.32	0.67	0.12 J	0.24 J	ND	ND	0.51	1.1	0.43	0.88
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene	ND	ND	ND	ND	ND	ND	ND	ND	0.064 J	0.14 J	ND	ND	0.032 J	0.070 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.032 J	0.070 J
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	0.13 J	0.50 J	0.13 J	0.49 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	0.19	1.1	0.19	1.1	0.21	1.2	0.23	1.3	0.20	1.1	0.23	1.3	0.21	1.2	0.22	1.2	0.22	1.2	ND	ND	0.20	1.1	0.25	1.4	0.20	1.2	0.23	1.3	0.21	1.2	0.20	1.2
Ethanol	5.6 J+	10 J+	20 J+	38 J+	18 J+	34 J+	1.5 J+	2.9 J+	8.8	16	1.7	3.1	24	46	3.2	6.0	29	54	21	39	1.2	2.2	0.70 J	1.3 J	14	25	16	29	0.96	1.8	2.0	3.7
Freon 113	0.071 J	0.55 J	0.062 J	0.47 J	0.064 J	0.49 J	0.059 J	0.45 J	0.051 J	0.39 J	0.082 J	0.63 J	0.061 J	0.47 J	0.061 J	0.47 J	0.056 J	0.43 J	ND	ND	0.061 J	0.47 J	0.071 J	0.54 J	0.066 J	0.51 J	0.074 J	0.56 J	0.057 J	0.44 J	0.068 J	0.52 J
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	6.6	16	11	27	11	26	3.5	8.3	8.9	21	3.9	9.3	9.0	21	5.3	12	6.9	16	5.5 J	13 J	3.1	7.3	2.2	5.3	4.1	9.7	5.2	12	2.7	6.5	3.4	8.0
2-Propanol	11	28	ND	ND	ND	ND	ND	ND	0.55 J	1.4 J	0.39 J	0.96 J	10	25	0.29 J	0.71 J	11	26	6.2 J	15 J	0.30 J	0.73 J	0.16 J	0.39 J	1.9	4.6	5.6	14	0.21 J	0.52 J	0.41 J	1.0 J
Carbon Disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.092 J	0.28 J	ND	ND	ND	ND	0.70 J	2.2 J	0.10 J	0.32 J	ND	ND	ND	ND	ND	ND
3-Chloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.13 J	0.44 J	15	51	12	42	0.082 J	0.28 J	0.12 UJ	0.42 UJ	0.19 J	0.68 J	0.083 J	0.29 J	0.16 J	0.57 J	0.24 J	0.82 J	ND	ND	0.13 J	0.45 J	1.4	4.8	0.090 J	0.31 J	0.083 J	0.29 J	0.12 J	0.42 J	0.13 J	0.46 J
Methyl tert-butyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	0.27 J+	0.95 J+	0.26 J+	0.92 J+	0.28 J+	0.98 J+	0.11 UJ+	0.38 UJ+	0.31	1.1	ND	ND	ND	ND	0.76	2.7	1.1	4.0	ND	ND	ND	ND	0.16 J+	0.58 J+	1.3	4.5	0.20 J+	0.72 J+	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl Ethyl Ketone)	0.76 J	2.2 J	1.7	5.0	1.3	3.8	0.29 J	0.86 J	0.70 J	2.1 J	0.46 J	1.4 J	2.9	8.7	0.56 J	1.7 J	3.0	8.7	ND	ND	0.31 J	0.91 J	0.73 J	2.2 J	0.86	2.5	2.0	5.9	0.37 J	1.1 J	0.29 J	0.85 J
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	0.080 UJ+	0.23 UJ+	0.50 UJ	1.5 UJ	0.38 UJ+	1.1 UJ+	ND	ND	ND	ND	ND	ND	ND	ND	0.090 J	0.26 J	0.063 J	0.19 J	ND	ND	ND	ND	0.13 J	0.38 J	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	0.037 J	0.18 J	ND	ND	ND	ND	ND	ND	ND	ND	0.024 J	0.12 J	ND	ND	ND	ND	ND	ND	ND	ND	0.033 J	0.16 J	0.12 J	0.61 J	ND	ND	0.019 J	0.094 J
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	0.086 J	0.47 J	ND	ND	0.038 J	0.21 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.81	4.4	ND	ND	0.035 J	0.19 J	ND	ND	ND	ND
Cyclohexane	0.040 J	0.14 J	0.064 J	0.22 J	0.058 J	0.20 J	0.028 J	0.098 J	0.41	1.4	0.042 J	0.14 J	ND	ND	0.12 J	0.40 J	0.21	0.73	ND	ND	ND	ND	0.066 J	0.23 J	0.14	0.50	0.040 J	0.14 J	ND	ND	ND	ND
Carbon Tetrachloride	0.077 J	0.48 J	0.072 J	0.46 J	0.072 J	0.45 J	0.068 J	0.43 J	0.084 J	0.53 J	0.065 J	0.41 J	0.071 J	0.45 J	0.086 J	0.54 J	0.053 J	0.33 J	ND	ND	0.075 J	0.47 J	0.076 J	0.48 J	0.080 J	0.50 J	0.063 J	0.40 J	0.091 J	0.58 J	0.081 J	0.51 J
2,2,4-Trimethylpentane	0.067 J	0.31 J	0.068 J	0.32 J	0.056 J	0.26 J	ND	ND	0.14 J	0.66 J	ND	ND	ND	ND	0.19 J	0.90 J	0.18 J	0.83 J	ND	ND	ND	ND	0.073 J	0.34 J	0.19 J	0.88 J	0.055 J	0.26 J	0.058 J	0.27 J	0.051 J	0.24 J
Benzene	1.0	3.2	0.16 UJ	0.52 UJ	0.17	0.56	0.040 UJ+	0.13 UJ+	0.18	0.58	0.061 J	0.19 J	1.8	5.6	0.22	0.70	0.54	1.7	ND	ND	0.13 J	0.41 J	0.14 J	0.43 J	0.59	1.9	0.22	0.71	0.14 J	0.44 J	0.14	0.44
1,2-Dichloroethane	ND	ND	0.059 J	0.24 J	0.050 J	0.20 J	ND	ND	0.66 J+	2.7 J+	ND	ND	ND	ND	0.053 J	0.22 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptane	0.088 J	0.36 J	0.10 J	0.41 J	0.096 J	0.39 J	ND	ND	0.24	0.96	ND	ND	0.061 J	0.25 J	0.38	1.6	0.32	1.3	ND	ND	0.052 J	0.21 J	0.36	1.5	0.37	1.5	0.14 J	0.56 J	0.060 J	0.25 J	0.049 J	0.20 J
