



March 28, 2013

Mr. Jim Delwiche
Wisconsin Department of Natural Resources
141 NW Barstow Street, Room 180
Waukesha, Wisconsin 53188

**RE: SUB-SLAB VAPOR SAMPLING AND 2012 GROUNDWATER QUALITY REPORT
KLINKE CLEANERS FOX RUN
WAUKESHA, WI
BRRTS# 02-68-535535**

Dear Mr. Delwiche:

Saga Environmental and Engineering, Inc. (Saga) is pleased to provide one hard copy and one electronic copy of the Sub-Slab Vapor Sampling and 2012 Groundwater Quality Report for the above referenced property located in Waukesha, Wisconsin. The Report summarizes sub-slab soil vapor probe installation and sampling results and vapor intrusion pathway analysis and groundwater monitoring results for the monitoring events conducted in March and June 2012. Soil interim remedial action activities conducted at the site in 2010 and 2011 were discussed in detail in the November 2011 Interim Remedial Action Documentation Report.

If you have any questions please contact the undersigned at (920) 674-3411.

Regards,

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**SUB-SLAB VAPOR SAMPLING AND
2012 GROUNDWATER QUALITY REPORT**

***Klinke Cleaners – Fox Run
2346 West St. Paul Avenue
Waukesha, WI 53188***

March 28, 2013

Prepared By:



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Project No. 05-529



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1. BACKGROUND

1.1 SITE DESCRIPTION

The former Klinke Cleaners Fox Run facility is located within the vacant Fox Run Shopping Center at 2346 West St. Paul Avenue, near the intersection of St. Paul Avenue and Sunset Road in Waukesha, WI (Figure 1). The surrounding area is mixed-use commercial and industrial.

The strip mall building the Klinke Cleaners facility was located in was constructed in the late 1970s. The former Klinke Cleaners facility at 2346 W. St. Paul Ave. was originally operated as a dry cleaning facility by Fabricare of Waukesha, and drycleaning operations began around the time the building was constructed. Klinke Cleaners purchased the dry cleaning operation from Fabricare of Waukesha on October 1, 2000. Klinke Cleaners discontinued use of tetrachloroethene (PCE) at the facility shortly thereafter, in 2002. The strip mall facility is currently vacant. Based on recent conversations with the current property manager, the presence of available commercial rental space in new buildings in the vicinity of the Fox Run mall, and the condition of the Fox Run facility, it is likely that the current building will be demolished before it is re-occupied by tenants.

1.2 PREVIOUS INVESTIGATIONS

Background information on the site, site history, investigation history, interim remedial action measures (IRAMs), geologic and hydrogeologic setting, current understanding of contaminant sources, release mechanisms, and nature and extent of site contamination has already been presented in multiple previous reports and will not be repeated in detail here. However, for clarity, a summary of this information is presented below.

1.2.1 2004-2005 Drake Environmental Phase II Investigation

In September 2004, Drake Environmental, Inc. (Drake) conducted a limited Phase II Site Investigation on behalf of the owner of the strip mall property (Richter Realty & Investment, Inc. (Richter)), which included completion and sampling of four Geoprobe soil borings (P-1 through P-4) and installation and sampling of four temporary groundwater monitoring wells (TW-1 through TW-4). Soil and groundwater results of the investigation indicated that a release of dry cleaning solvents (PCE) had occurred at the property, and the Wisconsin Department of Natural Resources (WDNR) was notified of the contamination on October 29, 2004.



Additional site investigation was conducted by Drake on behalf of Richter in February and March 2005. The March 2005 site investigation included advancement of six soil borings (MW-1 through MW-6), all of which were subsequently completed as Wisconsin Administrative Code (W.A.C.) Ch. NR 141-compliant groundwater monitoring wells (Figure 2). Laboratory analytical results of the soil samples collected indicated that PCE concentrations were highest in the samples collected adjacent to the back door of the facility. However, it should be noted that the “soil” samples collected during this investigation were saturated soil samples, and are therefore more representative of a mixture of soil and groundwater conditions, rather than soil conditions.

Groundwater was measured at approximately 10 feet bgs in shallow monitoring wells MW-2, MW-3, MW-5 and MW-6 (screened from approximately 3 to 18 feet bgs, within the surficial sand and silt layer). Groundwater was measured in deeper monitoring wells MW-1 and MW-4 (screened from approximately 15 to 30 feet bgs, generally within the underlying clay till) at approximately 23 feet bgs. Groundwater PCE concentration distribution was similar to observed soil PCE concentration distribution, with the highest concentrations observed beneath the building and adjacent to the back door.

1.2.2 2005-2010 RSV Engineering, Inc. Investigation

In April 2005, RSV Engineering, Inc. (RSV) was contracted by Klinke Cleaners to perform additional site investigation at the Klinke Cleaners Fox Run facility. Between May 2005 and May 2007, RSV advanced 26 additional soil borings and collected and submitted an additional 28 soil samples for laboratory analysis of VOCs (Figure 3), to further define the extent and magnitude of elevated soil PCE concentrations behind the building. Four additional groundwater monitoring wells were also installed at the site by RSV in November 2005 (MW-3P), October 2008 (MW-7 and MW-8, on the Cooper Power facility property adjacent to the north), and September 2009 (MW-9, downgradient of MW-5), to further evaluate the horizontal and vertical extent of groundwater PCE impacts at the site (Figure 2).

1.2.2.1 Soil Results

Soil analytical results indicated that soil PCE concentrations as high as 5,100 mg/kg were present in soil adjacent to the back door (B-5). However, concentrations of this magnitude were limited in extent to the immediate vicinity of the back door, with concentrations decreasing radially from that point to the north, east, and west. Soil PCE concentrations in samples collected along the northern property boundary were near or below laboratory detection limits for PCE in that area (Figure 3).



1.2.2.2 Groundwater Results

Groundwater Flow

During the RSV investigation, depth to water measured at site monitoring wells ranged from approximately 6.5 to 10 feet bgs in the shallow monitoring wells to 21 to 24 feet bgs in the deeper groundwater monitoring wells (Table 1).

Similar to previous investigation results, groundwater contours constructed from water table surface elevations indicated that shallow groundwater flowed to the east in the vicinity of monitoring wells MW-3 and MW-5, and to the northeast in the vicinity of monitoring well MW-2. Data collected from the two monitoring wells installed on the Cooper Power property to the north indicated that there is also a southerly component of groundwater flow. Specifically, groundwater appeared to flow radially from a high spot near monitoring well MW-8 to the southwest toward monitoring well MW-6 and to the southeast toward monitoring wells MW-3 and MW-5. The water table elevation at monitoring well MW-2 was generally slightly higher than the water table elevation at monitoring wells MW-5 or MW-6, indicating groundwater flows to the northeast in the general area of monitoring well MW-2.

Piezometric surface elevation contours were also constructed from water elevations in deep monitoring wells (MW-1, MW-3P and MW-4). Contours constructed by RSV for the January 2006 piezometric surface indicated that deeper groundwater flowed to the north and northwest across the site. Piezometric surface contours constructed by RSV from the November 2008 and April 2009 deep groundwater elevations appeared to indicate that flow had reversed at that time and flowed to the south. However, significant lateral flow within the till unit is unlikely, and vertical flow likely dominates.

Groundwater Analytical Data

Volatile organic compounds were not detected in the groundwater samples collected from monitoring wells MW-7 or MW-8 installed on the adjacent property to the north (Table 2). Additionally, analytical results of the groundwater samples collected in November 2008 from monitoring wells previously sampled suggested that VOC concentrations in shallow and deep groundwater were stable at the site. PCE concentrations in samples collected from monitoring well MW-5 continued to be the highest at the site (Table 2).

Based on groundwater flow patterns documented at the site in 2008, groundwater appeared to flow to the east near monitoring well MW-5. As such, no monitoring well was present downgradient of MW-5 in November 2008. Additionally, as the area is a major utility corridor, and was considered a potential preferential pathway for groundwater flow, RSV



recommended that a water table monitoring well be installed downgradient (east) of monitoring well MW-5.

Monitoring well MW-9 was installed downgradient of monitoring well MW-5 in September 2009. No VOCs were detected at this location. Based on the groundwater analytical results of samples collected from monitoring well MW-9, installed directly downgradient of monitoring well MW-5 and along the utility corridor, it did not appear that the utility corridor was acting as a preferential pathway for contaminant transport in this direction. In addition, the horizontal extent of groundwater PCE concentrations exceeding the ES had been defined in the downgradient direction at that time.

PCE concentrations in site piezometers were below the NR 140 enforcement standard (ES) in November 2008. However, concentrations of PCE were approximately 3 orders of magnitude higher in monitoring well MW-5 than monitoring well MW-3, and the potentiometric surface elevation difference between the piezometer and water table well in the MW-3 nest suggested there was a strong downward gradient in the area of these wells. Consequently, RSV recommended that an additional piezometer be installed downgradient of monitoring well MW-5. However, as the downgradient extent of PCE concentrations in shallow groundwater exceeding the ES remained undefined at that time, RSV recommended that the location of the piezometer be selected following completion of additional shallow groundwater investigation activities, particularly with respect to the utility corridor's potential to act as a preferential pathway for groundwater flow.

1.2.3 2010-2011 Saga Environmental and Engineering, Inc. Investigation

Based on the analytical results of groundwater samples collected from monitoring well MW-9 in September 2009 and November 2010, Saga Environmental and Engineering, Inc. (Saga) installed a piezometer adjacent to monitoring well MW-5 in March 2011 (P-5). Other than the detection of PCE at a concentration of 0.56 µg/L during the initial sampling event in March 2011, VOCs have not been detected in groundwater samples collected from deep monitoring well P-5. The general absence of VOCs in groundwater collected from the deeper till zone adjacent to the most highly-impacted shallow well indicate that the vertical extent of groundwater contamination has been defined and that the till unit has not been significantly impacted by the release of PCE.



2. SUMMARY OF INTERIM REMEDIAL ACTIONS (IRAM)

Based on the perceived proximity of groundwater contamination at the site to a nearby City of Waukesha water supply well (located near the driveway into the Fox Run Shopping Center off of Sunset Drive), the WDNR required interim remedial action measures (IRAMs) be conducted to mitigate potential risk to this receptor. IRAM activities were planned as a two-pronged approach: Excavation with off-site disposal for the soils adjacent to the building to the north (near the back door), and in-situ chemical oxidation via reagent injection (ISCO) for impacted soils beneath the building. Excavation and ISCO injection were generally completed as outlined in RSV's April 8, 2009 Interim Action Plan. The area in which PCE concentrations were above 1 mg/kg were generally targeted for remediation (Figure 3). However, due to the presence of numerous utilities, a transformer and trees in the grassed area of soil with concentrations exceeding 1 mg/kg, that area was planned to remain in place.

2.1 EXCAVATION

Prior to excavation activities commencing, RSV completed a WDNR Remediation Site Hazardous Waste Determination and requested a "contained-out" determination be made for the disposal of the PCE-impacted soil, in accordance with the US EPA Soil Screening Guidance. RSV proposed that soil containing PCE or trichloroethene (TCE), which would otherwise be considered a "listed" hazardous waste under Wisconsin and US EPA regulations, be considered a non-hazardous waste for disposal and management purposes. The condition would apply when soil PCE concentrations were less than 35 mg/kg and TCE concentrations were less than 7.15 mg/kg. Concentrations were based on site-specific screening levels calculated for the industrial site direct contact pathway using the US EPA Soil Screening Guidance.

The waste determination was approved by the WDNR on May 21, 2009. However, although the "contained-out" determination made by the WDNR applied to PCE concentrations less than 35 mg/kg, the receiving landfill (Waste Management's Metro refuse disposal facility (RDF)) determined that it would not accept soil with concentrations exceeding 14 mg/kg PCE as non-hazardous. Therefore, although the entire area behind the building outlined on Figure 3 was planned for excavation, the decision was made to leave the area surrounding the location of soil boring B-5 in place, to be treated during the chemical oxidant injection.

Excavation activities were completed May 27th through June 2nd, 2009. During excavation activities, a sanitary sewer line was uncovered that runs parallel to the rear of the building, approximately three to four feet north of the building. Laterals were observed to run at angles from the building foundation to the sewer line, making excavation in this area extremely difficult. Based on the potential for significant damage to the sewer line, which



was constructed of PVC pipe, the excavation team decided it would be best to leave the area surrounding the pipe unexcavated. In addition to multiple subsurface utilities, two groundwater monitoring wells were also present within the excavation area. Monitoring well MW-3 and piezometer MW-3P were abandoned during site excavation activities, due to the likelihood that their integrity would be compromised during excavation activities. The approximate extent of the actual excavation is illustrated on Figure 4. Approximately 601 tons of PCE-impacted soil were removed from the site and transported by dump truck for disposal at Metro RDF.

Pursuant to WDNR guidelines, at the completion of the excavation work, confirmation samples were collected at 25-foot intervals along the sidewalls of the excavation and one base sample was collected for every 100 square feet of excavation. Nine excavation wall samples (EW-101 through EW-109) and 22 excavation base samples (EB-101 through EB-122) were collected and analyzed for volatile organic compounds VOCs (Figure 4).

Following completion of excavation activities, the excavation was backfilled with 651 tons of granular backfill, and repaved with asphalt to match the surrounding surface.

2.1.1 Excavation Confirmation Soil Analytical Results

Soil analytical results of excavation confirmation samples collected indicated that soil PCE concentrations in several locations remained above the preliminary remediation goal of 1 mg/kg. However, soil PCE concentrations did not exceed the calculated US EPA site-specific soil screening level (SSL) of 12.3 mg/kg in any of the excavation confirmation soil samples collected (Figure 4).

2.2 CHEMICAL OXIDANT (Cool-Ox™) INJECTIONS

RSV selected Deep Earth Technologies (DTI) to implement their patented Cool-Ox™ process at the site. Cool-Ox™ is an in-situ (and ex-situ) remediation technology that combines controlled chemical oxidation with accelerated biodegradation subsequent to the oxidation phase. The process is based upon using hydrogen peroxide as the generator of the oxidizing radicals. However, unlike the Fenton or Fenton-like processes that use liquid hydrogen peroxide, the Cool-Ox™ process generates hydrogen peroxide from solid peroxygens that are injected into the soil or groundwater in an aqueous suspension. Once in place, the peroxygens react with water to produce hydrogen peroxide.

According to DTI, the distinguishing feature of the Cool-Ox™ technology is that it does not require the injection of metal catalysts to activate the production of oxidizing radicals in the substrata; thus, the creation of heat is eliminated. Therefore, a very important characteristic of the Cool-Ox™ technology is that the chemical reaction is controllable.



Because most peroxygens are only sparingly soluble in aqueous solutions, their dissolution rate is quite slow. Therefore, once injected they would be expected to remain in the contaminated media for an extended period of time before they become soluble. This low solubility characteristic also would be expected to allow peroxygens to be hydraulically distributed by the injection equipment, thereby theoretically increasing the radius of influence of the injection point. This allegedly significantly increases the probability of the oxidizer contacting the contaminants. In addition, another distinguishing feature of the Cool-Ox™ process is that it does not require the introduction of iron salts to produce the radicals necessary for chemical oxidation. Therefore, the reagents are iron free.

2.2.1 Initial injection

The initial injection was completed June 2nd through 4th, 2009. All IPs were treated from land surface to approximately 10 feet bgs, with each point receiving either 36 or 72 gallons of Cool-Ox™ reagent. The quantity of reagent utilized per point was doubled in the areas where high PCE concentrations were previously documented in this area (adjacent to the back door and in former operations areas). During the June 2009 injection event, a total of 2,484 gallons of Cool-Ox™ reagent was applied to the subsurface at the site in 41 injection point locations.

2.2.1.1 September 2009 Post-Injection Soil Sampling Results

Post-injection soil analytical results are summarized on Figure 4. Significant PCE concentration reductions were observed near the back door of the facility (CS-103), where concentrations decreased from 5,100 mg/kg pre-injection (B-5) to 34.2 mg/kg post-injection (CS-103). However, soil concentrations in all treatment areas remained above calculated US EPA SSLs of 12.3 mg/kg. One proposed explanation for the remaining high levels of PCE following injection was inadequate contact between reagent and source material, primarily due to daylighting and short-circuiting of reagent back to the surface. DTI personnel reported that, based on their project experience, daylighting is generally expected to decrease with additional injections, as subsurface material becomes more “crumbly” after treatment. In addition, calculations as to the reagent loading rate necessary to reduce PCE concentrations below screening levels may have underestimated the contaminant mass present in the subsurface. As very few source area soil samples had been collected prior to completion of the June 2009 chem.-ox injection event, this was likely a contributing factor.