Trichloroethene	0.027 J	0.15 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.42	2.3	ND	ND	0.51	2.7	1.0 J	5.4 J	ND	ND	ND	ND	0.22	1.2	0.26	1.4	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	0.14 UJ+	0.50 UJ+	ND	ND	ND	ND	0.079 UJ+	0.28 UJ+	ND	ND	ND	ND	ND	ND	0.47	1.7	ND	ND	ND	ND	ND	ND	1.7	6.1	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.14 J	0.96 J	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.049 J	0.20 J	0.037 J	0.15 J	0.060 J	0.24 J	ND	ND	ND	ND	ND	ND	0.031 J	0.12 J	0.030 J	0.12 J	0.042 J	0.17 J	0.024 J	0.10 J
Toluene	0.96	3.6	8.3	31	9.9	37	ND	ND	1.1	4.0	0.16 J	0.61 J	0.61	2.3	0.68	2.5	1.2	4.4	0.60 J	2.3 J	0.22	0.85	1.3	4.8	0.89	3.4	0.39	1.5	0.18	0.70	0.21	0.79
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	0.020 J	0.14 J	0.086 J	0.58 J	0.10 J	0.68 J	0.19	1.3	ND	ND	0.22	1.5	0.17	1.1	17	110	27	180	1,300	8,600	ND	ND	0.51	3.5	3.0	21	13	86	ND	ND	ND	ND
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	0.060 J	0.25 J	ND	ND	0.060 J	0.25 J	ND	ND	0.064 J	0.26 J	ND	ND	ND	ND	ND	ND	0.071 J	0.29 J	0.13 J	0.54 J	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.067 J	0.57 J	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.25	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.076 J	0.35 J	ND	ND	0.079 J	0.36 J	ND	ND	ND	ND	ND	ND	0.030 J	0.14 J	0.054 J	0.25 J	ND	ND	ND	ND
Ethyl Benzene	0.088 J	0.38 J	0.19	0.81	0.16 J	0.68 J	ND	ND	0.074 J	0.32 J	ND	ND	0.090 J	0.39 J	0.10 J	0.45 J	0.26	1.1	ND	ND	ND	ND	0.44	1.9	0.16	0.69	0.10 J	0.45 J	0.042 J	0.18 J	ND	ND
m,p-Xylene	0.29	1.2	0.58	2.5	0.50	2.2	0.025 J	0.11 J	0.23	1.0	0.11 J	0.47 J	0.29	1.3	0.36	1.5	0.78	3.4	ND	ND	0.11 J	0.46 J	1.3	5.6	0.57	2.5	0.24	1.0	0.064 J	0.28 J	0.12 J	0.51 J
o-Xylene	0.18	0.78	0.19	0.82	0.16 J	0.68 J	ND	ND	0.080 J	0.35 J	0.038 J	0.16 J	0.51	2.2	0.12 J	0.54 J	0.74	3.2	ND	ND	0.040 J	0.18 J	0.41	1.8	0.34	1.5	0.36	1.6	0.034 J	0.15 J	0.038 J	0.17 J
Styrene	0.054 J	0.23 J	0.081 J	0.34 J	0.055 J	0.23 J	ND	ND	0.055 J	0.24 J	ND	ND	0.12 J	0.51 J	0.060 J	0.26 J	0.14 J	0.60 J	ND	ND	0.044 J	0.19 J	0.055 J	0.23 J	0.078 J	0.33 J	0.097 J	0.41 J	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cumene	ND	ND	ND	ND	ND	ND	ND	ND	0.088 J	0.43 J	ND	ND	0.026 J	0.12 J	ND	ND	0.052 J	0.26 J	ND	ND	ND	ND	ND	ND	0.032 J	0.16 J	0.034 J	0.17 J	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	0.11 J	0.54 J	ND	ND	ND	ND	ND	ND	0.060 J	0.30 J	ND	ND	0.32	1.6	0.031 J	0.15 J	0.42	2.0	ND	ND	ND	ND	0.058 J	0.28 J	0.16	0.78	0.25	1.2	ND	ND	ND	ND
4-Ethyltoluene	0.072 J	0.35 J	0.064 J	0.32 J	0.064 J	0.31 J	ND	ND	0.083 J	0.41 J	ND	ND	0.069 J	0.34 J	0.098 J	0.48 J	0.19	0.94	ND	ND	0.050 J	0.24 J	0.15	0.76	0.13	0.63	0.068 J	0.33 J	0.063 J	0.31 J	0.062 J	0.31 J
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.047 J	0.23 J	ND	ND	0.050 J	0.25 J	0.047 J	0.23 J	0.059 J	0.29 J	ND	ND	ND	ND	0.096 J	0.47 J	0.052 J	0.26 J	0.041 J	0.20 J	ND	ND	ND	ND
1,2,4-Trimethylbenzene	0.097 J	0.48 J	0.087 J	0.43 J	0.080 J	0.40 J	ND	ND	0.12 J	0.59 J	ND	ND	0.068 J	0.33 J	0.14 J	0.67 J	0.21	1.0	ND	ND	ND	ND	0.28	1.4	0.16	0.81	0.094 J	0.46 J	0.067 J	0.33 J	0.061 J	0.30 J
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1.6	9.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.69	4.1	ND	ND	0.71	4.3	1.3 J	8.1 J	ND	ND	ND	ND	0.43	2.6	0.58	3.5	ND	ND	ND	ND
alpha-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	0.10 UJ	0.75 UJ	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
J = Estimated value
J+ = Estimated value, may be biased high
UJ = Non-detected compound associated
ND = Non detect
NR = Not reported
R = Data are unusable
E = Exceeds insturment calibration range

TABLE 5

ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN VAPOR INTRUSION SAMPLES
AUGUST 2012 AND APRIL - MAY 2013

Sample Location:	44						45								46						47						48					
Property Use:	Residential						Residential								Residential						Residential						Commercial					
Field Sample ID:	IA-001-44-0413		SS-001-44-0413		SS-002-44-0413		AA-001-45-0413		IA-001-45-0413		SS-001-45-0413		SS-002-45-0413		AA-001-46-0513		IA-001-46-0513		SS-001-46-0513		IA-001-47-0413		SS-001-47-0413		SS-002-47-0413		AA-001-48-0413		SS-001-48-0413		SS-002-48-0413	
Lab Sample ID:	1304412-03A		1304412-01A		1304412-02A		1304412-07A		1304412-04A		1304412-05A		1304412-06A		1305096-04A		1305096-02A		1305096-01A		1305096-10A		1305096-12A		1305096-13A		1305096-11A		1305096-05A		1305096-03A	
Sample Type:	Indoor Air		Sub-Slab		Sub-Slab		Ambient Air		Indoor Air		Sub-Slab		Sub-Slab		Ambient Air		Indoor Air		Sub-Slab		Indoor Air		Sub-Slab		Sub-Slab		Ambient Air		Sub-Slab		Sub-Slab	
Sample Date:	4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		4/12/2013		5/1/2013		5/1/2013		5/1/2013		4/26/2013		4/26/2013		4/26/2013		4/26/2013		4/26/2013		4/26/2013	
Concentration Detected in:	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3	ppbv	ug/m3
Volatile Organic Compound																																
Freon 12	0.46	2.3	0.50	2.4	0.47	2.3	0.48	2.3	0.48	2.4	ND	ND	ND	ND	0.50	2.5	0.52	2.6	ND	ND	0.46	2.3	ND	ND	0.44 J	2.2 J	0.52	2.6	ND	ND	ND	ND
Freon 114	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	0.49	1.0	0.053 J	0.11 J	0.099 J	0.20 J	0.61	1.3	0.67	1.4	0.57 J	1.2 J	0.44 J	0.91 J	0.52	1.1	0.53	1.1	ND	ND	0.53	1.1	ND	ND	ND	ND	0.49	1.0	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene	ND	ND	ND	ND	ND	ND	0.088 J	0.19 J	0.32	0.70	0.25 J	0.56 J	ND	ND	ND	ND	ND	ND	ND	ND	0.075 J	0.17 J	ND	ND	ND	ND	0.040 J	0.090 J	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 11	0.20	1.2	0.22	1.2	0.21	1.2	0.21	1.2	0.21	1.2	0.23 J	1.3 J	ND	ND	0.22	1.2	0.23	1.3	ND	ND	0.20	1.1	ND	ND	0.24 J	1.3 J	0.22	1.2	ND	ND	ND	ND
Ethanol	3.9	7.4	17	31	26	49	1.7	3.2	4.0	7.5	18	33	130	240	3.7	6.9	38	72	6.5 J	12 J	7.3	14	ND	ND	7.4	14	2.0	3.7	5.8 J	11 J	21	40
Freon 113	0.058 J	0.44 J	0.059 J	0.45 J	0.078 J	0.60 J	0.059 J	0.45 J	0.065 J	0.50 J	ND	ND	ND	ND	0.064 J	0.49 J	0.077 J	0.59 J	ND	ND	0.066 J	0.50 J	ND	ND	ND	ND	0.058 J	0.44 J	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	8.9	21	6.0	14	8.5	20	4.2	9.9	8.0	19	10	24	12	28	3.9 J+	9.2 J+	9.3 J+	22 J+	ND	ND	4.1 J+	9.8 J+	ND	ND	14 J+	33 J+	2.6 J+	6.2 J+	12 J+	28 J+	18 J+	44 J+
2-Propanol	1.3	3.2	6.4	16	11	27	0.46 J	1.1 J	4.1	10	8.6	21	12	29	0.27 J	0.67 J	1.1	2.7	18	44	4.3	11	19 J	46 J	20	50	0.30 J	0.74 J	23	57	26	64
Carbon Disulfide	ND	ND	0.071 J	0.22 J	ND	ND	0.15 J	0.47 J	ND	ND	1.8 J	5.5 J	0.86 J	2.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.20 J	0.62 J	ND	ND	ND	ND	ND	ND
3-Chloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	0.076 J	0.26 J	ND	ND	ND	ND	0.16 J	0.54 J	0.14 J	0.50 J	ND	ND	1.4 J	4.9 J	0.17 J	0.58 J	0.17 J	0.59 J	ND	ND	0.12 J	0.42 J	ND	ND	0.13 J	0.44 J	0.11 J	0.38 J	ND	ND	ND	ND
Methyl tert-butyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexane	ND	ND	ND	ND	0.19	0.66	0.18	0.64	0.36	1.3	0.81	2.8	5.3	19	0.76 J+	2.7 J+	0.40 J+	1.4 J+	ND	ND	0.25 J+	0.88 J+	ND	ND	ND	ND	0.20 J+	0.69 J+	ND	ND	2.4 J+	8.5 J+
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl Ethyl Ketone)	4.3	13	2.1	6.2	3.4	10	0.54 J	1.6 J	0.98	2.9	2.5 J	7.3 J	42	120	0.42 J	1.2 J	0.66 J	1.9 J	1.9 J	5.6 J	0.28 J	0.82 J	ND	ND	3.0	9.0	0.32 J	0.95 J	2.5 J	7.3 J	3.2 J	9.6 J
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	0.68 J	2.0 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.57 J	1.7 J
Chloroform	0.029 J	0.14 J	0.62	3.0	0.027 J	0.13 J	ND	ND	0.046 J	0.23 J	4.0	20	27	130	ND	ND	0.059 J	0.29 J	0.58 J	2.8 J	ND	ND	ND	ND	ND	ND	ND	ND	1.2 J	5.8 J	2.5	12
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.066 J	0.36 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2 J	6.8 J	0.56 J	3.0 J
Cyclohexane	0.044 J	0.15 J	ND	ND	0.050 J	0.17 J	0.034 J	0.12 J	0.044 J	0.15 J	0.25 J	0.87 J	0.84 J	2.9 J	0.073 J	0.25 J	0.12 J	0.42 J	ND	ND	0.050 J	0.17 J	ND	ND	0.12 J	0.42 J	0.035 J	0.12 J	ND	ND	0.65 J	2.2 J