To address soil concentrations remaining above USEPA SSLs, three additional smaller-scale injections were planned to be conducted, each about 3 months apart. The additional injections would use less reagent, pumped at a slower rate into the subsurface and be



carried out over time to maximize contact time between reagent and contaminant mass in the soil.

2.2.2 Additional Injections

The three additional injections were completed in November 2009, March 2010 and June 2010. DTI was again contracted to perform the injection work, which continued to utilize the Cool-Ox™ reagent technology. As discussed above, the additional injection events were designed to maximize reagent contact with the substrate and minimize surface expression (daylighting) of the reagent. DTI's previous site experience had indicated that daylighting is lessened during injections subsequent to the initial injection event, as the physical properties of the soil are altered with the introduction of the reagent (soil becomes more "crumbly" or porous), which facilitates more efficient distribution of the reagent within the subsurface. As expected, the occurrence of daylighting did decrease with each subsequent injection event completed at the Fox Run facility.

Injection points were spaced at 4-foot intervals, and approximately 32 gallons of chemical reagent were injected into each location during each injection event. Two injection intervals were used at each IP during each event. Sixteen gallons of reagent were injected into each of the 2 and 4 feet bgs intervals at each location during the first injection event; the 6 and 8 feet bgs intervals during the second injection; and the 3 and 5 feet bgs intervals during the third injection event.

A total of approximately 2,784 gallons of Cool-Ox™ reagent was applied to the site during the three additional injection events.

2.2.2.1 December 2010 Soil Sampling Results

Post-injection soil confirmation samples collected in December 2010 were co-located with previous soil samples collected in September 2009 to the extent possible, to allow for more accurate comparison of pre and post second round of injection concentrations. Laboratory analytical results of soil samples collected in December 2010 indicated that the additional injections were generally not successful in destroying the contaminant mass in the unsaturated zone (Figure 5). Possible explanations include: 1) loading calculations by contractor did not account for enough contaminant mass in subsurface, 2) insufficient contact between reagent and contaminant achieved, and 3) natural subsurface conditions interfered with the reaction or consumed the oxidant mass reducing its availability to react with the target contaminants.

In addition, the mechanism by which the Cool-Ox™ reagent in particular operates may contribute to its observed ineffectiveness at the Klinke Cleaners Facility, based on site-



specific circumstances. As discussed in Section 2.2 above, the reaction between the Cool-Ox™ reagent and contaminants in the subsurface is necessarily a multi-step process. First, solid peroxygens react with water in solution to produce hydrogen peroxide, and the rate of dissolution of peroxygens is slow. Then, the chemical breakdown of VOCs in the soil and groundwater occurs only after this released hydrogen peroxide comes into contact with organic contaminants in the subsurface. This extended oxidation process, coupled with the potential for subsurface materials to increase in permeability after the initial injection suggests that the efficacy of additional injections could potentially decrease, as there may not be sufficient time for the reactions to occur (dissolution of peroxygens, release of sufficient hydrogen peroxide, and adequate contact with VOCs) before the reagent moves through the target interval. However, although the circumstances outlined above would make treatment of the unsaturated zone challenging, the slow release of hydrogen peroxide on contact with water over time would be expected to have a positive long-term effect on groundwater VOC concentrations at the site, as discussed below.



3. VAPOR INTRUSION INVESTIGATION

On December 16, 2010, the WDNR released the final version of its vapor intrusion guidance entitled *Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin*. The purpose of the guidance document is to identify the conditions where assessment of the vapor intrusion pathway at contaminated sites is necessary. Considerations to be included in an evaluation of whether the potential for a vapor intrusion pathway may exist include: volatility of contaminants, potential for degradation/sorption in the vadose zone, contaminant concentration, distance to structures, building structure, competence of foundation, presence of utilities and preferential flow paths, etc.

Based on the relatively high PCE concentrations detected in soil and groundwater beneath and near the facility building, soil vapor screening to evaluate the potential for organic vapors to pose a vapor intrusion risk is necessary. The WDNR guidance indicates that sub-slab vapor samples are the most appropriate and relevant samples to collect for evaluation of the potential for vapor intrusion risk where a building is present in close proximity to the identified contamination. For the initial screening of the vapor intrusion pathway, Saga and WDNR agreed that 6 sub-slab vapor probes would be installed. Vapor screening locations were selected based on previous analytical results of soil and groundwater samples collected at the site, as well as access considerations.

3.1 SUB-SLAB PROBE INSTALLATION

On October 24, 2012 Saga mobilized to the site for installation of the sub-slab soil vapor probes. Six probes were installed at the approximate locations indicated on the attached Figure 6. One probe was installed within the former hardware store adjacent to the Klinke facility (VP-1), two probes were installed within the former Klinke Cleaners facility (VP-2 and VP-3), one probe was installed within the utility room adjacent to the north of the former Klinke facility (VP-4), one probe was installed within the former beauty salon adjacent to the east of the former Klinke facility (VP-5), and one probe was installed within the former dentist office, further to the east of the former Klinke facility.

Prior to probe installation, a 1/2-inch hole was drilled through the floor slab at each location utilizing a portable hammer drill. A one-piece brass Cox-Colvin Vapor Pin™ probe was installed in each drillhole, utilizing the patented Cox-Colvin silicone sleeve to ensure a tight seal between the probe and the drillhole (see Attachment A for photographs of the probes).

Saga returned to collect vapor samples from the probes on November 14, 2012 (once an adequate supply of 6-liter Summa canisters was available from the analytical laboratory). Samples were collected in accordance with Saga Standard Operating Procedure ENV-400 (Attachment B) and with the WDNR VI Guidance. Prior to sample collection, the



competency of each sealed probe was tested utilizing a helium leak test. The sampling tubing was connected to the sampling port of the probe and a shroud was placed over the tubing and probe. Helium was introduced into the shroud, and the air being pumped out of the probe was simultaneously tested for helium content using a hand-held helium detector. Standard procedure is that if helium was detected at a volume of greater than 10%, probe fittings are to be checked and the ground surface seal augmented until a reading of less than 10% helium is achieved. However, no readings exceeded or approached 10% during leak testing activities. Following successful leak testing at each location, a soil vapor sample was then collected into a laboratory-supplied 6-liter Summa canister and submitted to Pace Analytical Services, Inc. for analysis of PCE and its daughter products by US EPA TO-15 (Attachment C).

3.2 VAPOR ANALYTICAL RESULTS

Based on the WDNR VI Guidance, Indoor Air Vapor Action Levels (VALs) published by the US EPA in the Regional Screening Level Summary Table (USEPA, 2012) may be utilized to calculate screening levels for sub-slab vapor, groundwater, etc. by applying an appropriate standard attenuation factor. The non-residential indoor air VAL for PCE is $180 \mu\text{g}/\text{m}^3$. Applying an attenuation factor of 0.1 for the attenuation afforded by the slab (per the WDNR Guidance) results in a sub-slab Vapor Risk Screening Level (VRSL) of $1800 \mu\text{g}/\text{m}^3$.

PCE was detected at concentrations exceeding the sub-slab soil vapor VRSL in all vapor samples collected during the November 14, 2012 sampling event (Figure 6 and Attachment C). PCE concentrations ranged from $36,400 \mu\text{g}/\text{m}^3$ (VP-4) to $5,180,000 \mu\text{g}/\text{m}^3$ (VP-5), with the highest concentrations detected in the sample collected from beneath the former beauty salon (adjacent to the east of the former Klinke space, Figure 6). The lowest concentrations of PCE were detected in the samples collected from the former hardware store and utility room adjacent to the west and north of the former Klinke space, respectively.

Vapor-phase contaminant migration and distribution are affected by features beneath the building such as footings, structural fill, utility conduits, etc. Vapor phase contaminant concentration distribution is also affected by the distribution of the contaminant source (i.e. unsaturated soil or groundwater). Relatively high concentrations of PCE were detected in the samples collected from vapor probes VP-5 and VP-6, east of the former Klinke facility, compared to the relatively lower concentration of PCE detected to the west, at vapor probe VP-1. The presence of higher vapor-phase PCE concentrations east of the Klinke facility coincides with an easterly groundwater flow direction in this area, and may indicate that there is significant groundwater contamination beneath the building that has not been characterized.



PCE was detected at a concentration of 8,860,000 µg/L in the groundwater sample collected from temporary monitoring well P-4 (near vapor monitoring point VP-3). This concentration exceeds the aqueous solubility limit of PCE and indicates the potential presence of non-aqueous phase liquid (NAPL). Based on the historic groundwater results at P-4 and recent vapor monitoring results, Saga recommends additional characterization of groundwater conditions beneath the building, as discussed in Section 4 below.

Based on the analytical results of sub-slab soil vapor samples collected during November 2012, the extent of soil vapor PCE concentrations exceeding sub-slab VRSLs has not been defined. Additional vapor sampling will be necessary to evaluate this pathway. As noted above, the Fox Run Shopping Center building is currently vacant. As no receptors (occupants) are present, no immediate action is necessary at this time to mitigate the sub-slab vapors. However, if the building or a portion thereof becomes occupied in the future, vapor mitigation will be necessary at that time.



4. CURRENT GROUNDWATER CONDITIONS

4.1 Shallow Groundwater Conditions

Shallow groundwater flow continues to be generally to the east in the vicinity of monitoring wells MW-5 and MW-9, to the northeast in the vicinity of monitoring well MW-2 (and presumably beneath the building), and to the south and east from monitoring well MW-8 (Figure 7). Analytical results of groundwater samples collected in March and June 2012 continue to indicate that the horizontal and vertical extents of groundwater impacts have generally been defined (with the exception of to the west of monitoring well MW-6), and are limited (Figure 8). However, as noted above, the distribution and magnitude of vapor-phase PCE concentrations beneath the building indicate that additional characterization of the groundwater plume beneath the building is necessary.

Comparison of PCE concentrations detected in groundwater samples collected from monitoring well MW-5 in November 2008 (before IRAM activities) and June 2012 indicate that there has been an approximately 66% reduction in PCE concentrations at that location. Groundwater PCE concentrations reached a low concentration of 11,100 µg/L at monitoring well MW-5 in March 2011 (which represented an 80% decrease from the PCE concentration of 55,600 µg/L at that location in November 2008). However, PCE concentrations have increased to 19,100 µg/L as of June 2012. The increasing groundwater PCE concentrations at MW-5 may be related to movement of more highly contaminated groundwater from beneath the building to the southwest.

In addition, groundwater PCE concentrations in groundwater samples collected from monitoring well MW-6 have continued to increase since groundwater monitoring began at that location in 2005. As MW-6 is in an expected upgradient location from the identified source area, it is uncertain what is causing the observed increase in PCE concentrations at this location. Additional characterization of the groundwater plume between the former drycleaning facility and the location of MW-6 is also necessary, as discussed below.

4.2 Till Groundwater Conditions

Regional groundwater flow is expected to be to the east or southeast, toward the Fox River, located approximately 1000 feet east of the Klinke Cleaners Fox Run facility. Substantial seasonal fluctuation is not generally expected in a very low permeability formation, such as the Waukesha Till. The reason for the apparent fluctuation in groundwater flow in the till from northeast to southwest is unknown. The horizontal gradient in the till is relatively flat, and vertical flow through fractures in the clay likely dominates. As the till is generally not affected by the groundwater PCE plume related to the Klinke Cleaners facility (discussed



below), more detailed investigation and evaluation of the apparent variability in groundwater head (and associated groundwater flow) in the till formation has not been conducted.

PCE was detected in the initial groundwater sample collected from piezometer P-5 at 0.56 µg/L, slightly above the NR 140 Preventive Action Limit (PAL), in March 2011, but has not been detected above a method detection limit of 0.45 µg/L since that time (Table 2). PCE has been consistently detected at a concentration near 1 µg/L (between the PAL and the ES) in the groundwater samples collected from deep monitoring well MW-1 from March 2005 through June 2012. PCE has not been detected in groundwater samples collected from deep monitoring well MW-4 since January 2006.

Current and historic groundwater monitoring results from site monitoring wells screened in the clay till formation indicate that the till has generally not been impacted by the PCE release at the former Klinke Cleaners facility. The vertical extent of groundwater impacts has been defined and is limited. In addition, based on the expected low hydraulic transmissivity of the till formation, and the very low concentrations of PCE detected in only one sample collected from piezometer P-5 (adjacent to the highest area of shallow groundwater concentrations), it is not expected that groundwater PCE concentrations historically detected in piezometers MW-1 or MW-4 are related to a historic release from the former Klinke Cleaners facility location.



5. RECOMMENDATIONS

Significant unsaturated source removal and treatment have been completed at the former Klinke Cleaners facility. However, although the Cool-Ox™ reagent injected into the unsaturated zone at the site may react with contaminant mass in the saturated zone, these effects are uncertain and may be minimal and relatively short-lived. The ISCO injection was not designed or intended to treat contamination in the saturated zone, and no groundwater remedy has been implemented at the site.

Only one groundwater sample has been collected from beneath the building, from temporary monitoring well P-4. Considering the distribution and magnitude of vapor-phase PCE concentrations beneath the building, the historic PCE concentration detected in the groundwater sample collected from temporary monitoring well P-4, and the direction of groundwater flow, it appears likely that substantial contaminant mass remains in the saturated zone below the building. Characterization of the saturated source zone beneath the building is critical for evaluating future attenuation or the need for additional action.

TABLES

TABLE 1
 KLINKE CLEANERS
 FOX RUN SHOPPING CENTER
 WAUKESHA, WISCONSIN
 GROUNDWATER ELEVATIONS

Well Location	Date	Top of Casing Elevation (feet)	Depth to Water from TOC (feet)	Water Table Elevation (feet)
MW-1	1/12/2006	101.39	24.60	76.79
	11/3/2008		24.48	76.91
	2/25/2009		23.89	77.50
	4/28/2009		22.05	79.34
	11/10/2010		24.43	76.96
	3/31/2011		22.50	78.89
	6/28/2011		22.5	78.89
	3/7/2012		24.01	77.38
6/12/2012	23.40	77.99		
MW-2	1/12/2006	100.21	8.68	91.53
	11/3/2008		8.84	91.37
	2/25/2009		8.40	91.81
	4/28/2009		7.57	92.64
	9/2/2009		8.58	91.63
	11/10/2010		9.00	91.21
	3/31/2011		7.70	92.51
	6/28/2011		8.02	92.19
	3/7/2012		8.36	91.85
	6/12/2012		8.46	91.75
MW-3	1/12/2006	99.66	8.16	91.50
	11/3/2008		8.50	91.16
	2/25/2009		8.38	91.28
	4/28/2009		6.98	92.68
			Abandoned	
P-3	1/12/2006	100.44	32.03	68.41
	11/3/2008		20.89	79.55
	2/25/2009		20.44	80.00
	4/28/2009		19.22	81.22
			Abandoned	
MW-4	1/12/2006	100.41	23.48	76.93
	11/3/2008		23.43	76.98
	2/25/2009		22.85	77.56
	4/28/2009		21.11	79.3
	11/10/2010		23.34	77.07
	3/31/2011		21.35	79.06
	6/28/2011		22.40	78.01
	3/7/2012		22.95	77.46
	6/12/2012		22.39	78.02

TABLE 1
 KLINKE CLEANERS
 FOX RUN SHOPPING CENTER
 WAUKESHA, WISCONSIN
 GROUNDWATER ELEVATIONS

Well Location	Date	Top of Casing Elevation (feet)	Depth to Water from TOC (feet)	Water Table Elevation (feet)
MW-5	1/12/2006	99.78	9.20	90.58
	11/3/2008		9.48	90.30
	2/25/2009		9.63	90.15
	4/28/2009		8.24	91.54
	9/2/2009		8.93	90.85
	11/10/2010		9.48	90.30
	3/31/2011		9.39	90.39
	6/28/2011		9.16	90.62
	3/7/2012		10.7	89.08
6/12/2012	10.01	89.77		
P-5	3/31/2011	99.62	20.79	78.83
	6/28/2011		20.83	78.79
	3/7/2012		22.23	77.39
	6/12/2012		21.70	77.92
MW-6	1/12/2006	100.00	8.64	91.36
	11/3/2008		8.80	91.20
	2/25/2009		8.79	91.21
	4/28/2009		8.17	91.83
	9/2/2009		8.80	91.20
	11/10/2010		8.90	91.10
	3/31/2011		8.55	91.45
	6/28/2011		8.62	91.38
	3/7/2012		8.59	91.41
6/12/2012	8.83	91.17		
MW-7	11/3/2008	99.04	8.32	90.72
	2/25/2009		8.47	90.57
	4/28/2009		7.15	91.89
	9/2/2009		8.09	90.95
	11/10/2010		8.44	90.6
	3/31/2011		8.32	90.72
	6/28/2011		8.16	90.88
	3/7/2012		8.12	90.92
6/12/2012	9.46	89.58		
MW-8	11/3/2008	99.83	8.05	91.78
	2/25/2009		8.00	91.83
	4/28/2009		6.61	93.22
	9/2/2009		8.08	91.75
	11/10/2010		8.16	91.67
	3/31/2011		7.67	92.16
	6/28/2011		7.82	92.01
	3/7/2012		7.84	91.99
6/12/2012	8.37	91.46		
MW-9	9/2/2009	99.51	10.00	89.51
	11/10/2010		11.13	88.38
	3/31/2011		10.69	88.82
	6/28/2011		10.48	89.03
	3/7/2012		10.96	88.55
6/12/2012	10.82	88.69		

TOC : Top of casing.

bgs: Below ground surface.