Carbon Tetrachloride	0.13 J	0.84 J	0.029 J	0.18 J	0.049 J	0.31 J	0.086 J	0.54 J	0.063 J	0.40 J	0.13 J	0.84 J	ND	ND	0.072 J	0.45 J	0.076 J	0.48 J	ND	ND	0.076 J	0.48 J	ND	ND	ND	ND	0.078 J	0.49 J	ND	ND	ND	ND
2,2,4-Trimethylpentane	0.12 J	0.58 J	ND	ND	0.093 J	0.44 J	0.057 J	0.27 J	0.090 J	0.42 J	0.17 J	0.79 J	0.98 J	4.6 J	0.28 J	1.3 J	0.13 J	0.63 J	ND	ND	0.075 J	0.35 J	ND	ND	ND	ND	0.055 J	0.26 J	ND	ND	0.54 J	2.5 J
Benzene	0.15 J	0.48 J	0.23	0.73	0.47	1.5	0.20	0.65	0.32	1.0	1.7	5.3	1.1 J	3.6 J	0.24	0.76	0.26	0.82	0.97 J	3.1 J	0.17	0.53	1.3 J	4.2 J	0.52 J	1.7 J	0.21	0.68	0.69 J	2.2 J	1.2 J	3.9 J
1,2-Dichloroethane	1.2	4.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.047 J	0.19 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptane	0.14 J	0.56 J	0.039 J	0.16 J	0.12 J	0.51 J	0.099 J	0.41 J	0.19	0.78	0.66 J	2.7 J	1.4	5.8	0.38	1.6	0.34	1.4	ND	ND	0.33	1.3	ND	ND	0.24 J	0.98 J	ND	ND	ND	ND	1.8	7.6
Trichloroethene	ND	ND	2.8	15	0.57	3.1	ND	ND	ND	ND	0.66 J	3.6 J	0.86 J	4.6 J	ND	ND	ND	ND	ND	ND	ND	ND	2.3 J	13 J	ND	ND	ND	ND	0.66 J	3.6 J	1.5	8.2
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	0.17 J	0.60 J	0.058 J	0.21 J	0.11 J	0.39 J	0.068 J	0.25 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	ND	ND	0.065 J	0.43 J	ND	ND	ND	ND	ND	ND	0.28 J	1.8 J	1.7	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	0.053 J	0.22 J	0.041 J	0.17 J	0.033 J	0.13 J	0.039 J	0.16 J	0.035 J	0.14 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.14 J	0.59 J	ND	ND	ND	ND	ND	ND
Toluene	0.54	2.0	0.29	1.1	0.59	2.2	0.36	1.4	0.65	2.4	1.7	6.5	1.6	6.0	0.82	3.1	1.4	5.4	0.75 J	2.8 J	0.42	1.6	1.5 J	5.8 J	1.3	5.0	0.75	2.8	0.64 J	2.4 J	4.3	16
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	0.071 J	0.48 J	29	200	2.5	17	0.063 J	0.43 J	3.3	22	150	1000	22	150	0.031 J	0.21 J	5.3	36	550	3800	0.18	1.2	1000	7000	140	930	ND	ND	680	4600	470	3200
2-Hexanone	0.077 J	0.32 J	0.071 J	0.29 J	0.093 J	0.38 J	0.064 J	0.26 J	0.076 J	0.31 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.24 J	2.0 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	0.048 J	0.22 J	0.072 J	0.33 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	0.14 J	0.62 J	0.061 J	0.27 J	0.15 J	0.64 J	0.054 J	0.24 J	0.13 J	0.55 J	0.38 J	1.6 J	0.34 J	1.5 J	0.12 J	0.51 J	0.16 J	0.69 J	ND	ND	0.056 J	0.24 J	ND	ND	0.28 J	1.2 J	0.057 J	0.25 J	ND	ND	0.64 J	2.8 J
m,p-Xylene	0.36	1.6	0.21	0.91	0.35	1.5	0.15 J	0.67 J	0.41	1.8	0.88	3.8	0.90 J	3.9 J	0.41	1.8	0.51	2.2	ND	ND	0.18	0.80	ND	ND	0.68	2.9	0.20	0.89	ND	ND	2.0	8.7
o-Xylene	0.10 J	0.45 J	0.32	1.4	0.55	2.4	0.091 J	0.40 J	0.19	0.81	0.60 J	2.6 J	0.84 J	3.6 J	0.15 J	0.65 J	0.16 J	0.71 J	ND	ND	0.069 J	0.30 J	ND	ND	0.37 J	1.6 J	0.073 J	0.32 J	ND	ND	0.94 J	4.1 J
Styrene	0.17 J	0.72 J	0.10 J	0.45 J	0.13 J	0.54 J	0.037 J	0.16 J	0.090 J	0.38 J	0.12 J	0.51 J	ND	ND	0.034 J	0.14 J	0.054 J	0.23 J	ND	ND	ND	ND	ND	ND	ND	ND	0.029 J	0.12 J	ND	ND	0.26 J	1.1 J
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cumene	0.044 J	0.22 J	0.029 J	0.14 J	0.034 J	0.16 J	ND	ND	0.061 J	0.30 J	0.17 J	0.84 J	0.18 J	0.86 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.085 J	0.42 J	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	ND	ND	0.25	1.2	0.36	1.8	0.030 J	0.15 J	0.067 J	0.33 J	0.33 J	1.6 J	0.53 J	2.6 J	0.038 J	0.18 J	0.040 J	0.20 J	ND	ND	ND	ND	ND	ND	0.23 J	1.1 J	ND	ND	ND	ND	0.49 J	2.4 J
4-Ethyltoluene	0.057 J	0.28 J	0.055 J	0.27 J	0.12 J	0.57 J	0.067 J	0.33 J	0.26	1.3	0.50 J	2.5 J	0.29 J	1.4 J	0.15 J	0.73 J	0.13 J	0.64 J	ND	ND	0.085 J	0.42 J	ND	ND	0.22 J	1.1 J	0.067 J	0.33 J	ND	ND	0.54 J	2.6 J
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.11 J	0.55 J	0.17 J	0.82 J	ND	ND	0.043 J	0.21 J	0.046 J	0.23 J	ND	ND	0.033 J	0.16 J	ND	ND	0.14 J	0.67 J	ND	ND	ND	ND	0.53 J	2.6 J
1,2,4-Trimethylbenzene	0.15 J	0.76 J	0.086 J	0.42 J	0.14 J	0.68 J	0.071 J	0.35 J	0.26	1.3	0.43 J	2.1 J	0.31 J	1.5 J	0.19	0.93	0.18	0.88	0.61 J	3.0 J	0.12 J	0.61 J	ND	ND	0.40 J	2.0 J	0.092 J	0.45 J	ND	ND	1.1 J	5.3 J
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.079 J	0.47 J	0.70	4.2	0.76	4.6	ND	ND	0.065 J	0.39 J	0.51 J	3.0 J	0.67 J	4.0 J	ND	ND	ND	ND	1.7	10	ND	ND	ND	ND	1.7	10	ND	ND	2.3	14	1.8	11
alpha-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
J = Estimated value
J+ = Estimated value, may be biased high
UJ = Non-detected compound associated
ND = Non detect
NR = Not reported
R = Data are unusable
E = Exceeds insturment calibration range