¹ Elevations in feet, referenced to a local datum (top of MW-6 PVC casing).

TABLE 2
GROUNDWATER ANALYTICAL SUMMARY
KLINKE CLEANERS - FOX RUN
WAUKESHA, WI
Concentrations in µg/L

Sample ID	Date	Volatile Organic Compounds (VOCs)					
		Chloroform	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	Trichloroethene
Wisconsin Administrative Code NR 140 Groundwater Standards							
NR 140 PAL		<u>0.6</u>	<u>7</u>	<u>0.5</u>	<u>160</u>	<u>40</u>	<u>0.5</u>
NR 140 ES		<u>6</u>	<u>70</u>	<u>5</u>	<u>800</u>	<u>200</u>	<u>5</u>
NR 141 Monitoring Wells							
MW-1	3/2/2005	<0.37	<0.83	<u>1.8</u>	0.78	<0.90	<0.48
	1/12/2006	<0.23	<0.18	<u>1.9</u>	0.23 J	0.26 J	<0.19
	11/3/2008	<1.3	<0.83	<u>0.94 J</u>	<0.67	<0.90	<0.48
	11/10/2010	<1.3	<0.83	<u>0.98 J</u>	<0.67	<0.90	<0.48
	3/31/2011	<1.3	<0.83	<u>1.2</u>	<0.67	<0.90	<0.48
	6/28/2011	<1.3	<0.83	<u>0.89 J</u>	<0.67	<0.90	<0.48
	3/7/2012	<1.3	<0.83	<u>1.1</u>	<0.67	<0.90	<0.48
	6/12/2012	<1.3	<0.83	<u>0.72 J</u>	<0.67	<0.90	<0.48
MW-2	3/2/2005	<0.37	2.8	<u>0.99</u>	<0.67	<0.90	<0.48
	1/12/2006	<0.23	<0.18	<u>0.70</u>	0.43 J	<0.21	<0.19
	11/3/2008	<1.3	<0.83	<u>0.51 J</u>	<0.67	<0.90	<0.48
	9/2/2009	<1.3	<0.83	<u>0.98 J</u>	<0.67	<0.90	<0.48
	11/10/2010	<1.3	<0.83	<u>0.70 J</u>	<0.67	<0.90	<0.48
	3/31/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	6/28/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	3/7/2012	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	6/12/2012	<1.3	<0.83	0.47 J	<0.67	<0.90	<0.48
MW-3	3/2/2005	<180*	<420*	<u>64,000*</u>	<340*	<450*	<480*
	1/12/2006	<2.3	2.2 J	<u>130.0</u>	<2.1	<2.1	<1.9
	11/3/2008	<1.3	12.7	<u>81.4</u>	<0.67	<0.90	<u>1.2</u>
Well Abandoned							
MW-3P	1/12/2006	<0.23	<0.18	<u>3.7</u>	<0.21	<0.21	<0.19
	11/3/2008	<1.3	<0.83	<u>4.8</u>	<0.67	<0.90	<0.48
Well Abandoned							
MW-4	3/2/2005	<0.37	<0.83	<u>1.3</u>	<0.67	<0.90	<0.48
	1/12/2006	<0.23	<0.18	<u>1.4</u>	0.25 J	<0.21	<0.19
	11/3/2008	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	11/10/2010	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	3/31/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	6/28/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	3/7/2012	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	6/12/2012	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
MW-5	3/2/2005	<0.37*	<0.83*	<u>28*</u>	<0.67*	<0.90*	<u>0.69*</u>
	1/12/2006	<1,200	<900	<u>57,000</u>	<1,000	<1,000	<930
	11/3/2008	<260	<166	<u>55,600</u>	<134	<180	<96.0
	9/2/2009	<325	<208	<u>24,100</u>	<168	<225	<120
	11/10/2010	<325	<208	<u>18,500</u>	<168	<225	<120
	3/31/2011	<130	<83.0	<u>11,100</u>	<67.0	<90.0	<48.0
	6/28/2011	<162	<104	<u>12,500</u>	<83.8	<112	<60.0
	3/7/2012	<162	<104	<u>13,200</u>	<83.8	<112	<60.0
	6/12/2012	<162	<104	<u>19,100</u>	<83.8	<112	<60.0

TABLE 2
GROUNDWATER ANALYTICAL SUMMARY
KLINKE CLEANERS - FOX RUN
WAUKESHA, WI
Concentrations in µg/L

Sample ID	Date	Volatile Organic Compounds (VOCs)					
		Chloroform	cis-1,2-Dichloroethene	Tetrachloroethene	Toluene	1,1,1-Trichloroethane	Trichloroethene
Wisconsin Administrative Code NR 140 Groundwater Standards							
NR 140 PAL		<u>0.6</u>	<u>7</u>	<u>0.5</u>	<u>160</u>	<u>40</u>	<u>0.5</u>
NR 140 ES		<u>6</u>	<u>70</u>	<u>5</u>	<u>800</u>	<u>200</u>	<u>5</u>
NR 141 Monitoring Wells							
P-5	3/31/2011	<1.3	<0.83	<u>0.56 J</u>	<0.67	<0.90	<0.48
	6/28/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	3/7/2012	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	6/12/2012	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
MW-6	3/2/2005	0.49	<0.83	<u>4.7</u>	<0.67	<0.90	<0.48
	1/12/2006	<u>1.5</u>	<0.18	<u>18</u>	0.22 J	<0.21	<u>0.55 J</u>
	11/3/2008	<1.3	<0.83	<u>18.8</u>	<0.67	<0.90	<0.48
	9/2/2009	<1.3	<0.83	<u>19.1</u>	<0.67	<0.90	<0.48
	11/10/2010	<1.3	<0.83	<u>26.9</u>	<0.67	<0.90	<u>0.55 J</u>
	3/31/2011	<1.3	<0.83	<u>28.2</u>	<0.67	<0.90	<0.48
	6/28/2011	<1.3	<0.83	<u>24.0</u>	<0.67	<0.90	<0.48
	3/7/2012	<1.3	<0.83	<u>27.6</u>	<0.67	<0.90	<0.48
	6/12/2012	<1.3	<0.83	<u>46.2</u>	<0.67	<0.90	<u>0.57 J</u>
MW-7	11/3/2008	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	9/2/2009	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	11/10/2010	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	3/31/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	6/28/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	3/7/2012	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
MW-8	11/3/2008	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	9/2/2009	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	11/10/2010	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	3/31/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	6/28/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	3/7/2012	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
MW-9	9/2/2009	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	11/10/2010	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	3/31/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	6/28/2011	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	3/7/2012	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48
	6/12/2012	<1.3	<0.83	<0.45	<0.67	<0.90	<0.48

Notes:

- 28 : Concentration exceeds NR 140 ES.
- 4.7 : Concentration exceeds NR 140 PAL.
- µg/L : Micrograms per liter.
- PAL : Preventive Action Limit.
- ES : Enforcement Standard.
- <0.20 : Analyte not detected above limit of detection shown.
- J : Laboratory flag - Analyte detected between limit of detection and limit of quantitation.
- Results qualified due to lack of certainty of results within this range.
- * : It appears likely that samples for MW-3 and MW-5 were mislabeled during the March 2, 2005 sampling event.

FIGURES



LEGEND



0 175 350 700

Approximate Scale: 1"=350'

Base Map: Google Earth, 2011



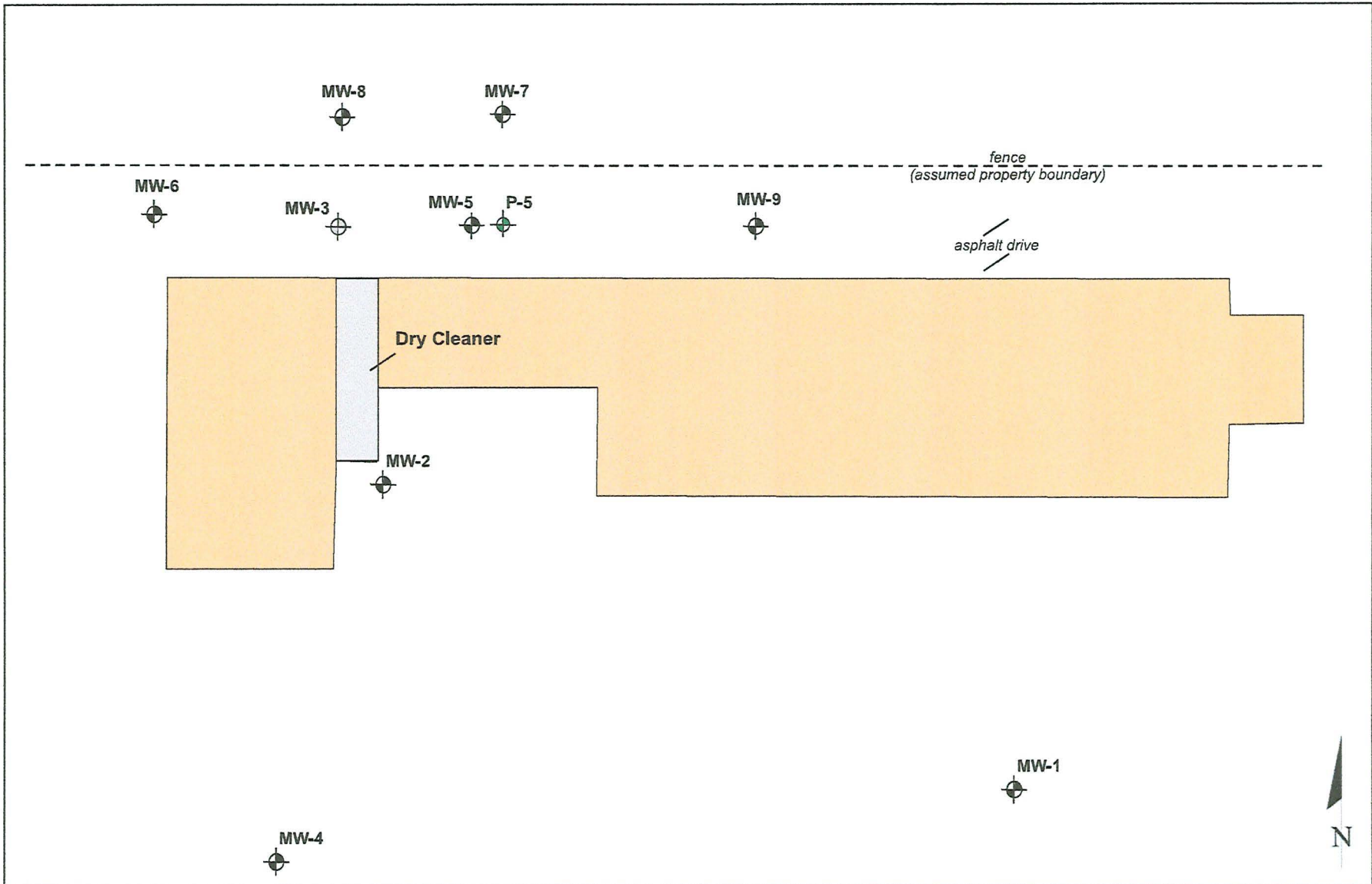
FIGURE 1

Site Location

Klinke Cleaners - Fox Run
2346 W. St. Paul Ave.
Waukesha, Wisconsin

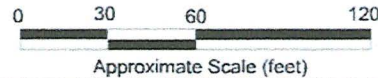
Project No. 05-529

July 2011



LEGEND

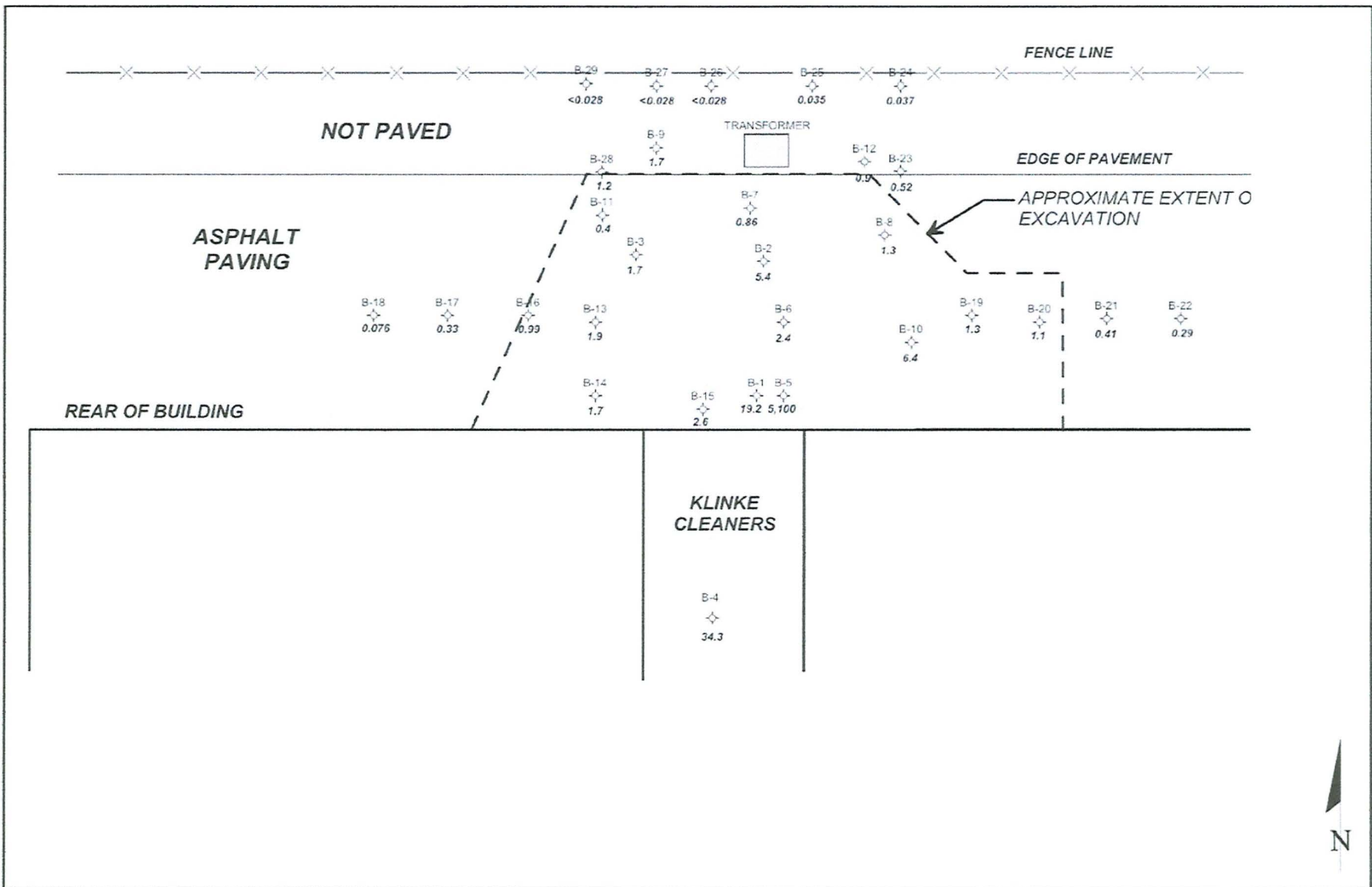
-  Structure
-  Monitoring well
-  New Monitoring Well
-  Monitoring well (abandoned)



Project No: 05-529
 Date: July 2011
 Adapted By: GHT

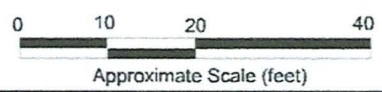
FIGURE 2
Monitoring Well Locations

Klinke Cleaners - Fox Run
 2346 W. St. Paul Ave.
 Waukesha, Wisconsin



LEGEND

Boring Location With PCE
 1.7 Concentration in mg/kg



Project No: 05-529
 Date: July 2011
 Adapted By: GHT

FIGURE 3
Soil Analytical Summary - May 2008
 Klinke Cleaners - Fox Run
 2346 W. St. Paul Ave.
 Waukesha, Wisconsin

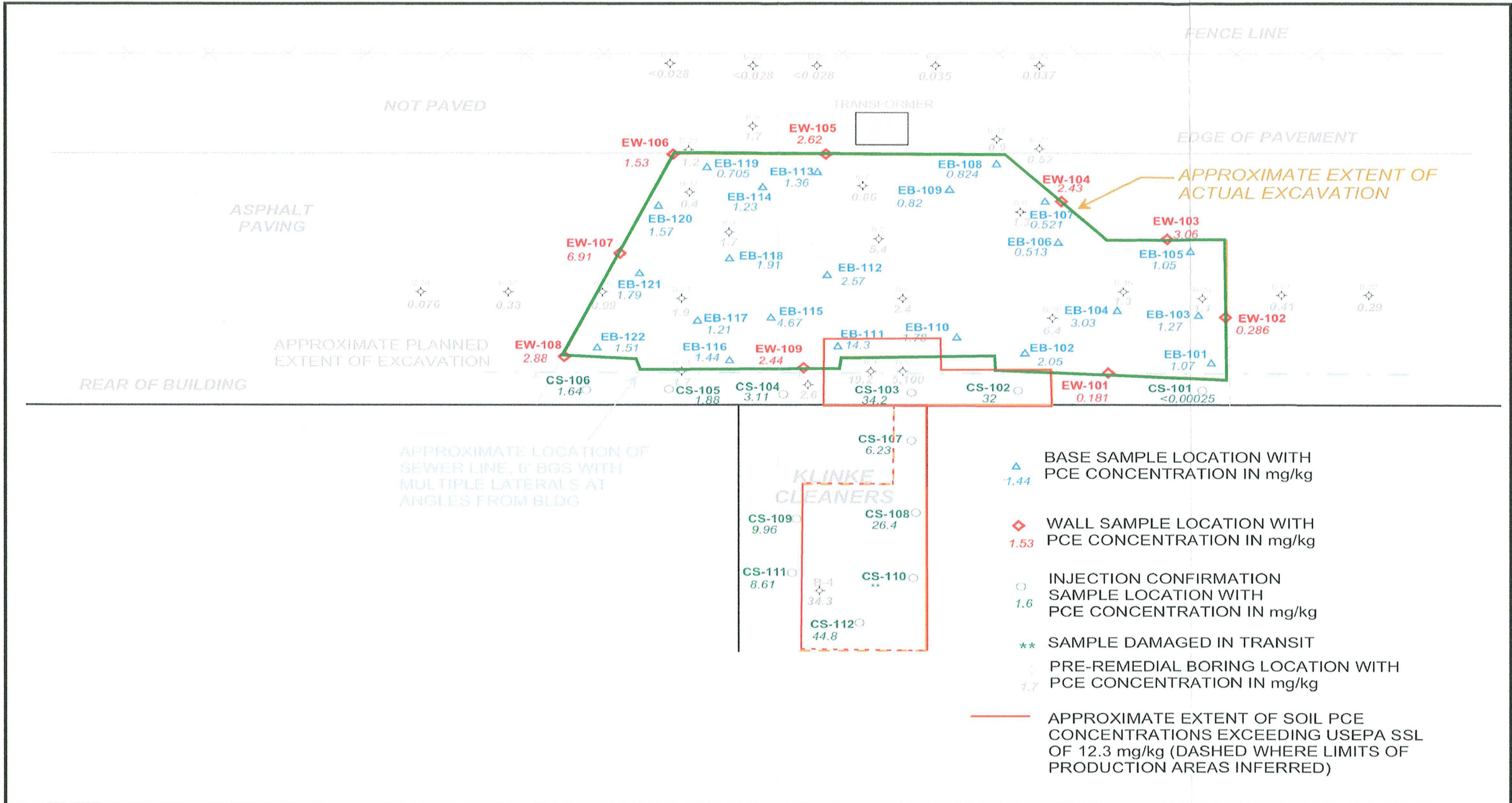
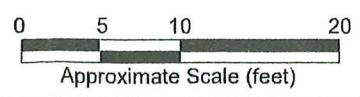


FIGURE 4
Soil Analytical Summary -
September 2009



Project No: 05-529
 Date: July 2011
 Adapted By: GHT

Klinke Cleaners - Fox Run
 2346 W. St. Paul Ave.
 Waukesha, Wisconsin



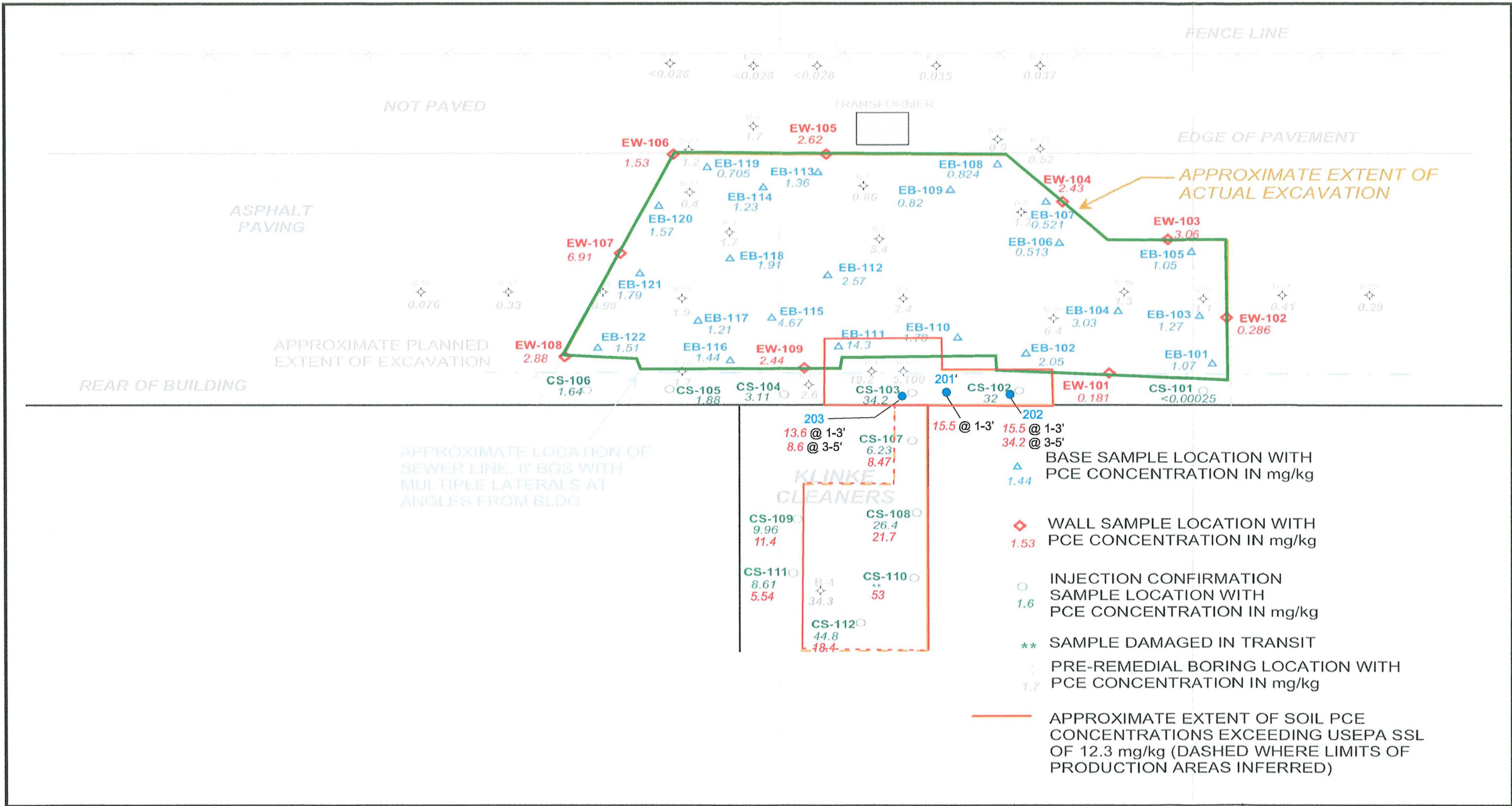
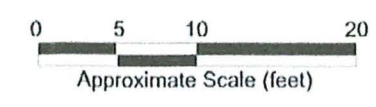


FIGURE 5
Soil Analytical Summary -
December 2010



Project No: 05-529
 Date: July 2011
 Adapted By: GHT

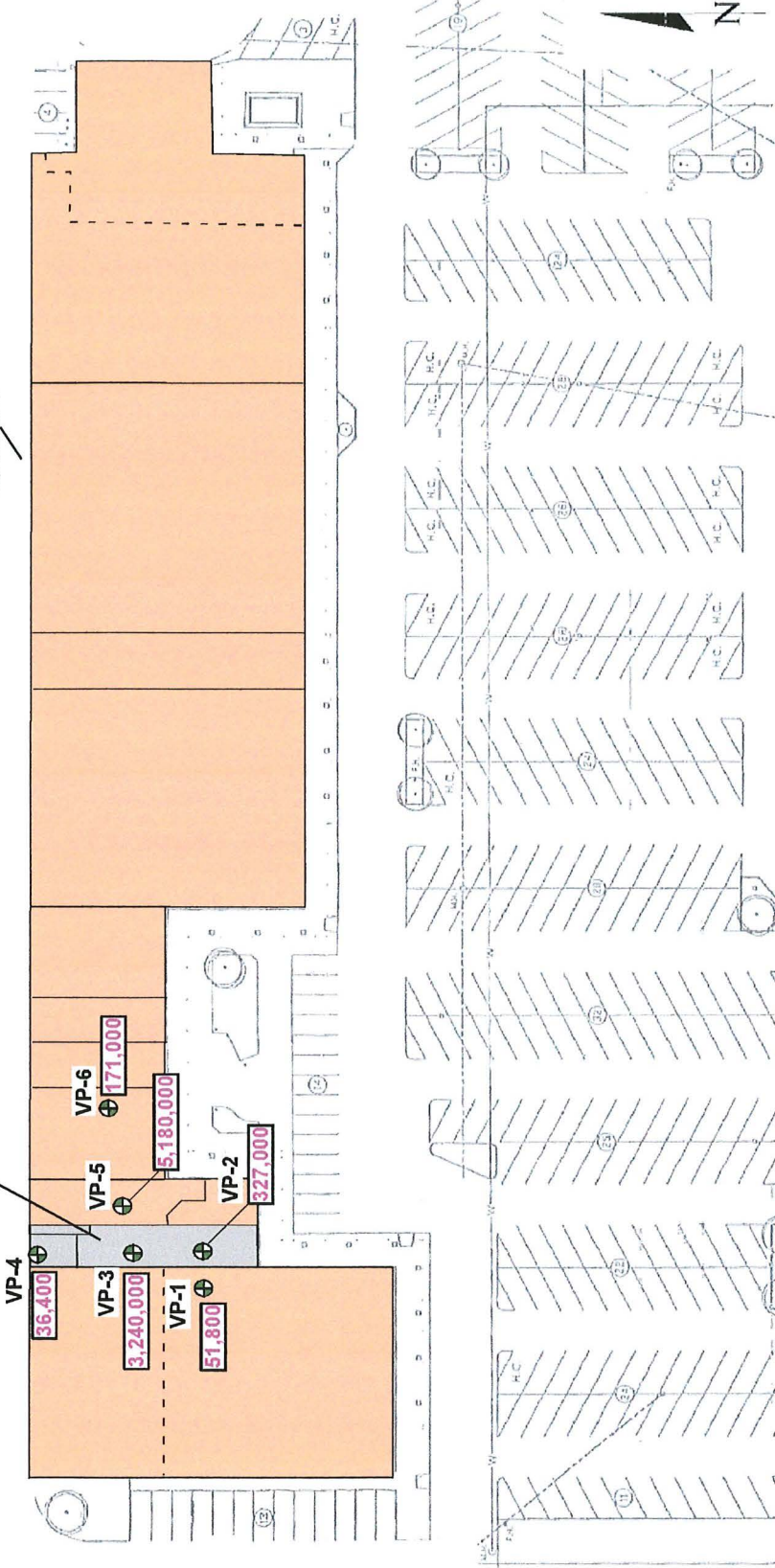
Klinke Cleaners - Fox Run
 2346 W. St. Paul Ave.
 Waukesha, Wisconsin



fence
(assumed property boundary)

asphalt drive

Dry Cleaner



LEGEND

Structure

⊕ Soil Gas Sample Location

Vapor Point Results

24.0 PCE in soil gas (ug/m3)



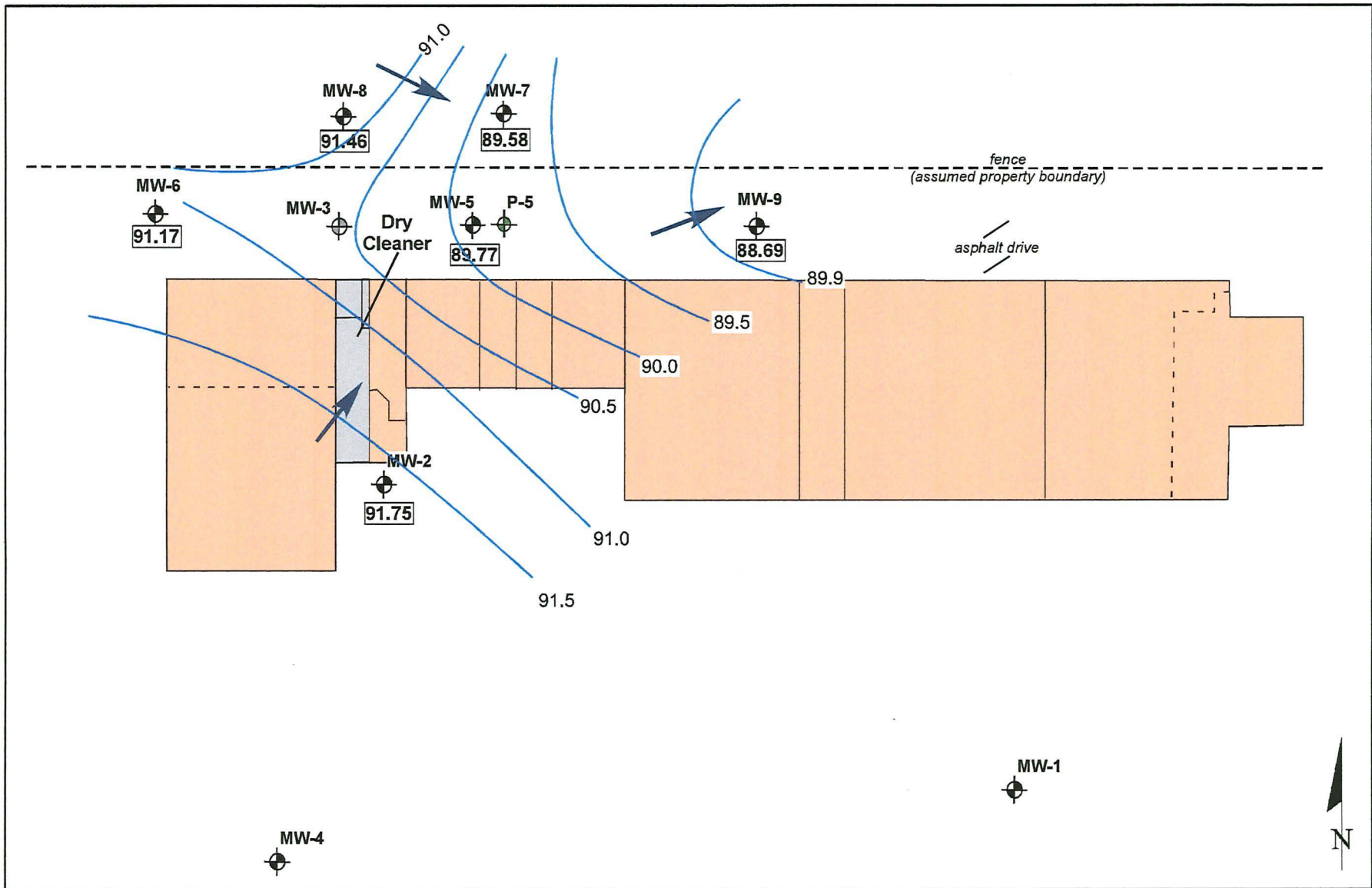
FIGURE 6

Soil Gas Locations and Results





Klinke Cleaners - Fox Run
2346 W. St. Paul Ave.
Waukesha, Wisconsin


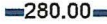



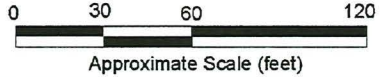
Project No: 05-529
Date: January 2012
Adapted By: GHT