TABLE 6
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN SOIL
EAST TROY CONTAMINATED AQUIFER
FEBRUARY 2013

Sample Location	SB001-WAL-05-0213	SB001-WAL-08-0213	SB001-WAL-11-0213	SB002-HOB-01-0213	SB002-HOB-04-0213	SB003-HOB-01-0213	SB003-HOB-04-0213	SB004-HOB-01-0213	SB004-HOB-04-0213	SB005-WAT-01-0213	SB005-WAT-04-0213	SB006-SPN-01-0213	SB006-SPN-04-0213	SB006-SPN-06-0213
Sample Number	E3YR7	E3YR8	E3YR6	E3YS1	E3YR9/E3YR9DL	E3YS0/E3YS0DL	E3YS3/E3YS3DL	E3YS4	E3YS2	E3YS6	E3YS5	E3YS8	E3YS7	E3YS9
Location Description	Adjacent to OEPA-11 on E side of Walnut St			Loading dock area of Hobart Engineering closest to Water St		Loading dock area of Hobart Engineering closest to River		Back side of Hobart Engineering building		Backyard of 423 E Water St		Western end of Spinnaker parking lot extension		
Depth (feet)	5'	8'	11'	1'	4'	1'	4'	1'	4'	1'	4'	1'	4'	6'
Sample Type (Grab/Composite)	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Sample Date	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013
Sample Time	1010	1012	1019	1100	1105	1120	1125	1128	1130	1355	1357	1505	1510	1520
LABORATORY PARAMETERS:														
Volatile Organic Compounds (VOC) - µg/kg														
Acetone	10 U	11 U	9.2 U	9.4 U	22 U	26 U	22 U	10 U	20 U	12 U	11 U	9.1 U	9.7 U	12 U
Benzene	5.2 UJ	5.7 UJ	4.6 U	4.7 UJ	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 UJ	4.6 U	4.9 U	6.2 U
Bromochloromethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Bromodichloromethane	5.2 UJ	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Bromoform	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Bromomethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 UJ	6.5 UJ	5.7 UJ	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
2-Butanone	10 U	11 U	9.2 U	9.4 U	11 U	13 U	11 U	10 U	9.5 U	12 U	11 U	9.1 U	9.7 U	12 U
Carbon disulfide	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Carbon tetrachloride	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Chlorobenzene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 UJ	4.6 U	4.9 U	6.2 U
Dibromochloromethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Chloroethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Chloroform	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Chloromethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Cyclohexane	5.2 UJ	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,2-Dibromo-3-chloro-propane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,2-Dibromoethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,2-Dichlorobenzene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 UJ	4.6 U	4.9 U	6.2 U
1,3-Dichlorobenzene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 UJ	4.6 U	4.9 U	6.2 U
1,4-Dichlorobenzene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 UJ	4.6 U	4.9 U	6.2 U
Dichlorodifluoromethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,1-Dichloroethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,2-Dichloroethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
cis-1,2-Dichloroethene	5.2 U	5.7 U	4.6 U	4.7 U	3.5 J	6.5 U	36	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
trans-1,2-Dichloroethene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,1-Dichloroethene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,2-Dichloropropane	5.2 UJ	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
cis-1,3-Dichloropropene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
trans-1,3-Dichloropropene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,4-Dioxane	100 U	110 U	92 U	94 U	110 U	130 U	110 U	100 U	95 U	120 U	110 U	91 U	97 U	120 U
Ethylbenzene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
2-Hexanone	10 U	11 U	9.2 U	9.4 U	11 U	13 U	11 U	10 U	9.5 U	12 U	11 U	9.1 U	9.7 U	12 U
Isopropylbenzene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Methyl acetate	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Methylcyclohexane	5.2 UJ	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Methylene chloride	10 U	11 U	9.2 U	9.4 U	11 U	13 U	22 U	5.2 U	9.5 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
4-Methyl-2-pentanone	10 U	11 U	9.2 U	9.4 U	11 U	13 U	11 U	10 U	9.5 U	12 U	11 U	9.1 U	9.7 U	12 U
Methyl tert-butyl ether	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Styrene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,1,2,2-Tetrachloroethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Tetrachloroethene	5.2 U	5.7 U	2.4 J	110	1,800	1,500	2,000	13	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Toluene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.8 J	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,2,3-Trichlorobenzene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 UJ	4.6 U	4.9 U	6.2 U
1,2,4-Trichlorobenzene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 UJ	4.6 U	4.9 U	6.2 U
1,1,1-Trichloroethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,1,2-Trichloroethane	5.2 U	5.7 U	4.6 U	4.7 U	6.9	6.5 U	2.3 J	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Trichloroethene	5.2 U	5.7 U	4.6 U	89	1,700	870	1,400	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Trichlorofluoromethane	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
Vinyl chloride	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
o-Xylene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U
m,p-Xylene	5.2 U	5.7 U	4.6 U	4.7 U	5.3 U	6.5 U	5.7 U	5.2 U	4.8 U	6.2 U	5.6 U	4.6 U	4.9 U	6.2 U