LEGEND

-  Structure
-  Monitoring well
-  New Monitoring Well
-  Monitoring well (abandoned)

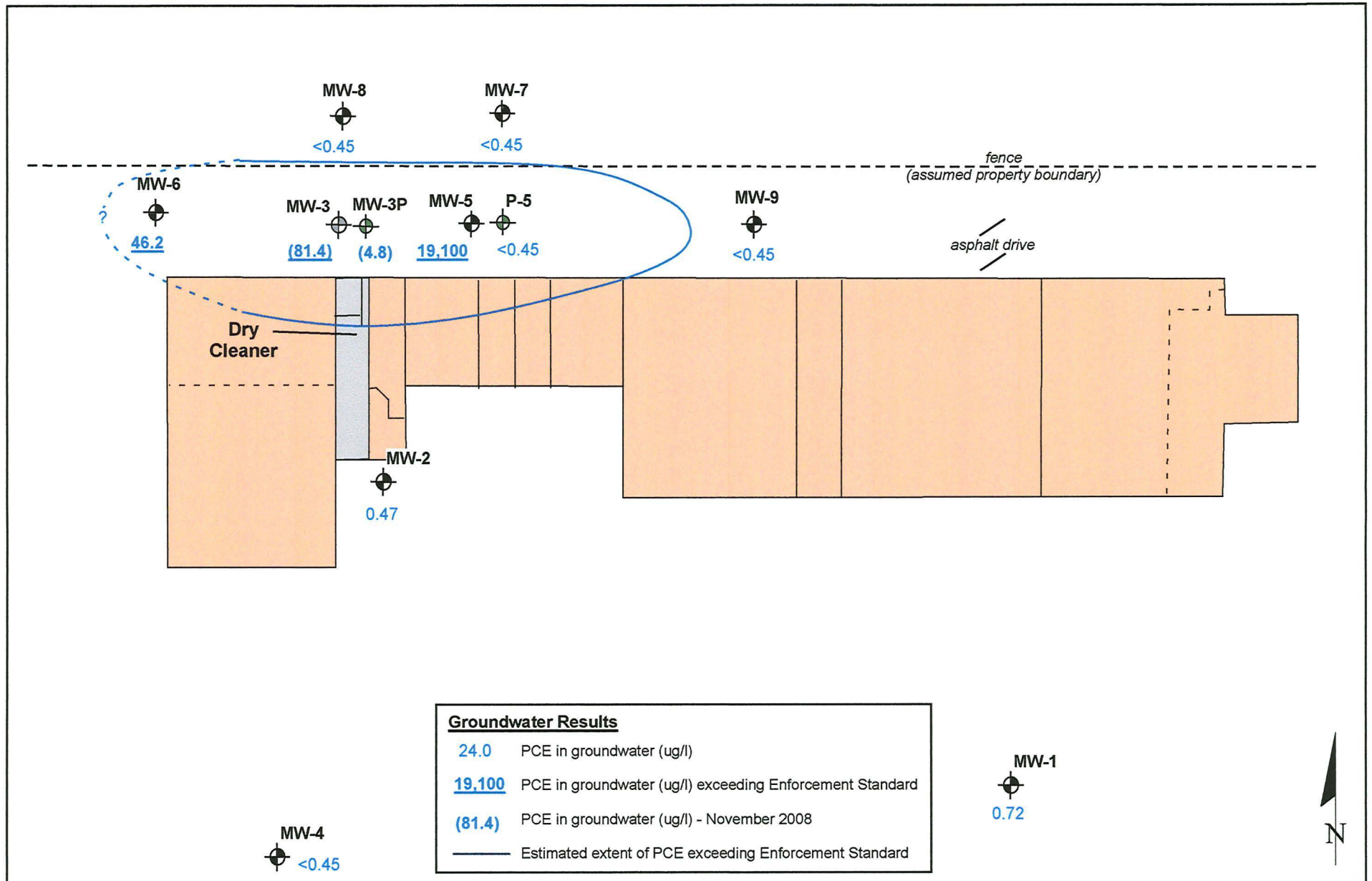
-  278.26 Groundwater Elevation (msl)
-  280.00 Approximate Groundwater Elevation Contour
-  Approximate Groundwater Flow Direction



Project No: 05-529
 Date: February 2013
 Adapted By: GHT

FIGURE 7
Water Table Elevation
Contours - June 2012

Klinke Cleaners - Fox Run
 2346 W. St. Paul Ave.
 Waukesha, Wisconsin



LEGEND

- Structure
- Monitoring well
- New Monitoring Well
- Monitoring well (abandoned)



Project No: 05-529
Date: February 2013
Adapted By: GHT

FIGURE 8
Approximate Extent
of Groundwater Impacts
- June 2012

Klinke Cleaners - Fox Run
2346 W. St. Paul Ave.
Waukesha, Wisconsin

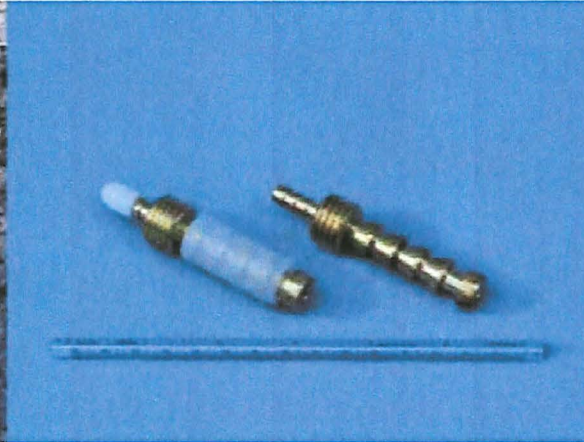
APPENDIX A

Cox-Colvin Vapor Pin™ Photographs

Cox-Colvin Vapor Pin™



1. Vapor Pin installed through floor slab



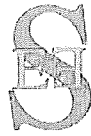
2. Vapor Pins with and without silicone sleeve and protective cover



3. Sampling set-up with Summa canister

APPENDIX B

Saga Sub-Slab Vapor Sampling SOP ENV-400



**SUB-SLAB SOIL GAS SAMPLING
STANDARD OPERATING PROCEDURE**

SOP ENV-400

Updated June 2011

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1. INTRODUCTION

This Standard Operating Procedure (SOP) presents the methods and procedures for sub-slab vapor sample collection from both temporary and permanently-installed soil vapor probes. Because each site is unique, these procedures should be viewed as guidelines and will require modification based on site and subsurface conditions present.

Personnel performing the soil gas monitoring and sampling will follow site safety procedures as specified in the site-specific Health and Safety Plan. In addition, field personnel should discuss specific project objectives and requirements with the SE&E project manager prior to conducting field operations.



2. EQUIPMENT AND MATERIALS

Various equipment and materials may be utilized for the sampling of soil gas probes. The following is a general list of equipment and materials that may be utilized will require modification to meet project specific requirements.

1. Tubing: 1/8-inch or 1/4-inch outer diameter (OD) inert, impermeable tubing such as nylon (Nylaflow®), Teflon® tubing, or stainless steel.
2. Sample Containers: Stainless steel Summa canister (laboratory certified), syringe, or tedlar bag.
3. Monitoring and sampling equipment may include the following: Laboratory certified flow controllers (if flow controllers are used, ensure flow controllers are dedicated to the canister/sample location), stainless steel T-fitting, stainless-steel particulate filter, photoionization detector (PID), low flow vacuum pump, vacuum gauge, portable weather station, and/or barometric pressure data loggers, and helium detector.
4. Leak check equipment using helium or other pre-approved non-reactive tracer gas may include: helium tank, piping, and valve, leak check enclosure (shroud), helium detector, paper towels or rags, and nitrile gloves. Tracer gas should be laboratory grade and the grade noted on the sample form (i.e. 100% pure helium by volume etc.).

3. COLLECTION PROTOCOL

Sub-slab sampling is completed at shallow depths, typically two to six-inches below the bottom-depth of a concrete slab, and as such, minimum purge volumes and low volume samples are preferred to minimize potential breakthrough from the surface. Regardless of sample depth, a 30 minute flow controller (minimum) should be used in conjunction with a tracer (i.e. helium) and if available, a field helium detector, to monitor for potential breakthrough. In circumstances where sub-slab and deeper subsurface soil gas samples are to be collected, they should be collected from separate borings to maintain a proper surface seal. Although constructing nested sampling points is possible, breakthrough can be problematic, and as such, use of such installations should be critically evaluated by the project manager. In the circumstance where nested installations are planned, shallow samples should be collected prior to deeper samples to ensure adequate surface seal. Various sampling methods are available, while syringe and Summa Canister sampling methods are described below.



3.1 Syringe Grab Samples

Connect the syringe to the probe tubing using a T-valve. If the syringe is connected directly to the probe implant, no purging is required. If a connecting tube is used between the syringe and the implant, purge one to two dead-volumes of the connecting tubing (approximately one cubic centimeter per foot (cc/ft) for 1/8-inch outer diameter (OD) tubing and five cc/ft for 1/4-inch OD tubing). Leave the syringe connected to the implant tubing. Sample by extracting soil gas via the syringe plunger.

3.2 Summa Canisters

Inspect the laboratory-provided Summa canister for damage prior to use. Do not use a canister that has visible damage.

Ensure the Summa canister valve is in the closed position. Using a wrench, remove the brass cap above the valve on the top of the Summa canister. Measure and record the initial vacuum of Summa canister. If using an external vacuum gauge, cap the gauge and attach it to the canister using a wrench. Open the canister valve only after verifying the gauge is properly capped.

Verify that the vacuum pressure of the canister is equal to that indicated on the laboratory supplied tag. If the vacuum does not match, the canister has likely leaked and should not be used. Record the vacuum pressure on the sample collection form.

The canister will then be fitted with the laboratory-provided steel filter. The sampling train, including steel filter and flow-controller (if used) and Summa canister, will be attached to a T-connector with an in-line vacuum gauge and vacuum tight flow valves at each end. All valves should be closed when connecting the sampling train. The valve connected to the sampling train is referred to as the sampling valve. The vacuum pump (truck-mounted or otherwise) is then attached to the second end of the T with the valve closed (referred to as the purge valve).

Lastly, the sample tubing is threaded through the leak-check shroud and connected to the sub-slab sampling point and the third closed valve on the T-connector. The leak-check shroud should then be sealed against the slab surface (see "Leak Check – Probe Point Surface Seal" below).



3.2.1 *Sample Train Apparatus Leak Checking*

The method described below shall be used to check for leaks in the lines and fittings of the above ground sampling apparatus:

1. After the sampling system is set up, double check all valves are closed.
2. Open the purge valve (the valve connecting the purge pump to the apparatus, all other valves remain closed), turn on the purge pump, and apply approximately ten inches of vacuum into the T-connector and valves.
3. Close the purge valve and check to verify that there is no loss of vacuum within the sampling apparatus (T-connector and valves) over a one minute period of time. If there is a loss of vacuum, this indicates a leak in the purge/sample system train that must be remedied.
4. If necessary, recheck the system to verify that there is no leakage as described above.
5. Document the date and time the leak check(s) were performed on the sampling form.
6. Ensure all valves remain closed.

3.3 Sample Probe Point Surface Seal and Leak Checking

In addition checking for leaks in the sample train apparatus, the probe point surface seal for each of the sampling methodologies mentioned above (syringe or Summa canister) needs to be checked for leakage. The preferred method uses helium gas as a tracer. As an added option, use of a field helium detector may be utilized that allows for checking and correcting potential leaks in the field prior to sampling, versus following sample analysis including tracer in the sample matrix. Other tracer gases may be used but approval of their use by the project manager should be verified prior to the start of the work. The helium tracer gas method is described by the Interstate and Regulatory Council (ITRC 2007) that is consistent with California Environmental Protection Agency (EPA)



and Oregon Department of Environmental Quality (DEQ) guidance (CalEPA, 2005, 2010; DEQ 2010) and is summarized below.

1. Insert sample tubing through the leak check enclosure (also referred to as a shroud) and complete sample tubing connections to the other apparatus (previously described above).
2. Place the enclosure shroud flush with the ground surface, placing hydrated bentonite around the shroud to seal the shroud around the sample point.
3. Attach helium tubing from the helium tank regulator to the enclosure (the "helium in" tubing).
4. Attach the exhaust tubing ("helium out") to the enclosure and locate the discharge end of the tubing as far as possible from the helium detector (if used).
5. Attach the helium detector (if used) on the exhaust line from the sample pump.
6. Make sure the sample valve (from the sampling probe point) is closed.
7. Open the helium tank valve and set the flow at 200 milliliter per minute (ml/min) or less; let it flow for about one minute to fill the leak check enclosure.
8. Do an initial check to make sure the helium detector is not detecting any helium (if used).
9. Begin purging of soil gas as described in the section on purging below.
10. If used during purging, continue monitoring helium detector, record readings. If helium is detected at over 5%, this indicates leakage; check/tighten all seals and fittings and repeat procedure. The helium exhaust line should also be monitored so that additional helium can be added to the shroud during sampling if needed.
11. Close valves from the probe sampling point and purge pump lines, and turn pump off.
12. If used, if the helium detector reading is less than 5%, the system is considered leak free and sampling can be performed (see sampling section below).
13. If used, if the helium detector reading continues to be above 5%, leakage is indicated and the sub-slab abandoned.
14. Record helium monitoring measurements in field notes, if appropriate.



3.4 Soil Gas Purging Procedures

Purging and sampling will be accomplished at a low flow rate (100 to 200 ml/min) to minimize the potential for inducing leakage. Flow rates should not exceed 200 ml/min.

Slowly open the vacuum pump purge valve and purge three volumes of vapor from the dead space (volume of tubing and sand pack combined), then close the purge valve. Tubing volume can be estimated at 44 milliliters per foot (mm/ft) of 0.25-inch inner diameter (ID) tubing. For the sand pack volume calculation it is important to note that 1 cubic inch is equivalent to 16.4 milliliters. The sand pack volume can be calculated as shown:

$$\text{Sand pack volume} = (\Phi * \pi * r_1^2 * L_1) - (\pi * r_2^2 * L_2)$$

Where Φ = sand pack porosity, typically estimated at 30%

r_1 = radius of sand pack

L_1 = length of sand pack

r_2 = outer radius of tubing (half of outer diameter)

L_2 = length of tubing within the sand pack

Care will be taken not to purge an excessive volume, or at an excessive rate, so as to minimize the chances of inducing leakage from the surface. The pump will also be monitored for signs that it is laboring, a possible indication of a clogged probe or tubing.

During purging, check for leaks as described in the section on leak checks above if a leak detector is utilized. Record PID measurements of purge vapors on the field form if a leak detector is utilized. At the conclusion of purging, immediately close the purge valve and then shut off the purge pump or purge Summa canister.



3.5 Soil Gas Sample Collection Procedures - Grab Sampling

After leak testing and soil gas purging, soil gas sampling may be performed. While atmospheric conditions should be documented, the level of detail gathering such parameters will be based on the individual project needs at the discretion of the project manager. For example, for small sites, atmospheric conditions such as barometric pressure, temperature, and wind information (if available) may be obtained through the National Weather Service (NWS) or local resources, whereas larger sites may require more site-specific data through use of an on-site weather station.

After purging, the purge valve will be closed prior to opening the sampling valve. The sample valve will then be opened followed by slowly opening the Summa canister valve. The canister's valve should be closed when the vacuum gauge shows a vacuum of 5 inches of mercury (in Hg) (pressure of -5 in Hg). The sample valve should then be closed.

Ensure the canister valve is tightly closed. The sample train should be immediately disassembled by removing the steel particulate filter, and the Summa canister. Immediately cap the Summa canister fitting. The final vacuum reading from the canister should be recorded on the chain of custody, sample collection form, and canister identification tag. If the final canister vacuum is less than 0.1 in Hg (more than -0.1 in Hg of pressure, or is a positive pressure), then the sample should be disregarded and a new sample collected.

Soil vapor samples will be shipped to a qualified laboratory for analysis.

3.6 Sampling Procedures – Time-Incremented Flow Controller

The sampling procedure is the same as above except that a laboratory certified in-line flow controller for a pre-specified sampling time (i.e. 30 minutes) will be used in the sampling train. The flow controller fits between the laboratory provided steel particulate filter and the Summa canister. The entire sample train (laboratory-provided steel particulate filter, flow-controller, and summa canister) should be pre-assembled prior to connecting to the sampling valve.



3.7 Other Collection Notes

For Summa canisters greater than one liter, sample flow rates are not to exceed 200 milliliters per minute (ml/min) to minimize potential for vacuum extraction of contaminants from the soil phase. If large volume canisters are used (three or more liters) without a flow controller to ensure the flow rate remains below 200 ml/min, a purge volume test may be required to ensure sample dilution from other zones is not occurring.

4. FIELD RECORDS

The field technician should maintain records summarizing the following:

1. Sample Location.
2. Sample Identification.
3. Date and time of sample collection.
4. Sampling depth.
5. Tubing type, length, and volume.
6. Purge data (i.e. pump used, volume, PID screening information (if any), purge start and stop time, purge vacuum reading).
7. Weather conditions.
8. Sampling methods and devices.
9. Volume of sampling device.
10. Sampling start and end date/time.
11. Vacuum of canisters before and after samples collected.
12. Apparent moisture content (dry, moist, or saturated, etc.) of the sampling zone.
13. Chain of custody protocols and records used to track samples from sampling point to analysis.
14. Other notes as applicable to site-specific observations, sampling issues and mitigation of problems encountered.



5. REFERENCES

Cal EPA (2005) *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*. Department of Toxic Substances Control, Interim Final. California Environmental Protection Agency. February 7, 2005.

Cal EPA (2010). *Advisory – Active Soil Gas Investigation (Draft)*. California Environmental Protection Agency. March 2010.

DEQ (2010). *Guidance for Assessing and Remediating Vapor Intrusion in Buildings*. Oregon Department of Environmental Quality. March 25, 2010

ITRC (2007). *Technical and Regulatory Guidance, Vapor Intrusion Pathway: A Practical Guideline*, Interstate Technology & Regulatory Council. January 2007.

APPENDIX C

Laboratory Analytical Reports



Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

March 12, 2012

Paula Richardson
Saga Environmental and Engineering, Inc.
146 E. Milwaukee St.
Jefferson, WI 53549

RE: Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Dear Paula Richardson:

Enclosed are the analytical results for sample(s) received by the laboratory on March 08, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Alee Her

alee.her@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
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CERTIFICATIONS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302.
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888

North Carolina Certification #: 503
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4057535001	MW-1	Water	03/07/12 09:00	03/08/12 14:15
4057535002	MW-2	Water	03/07/12 13:15	03/08/12 14:15
4057535003	MW-4	Water	03/07/12 09:45	03/08/12 14:15
4057535004	MW-5	Water	03/07/12 15:00	03/08/12 14:15
4057535005	P-5	Water	03/07/12 14:30	03/08/12 14:15
4057535006	MW-6	Water	03/07/12 14:00	03/08/12 14:15
4057535007	MW-7	Water	03/07/12 11:30	03/08/12 14:15
4057535008	MW-8	Water	03/07/12 12:30	03/08/12 14:15
4057535009	MW-9	Water	03/07/12 10:30	03/08/12 14:15
4057535010	TRIP BLANK	Water	03/07/12 00:00	03/08/12 14:15
4057535011	QC-1	Water	03/07/12 00:00	03/08/12 14:15

REPORT OF LABORATORY ANALYSIS

SAMPLE ANALYTE COUNT

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4057535001	MW-1	EPA 8260	SMT	64	PASI-G
4057535002	MW-2	EPA 8260	SMT	64	PASI-G
4057535003	MW-4	EPA 8260	SMT	64	PASI-G
4057535004	MW-5	EPA 8260	SMT	64	PASI-G
4057535005	P-5	EPA 8260	SMT	64	PASI-G
4057535006	MW-6	EPA 8260	SMT	64	PASI-G
4057535007	MW-7	EPA 8260	SMT	64	PASI-G
4057535008	MW-8	EPA 8260	SMT	64	PASI-G
4057535009	MW-9	EPA 8260	SMT	64	PASI-G
4057535010	TRIP BLANK	EPA 8260	SMT	64	PASI-G
4057535011	QC-1	EPA 8260	SMT	64	PASI-G

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN

Pace Project No.: 4057535

Sample: MW-1 Lab ID: 4057535001 Collected: 03/07/12 09:00 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.41	ug/L	1.0	0.41	1		03/09/12 11:37	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		03/09/12 11:37	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		03/09/12 11:37	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		03/09/12 11:37	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		03/09/12 11:37	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		03/09/12 11:37	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		03/09/12 11:37	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		03/09/12 11:37	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 11:37	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		03/09/12 11:37	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		03/09/12 11:37	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		03/09/12 11:37	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/09/12 11:37	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		03/09/12 11:37	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		03/09/12 11:37	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		03/09/12 11:37	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		03/09/12 11:37	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		03/09/12 11:37	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		03/09/12 11:37	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		03/09/12 11:37	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 11:37	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		03/09/12 11:37	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		03/09/12 11:37	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		03/09/12 11:37	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		03/09/12 11:37	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		03/09/12 11:37	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		03/09/12 11:37	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		03/09/12 11:37	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		03/09/12 11:37	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		03/09/12 11:37	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		03/09/12 11:37	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		03/09/12 11:37	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		03/09/12 11:37	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		03/09/12 11:37	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		03/09/12 11:37	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		03/09/12 11:37	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		03/09/12 11:37	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		03/09/12 11:37	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		03/09/12 11:37	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		03/09/12 11:37	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		03/09/12 11:37	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		03/09/12 11:37	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		03/09/12 11:37	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		03/09/12 11:37	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		03/09/12 11:37	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		03/09/12 11:37	630-20-6	

Date: 03/12/2012 04:33 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-1 Lab ID: 4057535001 Collected: 03/07/12 09:00 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		03/09/12 11:37	79-34-5	
Tetrachloroethene	1.1	ug/L	1.0	0.45	1		03/09/12 11:37	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		03/09/12 11:37	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		03/09/12 11:37	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		03/09/12 11:37	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		03/09/12 11:37	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		03/09/12 11:37	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		03/09/12 11:37	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		03/09/12 11:37	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		03/09/12 11:37	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 11:37	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 11:37	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/09/12 11:37	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		03/09/12 11:37	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		03/09/12 11:37	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	78 %		70-130		1		03/09/12 11:37	460-00-4	
Dibromofluoromethane (S)	89 %		70-130		1		03/09/12 11:37	1868-53-7	
Toluene-d8 (S)	87 %		70-130		1		03/09/12 11:37	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-2 Lab ID: 4057535002 Collected: 03/07/12 13:15 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.41	ug/L	1.0	0.41	1		03/09/12 10:29	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		03/09/12 10:29	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		03/09/12 10:29	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		03/09/12 10:29	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		03/09/12 10:29	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		03/09/12 10:29	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		03/09/12 10:29	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		03/09/12 10:29	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 10:29	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		03/09/12 10:29	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		03/09/12 10:29	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		03/09/12 10:29	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/09/12 10:29	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		03/09/12 10:29	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		03/09/12 10:29	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		03/09/12 10:29	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		03/09/12 10:29	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		03/09/12 10:29	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		03/09/12 10:29	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		03/09/12 10:29	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 10:29	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		03/09/12 10:29	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		03/09/12 10:29	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		03/09/12 10:29	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		03/09/12 10:29	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		03/09/12 10:29	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		03/09/12 10:29	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		03/09/12 10:29	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		03/09/12 10:29	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		03/09/12 10:29	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		03/09/12 10:29	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		03/09/12 10:29	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		03/09/12 10:29	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		03/09/12 10:29	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		03/09/12 10:29	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		03/09/12 10:29	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		03/09/12 10:29	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		03/09/12 10:29	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		03/09/12 10:29	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		03/09/12 10:29	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		03/09/12 10:29	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		03/09/12 10:29	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		03/09/12 10:29	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		03/09/12 10:29	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		03/09/12 10:29	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		03/09/12 10:29	630-20-6	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-2 Lab ID: 4057535002 Collected: 03/07/12 13:15 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		03/09/12 10:29	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		03/09/12 10:29	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		03/09/12 10:29	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		03/09/12 10:29	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		03/09/12 10:29	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		03/09/12 10:29	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		03/09/12 10:29	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		03/09/12 10:29	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		03/09/12 10:29	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		03/09/12 10:29	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 10:29	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 10:29	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/09/12 10:29	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		03/09/12 10:29	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		03/09/12 10:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	77	%	70-130		1		03/09/12 10:29	460-00-4	
Dibromofluoromethane (S)	91	%	70-130		1		03/09/12 10:29	1868-53-7	
Toluene-d8 (S)	86	%	70-130		1		03/09/12 10:29	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-4 Lab ID: 4057535003 Collected: 03/07/12 09:45 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.41	ug/L	1.0	0.41	1		03/09/12 12:00	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		03/09/12 12:00	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		03/09/12 12:00	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		03/09/12 12:00	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		03/09/12 12:00	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		03/09/12 12:00	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		03/09/12 12:00	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		03/09/12 12:00	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 12:00	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		03/09/12 12:00	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		03/09/12 12:00	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		03/09/12 12:00	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/09/12 12:00	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		03/09/12 12:00	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		03/09/12 12:00	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		03/09/12 12:00	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		03/09/12 12:00	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		03/09/12 12:00	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		03/09/12 12:00	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		03/09/12 12:00	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:00	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		03/09/12 12:00	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		03/09/12 12:00	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		03/09/12 12:00	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		03/09/12 12:00	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		03/09/12 12:00	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		03/09/12 12:00	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:00	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		03/09/12 12:00	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		03/09/12 12:00	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		03/09/12 12:00	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		03/09/12 12:00	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		03/09/12 12:00	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		03/09/12 12:00	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		03/09/12 12:00	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		03/09/12 12:00	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		03/09/12 12:00	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		03/09/12 12:00	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		03/09/12 12:00	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		03/09/12 12:00	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		03/09/12 12:00	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		03/09/12 12:00	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		03/09/12 12:00	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		03/09/12 12:00	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		03/09/12 12:00	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		03/09/12 12:00	630-20-6	

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-4 Lab ID: 4057535003 Collected: 03/07/12 09:45 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		03/09/12 12:00	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		03/09/12 12:00	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		03/09/12 12:00	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		03/09/12 12:00	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		03/09/12 12:00	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		03/09/12 12:00	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		03/09/12 12:00	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		03/09/12 12:00	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		03/09/12 12:00	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		03/09/12 12:00	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 12:00	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:00	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/09/12 12:00	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		03/09/12 12:00	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	76 %		70-130		1		03/09/12 12:00	460-00-4	
Dibromofluoromethane (S)	90 %		70-130		1		03/09/12 12:00	1868-53-7	
Toluene-d8 (S)	85 %		70-130		1		03/09/12 12:00	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-5 Lab ID: 4057535004 Collected: 03/07/12 15:00 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<51.2	ug/L	125	51.2	125		03/09/12 17:42	71-43-2	
Bromobenzene	<102	ug/L	125	102	125		03/09/12 17:42	108-86-1	
Bromochloromethane	<121	ug/L	125	121	125		03/09/12 17:42	74-97-5	
Bromodichloromethane	<70.0	ug/L	125	70.0	125		03/09/12 17:42	75-27-4	
Bromoform	<118	ug/L	125	118	125		03/09/12 17:42	75-25-2	
Bromomethane	<114	ug/L	125	114	125		03/09/12 17:42	74-83-9	
n-Butylbenzene	<116	ug/L	125	116	125		03/09/12 17:42	104-51-8	
sec-Butylbenzene	<111	ug/L	625	111	125		03/09/12 17:42	135-98-8	
tert-Butylbenzene	<121	ug/L	125	121	125		03/09/12 17:42	98-06-6	
Carbon tetrachloride	<61.2	ug/L	125	61.2	125		03/09/12 17:42	56-23-5	
Chlorobenzene	<51.2	ug/L	125	51.2	125		03/09/12 17:42	108-90-7	
Chloroethane	<121	ug/L	125	121	125		03/09/12 17:42	75-00-3	
Chloroform	<162	ug/L	625	162	125		03/09/12 17:42	67-66-3	
Chloromethane	<30.0	ug/L	125	30.0	125		03/09/12 17:42	74-87-3	
2-Chlorotoluene	<106	ug/L	125	106	125		03/09/12 17:42	95-49-8	
4-Chlorotoluene	<92.5	ug/L	125	92.5	125		03/09/12 17:42	106-43-4	
1,2-Dibromo-3-chloropropane	<210	ug/L	625	210	125		03/09/12 17:42	96-12-8	
Dibromochloromethane	<101	ug/L	125	101	125		03/09/12 17:42	124-48-1	
1,2-Dibromoethane (EDB)	<70.0	ug/L	125	70.0	125		03/09/12 17:42	106-93-4	
Dibromomethane	<75.0	ug/L	125	75.0	125		03/09/12 17:42	74-95-3	
1,2-Dichlorobenzene	<104	ug/L	125	104	125		03/09/12 17:42	95-50-1	
1,3-Dichlorobenzene	<109	ug/L	125	109	125		03/09/12 17:42	541-73-1	
1,4-Dichlorobenzene	<119	ug/L	125	119	125		03/09/12 17:42	106-46-7	
Dichlorodifluoromethane	<124	ug/L	125	124	125		03/09/12 17:42	75-71-8	
1,1-Dichloroethane	<93.8	ug/L	125	93.8	125		03/09/12 17:42	75-34-3	
1,2-Dichloroethane	<45.0	ug/L	125	45.0	125		03/09/12 17:42	107-06-2	
1,1-Dichloroethene	<71.2	ug/L	125	71.2	125		03/09/12 17:42	75-35-4	
cis-1,2-Dichloroethene	<104	ug/L	125	104	125		03/09/12 17:42	156-59-2	
trans-1,2-Dichloroethene	<111	ug/L	125	111	125		03/09/12 17:42	156-60-5	
1,2-Dichloropropane	<61.2	ug/L	125	61.2	125		03/09/12 17:42	78-87-5	
1,3-Dichloropropane	<76.2	ug/L	125	76.2	125		03/09/12 17:42	142-28-9	
2,2-Dichloropropane	<77.5	ug/L	125	77.5	125		03/09/12 17:42	594-20-7	
1,1-Dichloropropene	<93.8	ug/L	125	93.8	125		03/09/12 17:42	563-58-6	
cis-1,3-Dichloropropene	<25.0	ug/L	125	25.0	125		03/09/12 17:42	10061-01-5	
trans-1,3-Dichloropropene	<23.8	ug/L	125	23.8	125		03/09/12 17:42	10061-02-6	
Diisopropyl ether	<95.0	ug/L	125	95.0	125		03/09/12 17:42	108-20-3	
Ethylbenzene	<67.5	ug/L	125	67.5	125		03/09/12 17:42	100-41-4	
Hexachloro-1,3-butadiene	<83.8	ug/L	625	83.8	125		03/09/12 17:42	87-68-3	
Isopropylbenzene (Cumene)	<73.8	ug/L	125	73.8	125		03/09/12 17:42	98-82-8	
p-Isopropyltoluene	<83.8	ug/L	125	83.8	125		03/09/12 17:42	99-87-6	
Methylene Chloride	<53.8	ug/L	125	53.8	125		03/09/12 17:42	75-09-2	
Methyl-tert-butyl ether	<76.2	ug/L	125	76.2	125		03/09/12 17:42	1634-04-4	
Naphthalene	<111	ug/L	625	111	125		03/09/12 17:42	91-20-3	
n-Propylbenzene	<101	ug/L	125	101	125		03/09/12 17:42	103-65-1	
Styrene	<108	ug/L	125	108	125		03/09/12 17:42	100-42-5	
1,1,1,2-Tetrachloroethane	<115	ug/L	125	115	125		03/09/12 17:42	630-20-6	