Notes:
= Concentration exceeds U.S. Environmental Protection Agency Regional Screening Levels soil screening levels for protection of groundwater.
µg/kg = micrograms per kilogram
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R = The data are unusable. (The compound may or may not be present.)

TABLE 6
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN SOIL
EAST TROY CONTAMINATED AQUIFER
FEBRUARY 2013

Sample Location	**SB007-SPN-01-0213**	**SB007-SPN-04-0213**	**SB007-SPN-06-0213**	**SB008-SPN-01-0213**	**SB008-SPN-04-0213**	**SB008-SPN-06-0213**	**SB009-SPN-05-0213**	**SB009-SPN-05-0213-DUP**	**SB009-SPN-07-0213**	**SB009-SPN-09-0213**	**SB010-SPN-05-0213**	**SB010-SPN-07-0213**	**SB010-SPN-07-0213-DUP**	**SB010-SPN-09-0213**
Sample Number	**ESYT0**	**E3YT1**	**E3YT2RE**	**E3YT3**	**E3YT4**	**E3YT5RE**	**E3YW2**	**E3YW4**	**E3YW5**	**E3YW6**	**E3YT9**	**E3YW0**	**E3YW1**	**E3YW3**
Location Description	**Spinnaker parking lot**			**Spinnaker parking lot**			**NW corner of Spinnaker building**				**NW corner of Spinnaker building**			
Depth (feet)	1'	4'	6'	1'	4'	6'	5'	5'	7'	9'	5'	7'	7'	9'
Sample Type (Grab/Composite)	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Sample Date	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/13/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
Sample Time	1600	1605	1610	1645	1650	1655	1300	1300	1305	1310	1315	1320	1320	1325
LABORATORY PARAMETERS:														
Volatile Organic Compounds (VOC) - µg/kg														
Acetone	9.0 U	8.5 U	13 U	11 U	13 U	13 R	28 U	15 U	16 U	16 U	10 U	20 U	11 U	17 U
Benzene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Bromochloromethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Bromodichloromethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Bromoform	4.5 U	4.2 U	6.5 R	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Bromomethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 UJ	3.7 UJ	3.9 UJ	4.0 UJ	5.1 UJ	5.1 UJ	5.7 UJ	4.3 UJ
2-Butanone	9.0 U	8.5 U	13 U	11 U	13 U	13 R	14 U	7.4 U	7.8 U	8.1 U	10 U	10 U	11 U	8.6 U
Carbon disulfide	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Carbon tetrachloride	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Chlorobenzene	4.5 U	4.2 UJ	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Dibromochloromethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Chloroethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Chloroform	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Chloromethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Cyclohexane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,2-Dibromo-3-chloro-propane	4.5 U	4.2 U	6.5 R	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,2-Dibromoethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,2-Dichlorobenzene	4.5 U	4.2 UJ	6.5 R	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,3-Dichlorobenzene	4.5 U	4.2 UJ	6.5 R	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,4-Dichlorobenzene	4.5 U	4.2 UJ	6.5 R	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Dichlorodifluoromethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,1-Dichloroethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,2-Dichloroethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
cis-1,2-Dichloroethene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
trans-1,2-Dichloroethene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,1-Dichloroethene	4.5 U	4.2 UJ	6.5 UJ	5.5 UJ	6.3 UJ	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,2-Dichloropropane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
cis-1,3-Dichloropropene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 UJ	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
trans-1,3-Dichloropropene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 UJ	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,4-Dioxane	90 U	85 U	130 U	110 U	130 U	130 R	140 U	74 UJ	78 U	81 U	100 U	100 U	110 R	86 U
Ethylbenzene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
2-Hexanone	9.0 U	8.5 U	13 U	11 U	13 U	13 R	14 U	7.4 U	7.8 U	8.1 U	10 U	10 U	11 U	8.6 U
Isopropylbenzene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Methyl acetate	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Methylcyclohexane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Methylene chloride	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	10 U	11 U	8.6 U
4-Methyl-2-pentanone	9.0 U	8.5 U	13 U	11 U	13 U	13 R	14 U	7.4 U	7.8 U	8.1 U	10 U	10 U	11 U	8.6 U
Methyl tert-butyl ether	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Styrene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,1,2,2-Tetrachloroethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Tetrachloroethene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	3.2 J	5.1 U	2.4 J	4.3 U
Toluene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,2,3-Trichlorobenzene	4.5 U	4.2 UJ	6.5 R	5.5 U	6.3 U	6.7 R	7.0 U	3.7 UJ	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,2,4-Trichlorobenzene	4.5 U	4.2 UJ	6.5 R	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
1,1,1-Trichloroethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	9.4	3.5 J	7.8	11	16	5.1 U	7.1	2.3 J
1,1,2-Trichloroethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 UJ	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Trichloroethene	4.5 U	4.7	20	19	21	16 J	50	34	14	12	180	16	61	18
1,1,2-Trichloro-1,2,2-trifluoroethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Trichlorofluoromethane	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
Vinyl chloride	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 UJ	4.3 U
o-Xylene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 UJ	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U
m,p-Xylene	4.5 U	4.2 U	6.5 U	5.5 U	6.3 U	6.7 R	7.0 U	3.7 U	3.9 U	4.0 U	5.1 U	5.1 U	5.7 U	4.3 U

Notes:
= Concentration exceeds U.S. Environmental Protection Agency Regional Screening Levels for risk-based protection of groundwater soil screening levels.
µg/kg = micrograms per kilogram
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R = The data are unusable. (The compound may or may not be present.)

TABLE 6
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN SOIL
EAST TROY CONTAMINATED AQUIFER
FEBRUARY 2013

Sample Location	**SB011-SPN-05-0213**	**SB011-SPN-07-0213**	**SB011-SPN-09-0213**	**SB012-SPN-05-0213**	**SB012-SPN-07-0213**	**SB012-SPN-09-0213**	**SB013-SPN-05-0213**	**SB014-SPN-01-0213**	**SB014-SPN-04-0213**	**SB014-SPN-06-0213**	**SB014-SPN-06-0213-DUP**
Sample Number	**E3YT6**	**E3YT7**	**E3YT8**	**E3YX0**	**E3YX5**	**E3YX1**	**E3YX7**	**E3YW7**	**E3YW8/E3YW8DL**	**E3YX4**	**E3YX2**
Location Description	**NW corner of Spinnaker building**			**NW corner of Spinnaker building**			**NW corner of Spinnaker building**	**W side of main Spinnaker parking lot**			
Depth (feet)	5'	7'	9'	5'	7'	9'	5'	1'	4'	6'	6'
Sample Type (Grab/Composite)	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Sample Date	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
Sample Time	1340	1345	1345	1445	1450	1455	1505	1525	1525	1525	1525
LABORATORY PARAMETERS:											
Volatile Organic Compounds (VOC) - µg/kg											
Acetone	8.2 U	18 U	20 U	18 U	9.1 U	16 U	9.0 U	11 U	12 U	11 U	9.2 U
Benzene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Bromochloromethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Bromodichloromethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Bromoform	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Bromomethane	4.1 UJ	4.6 UJ	5.1 UJ	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
2-Butanone	8.2 U	9.1 U	10 U	8.9 U	9.1 U	7.7 U	9.0 U	11 U	12 U	11 U	9.2 U
Carbon disulfide	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Carbon tetrachloride	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Chlorobenzene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 UJ	5.6 U	6.1 U	5.4 U	4.6 U
Dibromochloromethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Chloroethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Chloroform	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	7.1	4.6 U
Chloromethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Cyclohexane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
1,2-Dibromo-3-chloro-propane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
1,2-Dibromoethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
1,2-Dichlorobenzene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 UJ	5.6 U	6.1 U	5.4 U	4.6 U
1,3-Dichlorobenzene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 UJ	5.6 U	6.1 U	5.4 U	4.6 U
1,4-Dichlorobenzene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 UJ	5.6 U	6.1 U	5.4 U	4.6 U
Dichlorodifluoromethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
1,1-Dichloroethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.6 J	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
1,2-Dichloroethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
cis-1,2-Dichloroethene	4.1 U	4.6 U	9.5	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	2.3 J	5.4 U	4.6 U
trans-1,2-Dichloroethene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
1,1-Dichloroethene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
1,2-Dichloropropane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
cis-1,3-Dichloropropene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 UJ	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
trans-1,3-Dichloropropene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 UJ	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
1,4-Dioxane	82 U	91 UJ	100 UJ	89 U	91 U	77 U	90 U	110 U	120 U	110 U	92 U
Ethylbenzene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
2-Hexanone	8.2 U	9.1 U	10 U	8.9 U	9.1 U	7.7 U	9.0 U	11 U	12 U	11 U	9.2 U
Isopropylbenzene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Methyl acetate	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Methylcyclohexane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Methylene chloride	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	11 U	6.1 U	5.4 U	9.2 U
4-Methyl-2-pentanone	8.2 U	9.1 U	10 U	8.9 U	9.1 U	7.7 U	9.0 U	11 U	12 U	11 U	9.2 U
Methyl tert-butyl ether	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Styrene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
1,1,2,2-Tetrachloroethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Tetrachloroethene	2.4 J	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	2.7 J	11	5.4 U	1.9 J
Toluene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
1,2,3-Trichlorobenzene	4.1 U	4.6 U	5.1 U	4.5 UJ	4.5 UJ	3.9 UJ	4.5 UJ	5.6 U	6.1 UJ	5.4 UJ	4.6 UJ
1,2,4-Trichlorobenzene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 UJ	5.6 U	6.1 U	5.4 U	4.6 U
1,1,1-Trichloroethane	2.1 J	4.6 U	5.1 U	6.5	9.1	3.1 J	6.8	5.6 U	6.1 U	5.4 U	4.6 U
1,1,2-Trichloroethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 UJ	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Trichloroethene	56	45	63	71	50	88	100	3.8 J	1,200	14	17
1,1,2-Trichloro-1,2,2-trifluoroethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Trichlorofluoromethane	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
Vinyl chloride	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U
o-Xylene	4.1 U	4.6 U	5.1 U	4.5 UJ	4.5 UJ	3.9 UJ	4.5 U	5.6 U	6.1 UJ	5.4 UJ	4.6 UJ
m,p-Xylene	4.1 U	4.6 U	5.1 U	4.5 U	4.5 U	3.9 U	4.5 U	5.6 U	6.1 U	5.4 U	4.6 U