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-5 Lab ID: 4057535004 Collected: 03/07/12 15:00 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<25.0	ug/L	125	25.0	125		03/09/12 17:42	79-34-5	
Tetrachloroethene	13200	ug/L	125	56.2	125		03/09/12 17:42	127-18-4	
Toluene	<83.8	ug/L	125	83.8	125		03/09/12 17:42	108-88-3	
1,2,3-Trichlorobenzene	<92.5	ug/L	125	92.5	125		03/09/12 17:42	87-61-6	
1,2,4-Trichlorobenzene	<121	ug/L	625	121	125		03/09/12 17:42	120-82-1	
1,1,1-Trichloroethane	<112	ug/L	125	112	125		03/09/12 17:42	71-55-6	
1,1,2-Trichloroethane	<52.5	ug/L	125	52.5	125		03/09/12 17:42	79-00-5	
Trichloroethene	<60.0	ug/L	125	60.0	125		03/09/12 17:42	79-01-6	
Trichlorofluoromethane	<98.8	ug/L	125	98.8	125		03/09/12 17:42	75-69-4	
1,2,3-Trichloropropane	<124	ug/L	125	124	125		03/09/12 17:42	96-18-4	
1,2,4-Trimethylbenzene	<121	ug/L	125	121	125		03/09/12 17:42	95-63-6	
1,3,5-Trimethylbenzene	<104	ug/L	125	104	125		03/09/12 17:42	108-67-8	
Vinyl chloride	<22.5	ug/L	125	22.5	125		03/09/12 17:42	75-01-4	
m&p-Xylene	<225	ug/L	250	225	125		03/09/12 17:42	179601-23-1	
o-Xylene	<104	ug/L	125	104	125		03/09/12 17:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	76 %		70-130		125		03/09/12 17:42	460-00-4	
Dibromofluoromethane (S)	95 %		70-130		125		03/09/12 17:42	1868-53-7	
Toluene-d8 (S)	86 %		70-130		125		03/09/12 17:42	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: P-5 Lab ID: 4057535005 Collected: 03/07/12 14:30 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.41	ug/L	1.0	0.41	1		03/09/12 12:23	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		03/09/12 12:23	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		03/09/12 12:23	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		03/09/12 12:23	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		03/09/12 12:23	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		03/09/12 12:23	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		03/09/12 12:23	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		03/09/12 12:23	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 12:23	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		03/09/12 12:23	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		03/09/12 12:23	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		03/09/12 12:23	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/09/12 12:23	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		03/09/12 12:23	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		03/09/12 12:23	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		03/09/12 12:23	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		03/09/12 12:23	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		03/09/12 12:23	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		03/09/12 12:23	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		03/09/12 12:23	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:23	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		03/09/12 12:23	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		03/09/12 12:23	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		03/09/12 12:23	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		03/09/12 12:23	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		03/09/12 12:23	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		03/09/12 12:23	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:23	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		03/09/12 12:23	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		03/09/12 12:23	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		03/09/12 12:23	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		03/09/12 12:23	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		03/09/12 12:23	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		03/09/12 12:23	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		03/09/12 12:23	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		03/09/12 12:23	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		03/09/12 12:23	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		03/09/12 12:23	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		03/09/12 12:23	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		03/09/12 12:23	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		03/09/12 12:23	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		03/09/12 12:23	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		03/09/12 12:23	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		03/09/12 12:23	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		03/09/12 12:23	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		03/09/12 12:23	630-20-6	

Date: 03/12/2012 04:33 PM

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: P-5 **Lab ID: 4057535005** Collected: 03/07/12 14:30 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		03/09/12 12:23	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		03/09/12 12:23	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		03/09/12 12:23	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		03/09/12 12:23	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		03/09/12 12:23	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		03/09/12 12:23	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		03/09/12 12:23	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		03/09/12 12:23	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		03/09/12 12:23	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		03/09/12 12:23	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 12:23	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:23	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/09/12 12:23	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		03/09/12 12:23	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:23	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	76 %		70-130		1		03/09/12 12:23	460-00-4	
Dibromofluoromethane (S)	94 %		70-130		1		03/09/12 12:23	1868-53-7	
Toluene-d8 (S)	83 %		70-130		1		03/09/12 12:23	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-6 Lab ID: 4057535006 Collected: 03/07/12 14:00 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.41	ug/L	1.0	0.41	1		03/09/12 15:25	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		03/09/12 15:25	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		03/09/12 15:25	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		03/09/12 15:25	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		03/09/12 15:25	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		03/09/12 15:25	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		03/09/12 15:25	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		03/09/12 15:25	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 15:25	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		03/09/12 15:25	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		03/09/12 15:25	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		03/09/12 15:25	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/09/12 15:25	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		03/09/12 15:25	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		03/09/12 15:25	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		03/09/12 15:25	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		03/09/12 15:25	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		03/09/12 15:25	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		03/09/12 15:25	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		03/09/12 15:25	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 15:25	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		03/09/12 15:25	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		03/09/12 15:25	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		03/09/12 15:25	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		03/09/12 15:25	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		03/09/12 15:25	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		03/09/12 15:25	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		03/09/12 15:25	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		03/09/12 15:25	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		03/09/12 15:25	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		03/09/12 15:25	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		03/09/12 15:25	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		03/09/12 15:25	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		03/09/12 15:25	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		03/09/12 15:25	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		03/09/12 15:25	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		03/09/12 15:25	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		03/09/12 15:25	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		03/09/12 15:25	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		03/09/12 15:25	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		03/09/12 15:25	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		03/09/12 15:25	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		03/09/12 15:25	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		03/09/12 15:25	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		03/09/12 15:25	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		03/09/12 15:25	630-20-6	

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-6 Lab ID: 4057535006 Collected: 03/07/12 14:00 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		03/09/12 15:25	79-34-5	
Tetrachloroethene	27.6	ug/L	1.0	0.45	1		03/09/12 15:25	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		03/09/12 15:25	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		03/09/12 15:25	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		03/09/12 15:25	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		03/09/12 15:25	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		03/09/12 15:25	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		03/09/12 15:25	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		03/09/12 15:25	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		03/09/12 15:25	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 15:25	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 15:25	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/09/12 15:25	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		03/09/12 15:25	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		03/09/12 15:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	76 %		70-130		1		03/09/12 15:25	460-00-4	
Dibromofluoromethane (S)	92 %		70-130		1		03/09/12 15:25	1868-53-7	
Toluene-d8 (S)	86 %		70-130		1		03/09/12 15:25	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-7 Lab ID: 4057535007 Collected: 03/07/12 11:30 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.41	ug/L	1.0	0.41	1		03/09/12 12:46	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		03/09/12 12:46	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		03/09/12 12:46	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		03/09/12 12:46	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		03/09/12 12:46	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		03/09/12 12:46	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		03/09/12 12:46	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		03/09/12 12:46	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 12:46	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		03/09/12 12:46	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		03/09/12 12:46	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		03/09/12 12:46	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/09/12 12:46	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		03/09/12 12:46	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		03/09/12 12:46	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		03/09/12 12:46	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		03/09/12 12:46	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		03/09/12 12:46	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		03/09/12 12:46	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		03/09/12 12:46	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:46	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		03/09/12 12:46	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		03/09/12 12:46	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		03/09/12 12:46	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		03/09/12 12:46	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		03/09/12 12:46	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		03/09/12 12:46	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:46	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		03/09/12 12:46	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		03/09/12 12:46	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		03/09/12 12:46	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		03/09/12 12:46	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		03/09/12 12:46	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		03/09/12 12:46	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		03/09/12 12:46	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		03/09/12 12:46	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		03/09/12 12:46	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		03/09/12 12:46	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		03/09/12 12:46	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		03/09/12 12:46	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		03/09/12 12:46	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		03/09/12 12:46	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		03/09/12 12:46	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		03/09/12 12:46	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		03/09/12 12:46	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		03/09/12 12:46	630-20-6	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-7 Lab ID: 4057535007 Collected: 03/07/12 11:30 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		03/09/12 12:46	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		03/09/12 12:46	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		03/09/12 12:46	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		03/09/12 12:46	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		03/09/12 12:46	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		03/09/12 12:46	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		03/09/12 12:46	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		03/09/12 12:46	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		03/09/12 12:46	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		03/09/12 12:46	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 12:46	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:46	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/09/12 12:46	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		03/09/12 12:46	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		03/09/12 12:46	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	77	%	70-130		1		03/09/12 12:46	460-00-4	
Dibromofluoromethane (S)	91	%	70-130		1		03/09/12 12:46	1868-53-7	
Toluene-d8 (S)	86	%	70-130		1		03/09/12 12:46	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-8 Lab ID: 4057535008 Collected: 03/07/12 12:30 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.41	ug/L	1.0	0.41	1		03/09/12 13:09	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		03/09/12 13:09	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		03/09/12 13:09	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		03/09/12 13:09	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		03/09/12 13:09	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		03/09/12 13:09	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		03/09/12 13:09	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		03/09/12 13:09	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 13:09	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		03/09/12 13:09	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		03/09/12 13:09	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		03/09/12 13:09	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/09/12 13:09	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		03/09/12 13:09	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		03/09/12 13:09	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		03/09/12 13:09	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		03/09/12 13:09	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		03/09/12 13:09	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		03/09/12 13:09	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		03/09/12 13:09	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:09	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		03/09/12 13:09	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		03/09/12 13:09	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		03/09/12 13:09	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		03/09/12 13:09	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		03/09/12 13:09	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		03/09/12 13:09	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:09	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		03/09/12 13:09	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		03/09/12 13:09	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		03/09/12 13:09	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		03/09/12 13:09	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		03/09/12 13:09	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		03/09/12 13:09	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		03/09/12 13:09	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		03/09/12 13:09	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		03/09/12 13:09	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		03/09/12 13:09	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		03/09/12 13:09	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		03/09/12 13:09	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		03/09/12 13:09	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		03/09/12 13:09	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		03/09/12 13:09	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		03/09/12 13:09	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		03/09/12 13:09	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		03/09/12 13:09	630-20-6	

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-8 Lab ID: 4057535008 Collected: 03/07/12 12:30 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		03/09/12 13:09	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		03/09/12 13:09	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		03/09/12 13:09	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		03/09/12 13:09	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		03/09/12 13:09	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		03/09/12 13:09	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		03/09/12 13:09	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		03/09/12 13:09	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		03/09/12 13:09	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		03/09/12 13:09	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 13:09	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:09	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/09/12 13:09	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		03/09/12 13:09	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	76 %		70-130		1		03/09/12 13:09	460-00-4	
Dibromofluoromethane (S)	91 %		70-130		1		03/09/12 13:09	1868-53-7	
Toluene-d8 (S)	86 %		70-130		1		03/09/12 13:09	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-9 Lab ID: 4057535009 Collected: 03/07/12 10:30 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.41	ug/L	1.0	0.41	1		03/09/12 13:31	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		03/09/12 13:31	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		03/09/12 13:31	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		03/09/12 13:31	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		03/09/12 13:31	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		03/09/12 13:31	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		03/09/12 13:31	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		03/09/12 13:31	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 13:31	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		03/09/12 13:31	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		03/09/12 13:31	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		03/09/12 13:31	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/09/12 13:31	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		03/09/12 13:31	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		03/09/12 13:31	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		03/09/12 13:31	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		03/09/12 13:31	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		03/09/12 13:31	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		03/09/12 13:31	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		03/09/12 13:31	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:31	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		03/09/12 13:31	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		03/09/12 13:31	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		03/09/12 13:31	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		03/09/12 13:31	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		03/09/12 13:31	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		03/09/12 13:31	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:31	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		03/09/12 13:31	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		03/09/12 13:31	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		03/09/12 13:31	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		03/09/12 13:31	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		03/09/12 13:31	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		03/09/12 13:31	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		03/09/12 13:31	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		03/09/12 13:31	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		03/09/12 13:31	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		03/09/12 13:31	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		03/09/12 13:31	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		03/09/12 13:31	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		03/09/12 13:31	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		03/09/12 13:31	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		03/09/12 13:31	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		03/09/12 13:31	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		03/09/12 13:31	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		03/09/12 13:31	630-20-6	

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: MW-9 Lab ID: 4057535009 Collected: 03/07/12 10:30 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		03/09/12 13:31	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		03/09/12 13:31	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		03/09/12 13:31	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		03/09/12 13:31	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		03/09/12 13:31	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		03/09/12 13:31	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		03/09/12 13:31	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		03/09/12 13:31	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		03/09/12 13:31	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		03/09/12 13:31	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 13:31	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:31	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/09/12 13:31	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		03/09/12 13:31	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:31	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	76	%.	70-130		1		03/09/12 13:31	460-00-4	
Dibromofluoromethane (S)	91	%.	70-130		1		03/09/12 13:31	1868-53-7	
Toluene-d8 (S)	87	%.	70-130		1		03/09/12 13:31	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: TRIP BLANK Lab ID: 4057535010 Collected: 03/07/12 00:00 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.41 ug/L		1.0	0.41	1		03/09/12 10:52	71-43-2	
Bromobenzene	<0.82 ug/L		1.0	0.82	1		03/09/12 10:52	108-86-1	
Bromochloromethane	<0.97 ug/L		1.0	0.97	1		03/09/12 10:52	74-97-5	
Bromodichloromethane	<0.56 ug/L		1.0	0.56	1		03/09/12 10:52	75-27-4	
Bromoform	<0.94 ug/L		1.0	0.94	1		03/09/12 10:52	75-25-2	
Bromomethane	<0.91 ug/L		1.0	0.91	1		03/09/12 10:52	74-83-9	
n-Butylbenzene	<0.93 ug/L		1.0	0.93	1		03/09/12 10:52	104-51-8	
sec-Butylbenzene	<0.89 ug/L		5.0	0.89	1		03/09/12 10:52	135-98-8	
tert-Butylbenzene	<0.97 ug/L		1.0	0.97	1		03/09/12 10:52	98-06-6	
Carbon tetrachloride	<0.49 ug/L		1.0	0.49	1		03/09/12 10:52	56-23-5	
Chlorobenzene	<0.41 ug/L		1.0	0.41	1		03/09/12 10:52	108-90-7	
Chloroethane	<0.97 ug/L		1.0	0.97	1		03/09/12 10:52	75-00-3	
Chloroform	<1.3 ug/L		5.0	1.3	1		03/09/12 10:52	67-66-3	
Chloromethane	<0.24 ug/L		1.0	0.24	1		03/09/12 10:52	74-87-3	
2-Chlorotoluene	<0.85 ug/L		1.0	0.85	1		03/09/12 10:52	95-49-8	
4-Chlorotoluene	<0.74 ug/L		1.0	0.74	1		03/09/12 10:52	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7 ug/L		5.0	1.7	1		03/09/12 10:52	96-12-8	
Dibromochloromethane	<0.81 ug/L		1.0	0.81	1		03/09/12 10:52	124-48-1	
1,2-Dibromoethane (EDB)	<0.56 ug/L		1.0	0.56	1		03/09/12 10:52	106-93-4	
Dibromomethane	<0.60 ug/L		1.0	0.60	1		03/09/12 10:52	74-95-3	
1,2-Dichlorobenzene	<0.83 ug/L		1.0	0.83	1		03/09/12 10:52	95-50-1	
1,3-Dichlorobenzene	<0.87 ug/L		1.0	0.87	1		03/09/12 10:52	541-73-1	
1,4-Dichlorobenzene	<0.95 ug/L		1.0	0.95	1		03/09/12 10:52	106-46-7	
Dichlorodifluoromethane	<0.99 ug/L		1.0	0.99	1		03/09/12 10:52	75-71-8	
1,1-Dichloroethane	<0.75 ug/L		1.0	0.75	1		03/09/12 10:52	75-34-3	
1,2-Dichloroethane	<0.36 ug/L		1.0	0.36	1		03/09/12 10:52	107-06-2	
1,1-Dichloroethene	<0.57 ug/L		1.0	0.57	1		03/09/12 10:52	75-35-4	
cis-1,2-Dichloroethene	<0.83 ug/L		1.0	0.83	1		03/09/12 10:52	156-59-2	
trans-1,2-Dichloroethene	<0.89 ug/L		1.0	0.89	1		03/09/12 10:52	156-60-5	
1,2-Dichloropropane	<0.49 ug/L		1.0	0.49	1		03/09/12 10:52	78-87-5	
1,3-Dichloropropane	<0.61 ug/L		1.0	0.61	1		03/09/12 10:52	142-28-9	
2,2-Dichloropropane	<0.62 ug/L		1.0	0.62	1		03/09/12 10:52	594-20-7	
1,1-Dichloropropene	<0.75 ug/L		1.0	0.75	1		03/09/12 10:52	563-58-6	
cis-1,3-Dichloropropene	<0.20 ug/L		1.0	0.20	1		03/09/12 10:52	10061-01-5	
trans-1,3-Dichloropropene	<0.19 ug/L		1.0	0.19	1		03/09/12 10:52	10061-02-6	
Diisopropyl ether	<0.76 ug/L		1.0	0.76	1		03/09/12 10:52	108-20-3	
Ethylbenzene	<0.54 ug/L		1.0	0.54	1		03/09/12 10:52	100-41-4	
Hexachloro-1,3-butadiene	<0.67 ug/L		5.0	0.67	1		03/09/12 10:52	87-68-3	
Isopropylbenzene (Cumene)	<0.59 ug/L		1.0	0.59	1		03/09/12 10:52	98-82-8	
p-Isopropyltoluene	<0.67 ug/L		1.0	0.67	1		03/09/12 10:52	99-87-6	
Methylene Chloride	<0.43 ug/L		1.0	0.43	1		03/09/12 10:52	75-09-2	
Methyl-tert-butyl ether	<0.61 ug/L		1.0	0.61	1		03/09/12 10:52	1634-04-4	
Naphthalene	<0.89 ug/L		5.0	0.89	1		03/09/12 10:52	91-20-3	
n-Propylbenzene	<0.81 ug/L		1.0	0.81	1		03/09/12 10:52	103-65-1	
Styrene	<0.86 ug/L		1.0	0.86	1		03/09/12 10:52	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92 ug/L		1.0	0.92	1		03/09/12 10:52	630-20-6	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: TRIP BLANK Lab ID: 4057535010 Collected: 03/07/12 00:00 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		03/09/12 10:52	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		03/09/12 10:52	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		03/09/12 10:52	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		03/09/12 10:52	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		03/09/12 10:52	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		03/09/12 10:52	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		03/09/12 10:52	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		03/09/12 10:52	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		03/09/12 10:52	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		03/09/12 10:52	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 10:52	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 10:52	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/09/12 10:52	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		03/09/12 10:52	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		03/09/12 10:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	76 %		70-130		1		03/09/12 10:52	460-00-4	
Dibromofluoromethane (S)	86 %		70-130		1		03/09/12 10:52	1868-53-7	
Toluene-d8 (S)	84 %		70-130		1		03/09/12 10:52	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: QC-1 Lab ID: 4057535011 Collected: 03/07/12 00:00 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<0.41	ug/L	1.0	0.41	1		03/09/12 13:54	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		03/09/12 13:54	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		03/09/12 13:54	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		03/09/12 13:54	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		03/09/12 13:54	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		03/09/12 13:54	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		03/09/12 13:54	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		03/09/12 13:54	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 13:54	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		03/09/12 13:54	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		03/09/12 13:54	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		03/09/12 13:54	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		03/09/12 13:54	67-66-3	
Chloromethane	0.27J	ug/L	1.0	0.24	1		03/09/12 13:54	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		03/09/12 13:54	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		03/09/12 13:54	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		03/09/12 13:54	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		03/09/12 13:54	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		03/09/12 13:54	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		03/09/12 13:54	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:54	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		03/09/12 13:54	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		03/09/12 13:54	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		03/09/12 13:54	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		03/09/12 13:54	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		03/09/12 13:54	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		03/09/12 13:54	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:54	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		03/09/12 13:54	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		03/09/12 13:54	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		03/09/12 13:54	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		03/09/12 13:54	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		03/09/12 13:54	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		03/09/12 13:54	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		03/09/12 13:54	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		03/09/12 13:54	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		03/09/12 13:54	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		03/09/12 13:54	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		03/09/12 13:54	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		03/09/12 13:54	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		03/09/12 13:54	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		03/09/12 13:54	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		03/09/12 13:54	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		03/09/12 13:54	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		03/09/12 13:54	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		03/09/12 13:54	630-20-6	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Sample: QC-1 Lab ID: 4057535011 Collected: 03/07/12 00:00 Received: 03/08/12 14:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		03/09/12 13:54	79-34-5	
Tetrachloroethene	1.1	ug/L	1.0	0.45	1		03/09/12 13:54	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		03/09/12 13:54	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		03/09/12 13:54	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		03/09/12 13:54	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		03/09/12 13:54	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		03/09/12 13:54	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		03/09/12 13:54	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		03/09/12 13:54	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		03/09/12 13:54	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		03/09/12 13:54	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:54	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/09/12 13:54	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		03/09/12 13:54	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		03/09/12 13:54	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	77 %.		70-130		1		03/09/12 13:54	460-00-4	
Dibromofluoromethane (S)	92 %.		70-130		1		03/09/12 13:54	1868-53-7	
Toluene-d8 (S)	85 %.		70-130		1		03/09/12 13:54	2037-26-5	