Notes:
= Concentration exceeds U.S. Environmental Protection Agency Regional Screening Levels for risk-based protection of groundwater soil screening levels.
µg/kg = micrograms per kilogram
U = The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J = The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R = The data are unusable. (The compound may or may not be present.)

TABLE 6
ANALYTICAL RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN SOIL
EAST TROY CONTAMINATED AQUIFER
FEBRUARY 2013

Sample Location	**SB015-SPN-01-0213**	**SB015-SPN-04-0213**	**SB015-SPN-04-0213-DUP**	**SB015-SPN-06-0213**	**SB016-WAT-01-0213**	**SB017-WAT-01-0213**	**SB017-WAT-01-0213-DUP**	**SB018-WAT-01-0213**
Sample Number	**E3YX8**	**E3YW9**	**E3YX3**	**E3YY2**	**E3YY1**	**E3YX6**	**E3YX9**	**E3YY0**
Location Description	**W side of main Spinnaker parking lot**				**W side of backyard of 405 Water St**	**E side of backyard of 405 Water St**		**Backyard of 413 Water St**
Depth (feet)	1'	4'	4'	6'	Surface	Surface	Surface	Surface
Sample Type (Grab/Composite)	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Sample Date	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013	2/14/2013
Sample Time	1550	1555	1555	1600	1640	1645	1645	1650
LABORATORY PARAMETERS:								
Volatile Organic Compounds (VOC) - µg/kg								
Acetone	46	9.1 U	10 U	12 U	23	21	17	19
Benzene	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Bromochloromethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Bromodichloromethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Bromoform	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Bromomethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
2-Butanone	6.7 U	9.1 U	10 U	12 U	15 U	16 U	15 U	13 U
Carbon disulfide	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Carbon tetrachloride	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Chlorobenzene	3.3 UJ	4.5 U	5.0 U	6.2 U	7.6 UJ	7.8 U	7.7 UJ	6.4 UJ
Dibromochloromethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Chloroethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Chloroform	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Chloromethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Cyclohexane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,2-Dibromo-3-chloro-propane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,2-Dibromoethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,2-Dichlorobenzene	3.3 UJ	4.5 U	5.0 U	6.2 U	7.6 UJ	7.8 U	7.7 UJ	6.4 UJ
1,3-Dichlorobenzene	3.3 UJ	4.5 U	5.0 U	6.2 U	7.6 UJ	7.8 U	7.7 UJ	6.4 UJ
1,4-Dichlorobenzene	3.3 UJ	4.5 U	5.0 U	6.2 U	7.6 UJ	7.8 U	7.7 UJ	6.4 UJ
Dichlorodifluoromethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,1-Dichloroethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,2-Dichloroethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
cis-1,2-Dichloroethene	5.3	4.5 U	180	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
trans-1,2-Dichloroethene	3.3 U	4.5 U	12	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,1-Dichloroethene	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,2-Dichloropropane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
cis-1,3-Dichloropropene	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
trans-1,3-Dichloropropene	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,4-Dioxane	67 U	91 U	100 U	120 U	150 U	160 U	150 U	130 U
Ethylbenzene	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
2-Hexanone	6.7 U	9.1 U	10 U	12 U	15 U	16 U	15 U	13 U
Isopropylbenzene	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Methyl acetate	3.3 U	4.5 U	5.0 U	6.2 U	7.9	4.7 J	7.7 U	4.5 J
Methylcyclohexane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Methylene chloride	3.3 U	9.1 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
4-Methyl-2-pentanone	6.7 U	9.1 U	10 U	12 U	15 U	16 U	15 U	13 U
Methyl tert-butyl ether	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Styrene	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,1,2,2-Tetrachloroethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Tetrachloroethene	3.3 U	6.0	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Toluene	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,2,3-Trichlorobenzene	3.3 UJ	4.5 U	5.0 UJ	6.2 U	7.6 UJ	7.8 U	7.7 UJ	6.4 UJ
1,2,4-Trichlorobenzene	3.3 UJ	4.5 U	5.0 U	6.2 U	7.6 UJ	7.8 U	7.7 UJ	6.4 UJ
1,1,1-Trichloroethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
1,1,2-Trichloroethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Trichloroethene	3.3 U	4.5 U	17	3.5 J	7.6 U	7.8 U	7.7 U	6.4 U
1,1,2-Trichloro-1,2,2-trifluoroethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Trichlorofluoromethane	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
Vinyl chloride	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
o-Xylene	3.3 U	4.5 U	5.0 UJ	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U
m,p-Xylene	3.3 U	4.5 U	5.0 U	6.2 U	7.6 U	7.8 U	7.7 U	6.4 U

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