QUALITY CONTROL DATA

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

QC Batch: MSV/14421 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 4057535001, 4057535002, 4057535003, 4057535004, 4057535005, 4057535006, 4057535007, 4057535008, 4057535009, 4057535010, 4057535011

METHOD BLANK: 576659 Matrix: Water
Associated Lab Samples: 4057535001, 4057535002, 4057535003, 4057535004, 4057535005, 4057535006, 4057535007, 4057535008, 4057535009, 4057535010, 4057535011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.92	1.0	03/09/12 07:49	
1,1,1-Trichloroethane	ug/L	<0.90	1.0	03/09/12 07:49	
1,1,2,2-Tetrachloroethane	ug/L	<0.20	1.0	03/09/12 07:49	
1,1,2-Trichloroethane	ug/L	<0.42	1.0	03/09/12 07:49	
1,1-Dichloroethane	ug/L	<0.75	1.0	03/09/12 07:49	
1,1-Dichloroethene	ug/L	<0.57	1.0	03/09/12 07:49	
1,1-Dichloropropene	ug/L	<0.75	1.0	03/09/12 07:49	
1,2,3-Trichlorobenzene	ug/L	<0.74	1.0	03/09/12 07:49	
1,2,3-Trichloropropane	ug/L	<0.99	1.0	03/09/12 07:49	
1,2,4-Trichlorobenzene	ug/L	<0.97	5.0	03/09/12 07:49	
1,2,4-Trimethylbenzene	ug/L	<0.97	1.0	03/09/12 07:49	
1,2-Dibromo-3-chloropropane	ug/L	<1.7	5.0	03/09/12 07:49	
1,2-Dibromoethane (EDB)	ug/L	<0.56	1.0	03/09/12 07:49	
1,2-Dichlorobenzene	ug/L	<0.83	1.0	03/09/12 07:49	
1,2-Dichloroethane	ug/L	<0.36	1.0	03/09/12 07:49	
1,2-Dichloropropane	ug/L	<0.49	1.0	03/09/12 07:49	
1,3,5-Trimethylbenzene	ug/L	<0.83	1.0	03/09/12 07:49	
1,3-Dichlorobenzene	ug/L	<0.87	1.0	03/09/12 07:49	
1,3-Dichloropropane	ug/L	<0.61	1.0	03/09/12 07:49	
1,4-Dichlorobenzene	ug/L	<0.95	1.0	03/09/12 07:49	
2,2-Dichloropropane	ug/L	<0.62	1.0	03/09/12 07:49	
2-Chlorotoluene	ug/L	<0.85	1.0	03/09/12 07:49	
4-Chlorotoluene	ug/L	<0.74	1.0	03/09/12 07:49	
Benzene	ug/L	<0.41	1.0	03/09/12 07:49	
Bromobenzene	ug/L	<0.82	1.0	03/09/12 07:49	
Bromochloromethane	ug/L	<0.97	1.0	03/09/12 07:49	
Bromodichloromethane	ug/L	<0.56	1.0	03/09/12 07:49	
Bromoform	ug/L	<0.94	1.0	03/09/12 07:49	
Bromomethane	ug/L	<0.91	1.0	03/09/12 07:49	
Carbon tetrachloride	ug/L	<0.49	1.0	03/09/12 07:49	
Chlorobenzene	ug/L	<0.41	1.0	03/09/12 07:49	
Chloroethane	ug/L	<0.97	1.0	03/09/12 07:49	
Chloroform	ug/L	<1.3	5.0	03/09/12 07:49	
Chloromethane	ug/L	<0.24	1.0	03/09/12 07:49	
cis-1,2-Dichloroethene	ug/L	<0.83	1.0	03/09/12 07:49	
cis-1,3-Dichloropropene	ug/L	<0.20	1.0	03/09/12 07:49	
Dibromochloromethane	ug/L	<0.81	1.0	03/09/12 07:49	
Dibromomethane	ug/L	<0.60	1.0	03/09/12 07:49	
Dichlorodifluoromethane	ug/L	<0.99	1.0	03/09/12 07:49	
Diisopropyl ether	ug/L	<0.76	1.0	03/09/12 07:49	
Ethylbenzene	ug/L	<0.54	1.0	03/09/12 07:49	

QUALITY CONTROL DATA

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

METHOD BLANK: 576659 Matrix: Water
Associated Lab Samples: 4057535001, 4057535002, 4057535003, 4057535004, 4057535005, 4057535006, 4057535007, 4057535008, 4057535009, 4057535010, 4057535011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<0.67	5.0	03/09/12 07:49	
Isopropylbenzene (Cumene)	ug/L	<0.59	1.0	03/09/12 07:49	
m&p-Xylene	ug/L	<1.8	2.0	03/09/12 07:49	
Methyl-tert-butyl ether	ug/L	<0.61	1.0	03/09/12 07:49	
Methylene Chloride	ug/L	<0.43	1.0	03/09/12 07:49	
n-Butylbenzene	ug/L	<0.93	1.0	03/09/12 07:49	
n-Propylbenzene	ug/L	<0.81	1.0	03/09/12 07:49	
Naphthalene	ug/L	<0.89	5.0	03/09/12 07:49	
o-Xylene	ug/L	<0.83	1.0	03/09/12 07:49	
p-Isopropyltoluene	ug/L	<0.67	1.0	03/09/12 07:49	
sec-Butylbenzene	ug/L	<0.89	5.0	03/09/12 07:49	
Styrene	ug/L	<0.86	1.0	03/09/12 07:49	
tert-Butylbenzene	ug/L	<0.97	1.0	03/09/12 07:49	
Tetrachloroethene	ug/L	<0.45	1.0	03/09/12 07:49	
Toluene	ug/L	<0.67	1.0	03/09/12 07:49	
trans-1,2-Dichloroethene	ug/L	<0.89	1.0	03/09/12 07:49	
trans-1,3-Dichloropropene	ug/L	<0.19	1.0	03/09/12 07:49	
Trichloroethene	ug/L	<0.48	1.0	03/09/12 07:49	
Trichlorofluoromethane	ug/L	<0.79	1.0	03/09/12 07:49	
Vinyl chloride	ug/L	<0.18	1.0	03/09/12 07:49	
4-Bromofluorobenzene (S)	%	76	70-130	03/09/12 07:49	
Dibromofluoromethane (S)	%	89	70-130	03/09/12 07:49	
Toluene-d8 (S)	%	87	70-130	03/09/12 07:49	

LABORATORY CONTROL SAMPLE & LCSD: 576660		576661								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	55.6	55.9	111	112	70-133	.6	20	
1,1,2,2-Tetrachloroethane	ug/L	50	50.7	50.8	101	102	70-130	.3	20	
1,1,2-Trichloroethane	ug/L	50	51.1	52.1	102	104	70-130	2	20	
1,1-Dichloroethane	ug/L	50	57.0	58.3	114	117	70-130	2	20	
1,1-Dichloroethene	ug/L	50	53.3	53.2	107	106	70-130	.3	20	
1,2,4-Trichlorobenzene	ug/L	50	45.3	46.1	91	92	70-130	2	20	
1,2-Dibromo-3-chloropropane	ug/L	50	45.9	46.4	92	93	50-150	1	20	
1,2-Dibromoethane (EDB)	ug/L	50	50.2	49.9	100	100	70-130	.7	20	
1,2-Dichlorobenzene	ug/L	50	48.2	48.9	96	98	70-130	1	20	
1,2-Dichloroethane	ug/L	50	59.2	59.0	118	118	70-145	.4	20	
1,2-Dichloropropane	ug/L	50	57.2	56.9	114	114	70-130	.5	20	
1,3-Dichlorobenzene	ug/L	50	47.9	48.1	96	96	70-130	.4	20	
1,4-Dichlorobenzene	ug/L	50	48.2	49.1	96	98	70-130	2	20	
Benzene	ug/L	50	57.1	56.8	114	114	70-130	.6	20	
Bromodichloromethane	ug/L	50	54.2	54.5	108	109	70-130	.5	20	
Bromoform	ug/L	50	44.5	44.1	89	88	70-130	.9	20	
Bromomethane	ug/L	50	57.5	60.4	115	121	52-155	5	20	

QUALITY CONTROL DATA

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

LABORATORY CONTROL SAMPLE & LCSD: 576660		576661								
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Carbon tetrachloride	ug/L	50	61.6	62.1	123	124	70-153	.8	20	
Chlorobenzene	ug/L	50	52.2	52.7	104	105	70-130	1	20	
Chloroethane	ug/L	50	59.5	58.7	119	117	70-130	1	20	
Chloroform	ug/L	50	55.7	55.5	111	111	70-130	.3	20	
Chloromethane	ug/L	50	64.5	62.7	129	125	50-130	3	20	
cis-1,2-Dichloroethene	ug/L	50	53.4	53.6	107	107	70-130	.5	20	
cis-1,3-Dichloropropene	ug/L	50	57.8	57.4	116	115	70-130	.7	20	
Dibromochloromethane	ug/L	50	49.2	50.7	98	101	70-130	3	20	
Dichlorodifluoromethane	ug/L	50	56.7	57.8	113	116	50-150	2	20	
Ethylbenzene	ug/L	50	54.6	55.2	109	110	70-130	1	20	
Isopropylbenzene (Cumene)	ug/L	50	55.6	55.9	111	112	70-130	.5	20	
m&p-Xylene	ug/L	100	109	110	109	110	70-130	1	20	
Methyl-tert-butyl ether	ug/L	50	52.1	51.9	104	104	70-130	.3	20	
Methylene Chloride	ug/L	50	53.6	53.2	107	106	70-130	.8	20	
o-Xylene	ug/L	50	53.2	53.5	106	107	70-130	.6	20	
Styrene	ug/L	50	54.3	54.3	109	109	70-130	.09	20	
Tetrachloroethene	ug/L	50	49.0	49.1	98	98	70-130	.1	20	
Toluene	ug/L	50	53.2	52.7	106	105	70-130	1	20	
trans-1,2-Dichloroethene	ug/L	50	56.0	55.3	112	111	70-130	1	20	
trans-1,3-Dichloropropene	ug/L	50	48.4	49.1	97	98	70-130	1	20	
Trichloroethene	ug/L	50	54.4	54.4	109	109	70-130	.03	20	
Trichlorofluoromethane	ug/L	50	59.0	58.5	118	117	50-150	1	20	
Vinyl chloride	ug/L	50	59.4	60.1	119	120	66-130	1	20	
4-Bromofluorobenzene (S)	%				82	82	70-130			
Dibromofluoromethane (S)	%				89	89	70-130			
Toluene-d8 (S)	%				87	87	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 576738		576739										
Parameter	Units	4057535002		MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
		Result	Conc.	Spike Conc.	Spike Conc.							
1,1,1-Trichloroethane	ug/L	<0.90	50	50	56.0	55.9	112	112	70-133	.2	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.20	50	50	56.5	56.6	113	113	70-130	.3	20	
1,1,2-Trichloroethane	ug/L	<0.42	50	50	55.1	54.9	110	110	70-130	.4	20	
1,1-Dichloroethane	ug/L	<0.75	50	50	58.6	58.4	117	117	70-133	.4	20	
1,1-Dichloroethene	ug/L	<0.57	50	50	53.1	52.6	106	105	70-130	.8	20	
1,2,4-Trichlorobenzene	ug/L	<0.97	50	50	46.6	46.6	92	92	70-130	.06	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.7	50	50	52.3	51.6	105	103	50-150	1	20	
1,2-Dibromoethane (EDB)	ug/L	<0.56	50	50	53.3	53.1	107	106	70-130	.5	20	
1,2-Dichlorobenzene	ug/L	<0.83	50	50	49.5	49.5	98	98	70-130	.07	20	
1,2-Dichloroethane	ug/L	<0.36	50	50	60.4	61.1	121	122	70-145	1	20	
1,2-Dichloropropane	ug/L	<0.49	50	50	58.2	57.8	116	116	70-130	.7	20	
1,3-Dichlorobenzene	ug/L	<0.87	50	50	47.9	47.6	96	95	70-130	.5	20	
1,4-Dichlorobenzene	ug/L	<0.95	50	50	49.6	49.0	99	98	70-130	1	20	
Benzene	ug/L	<0.41	50	50	57.5	57.3	115	115	70-130	.5	20	
Bromodichloromethane	ug/L	<0.56	50	50	54.6	54.1	109	108	70-130	.9	20	
Bromoform	ug/L	<0.94	50	50	44.9	43.7	90	87	70-130	3	20	

Date: 03/12/2012 04:33 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Parameter	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 576738				576739				% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
	Units	4057535002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec							
Bromomethane	ug/L	<0.91	50	50	58.4	59.8	117	120	52-155	2	20				
Carbon tetrachloride	ug/L	<0.49	50	50	60.6	60.2	121	120	70-158	.7	20				
Chlorobenzene	ug/L	<0.41	50	50	53.3	52.8	107	106	70-130	1	20				
Chloroethane	ug/L	<0.97	50	50	58.8	58.1	118	116	70-130	1	20				
Chloroform	ug/L	<1.3	50	50	56.2	55.6	112	111	70-130	1	20				
Chloromethane	ug/L	<0.24	50	50	61.9	59.8	124	120	46-130	3	20				
cis-1,2-Dichloroethene	ug/L	<0.83	50	50	54.6	54.4	109	109	70-130	.5	20				
cis-1,3-Dichloropropene	ug/L	<0.20	50	50	57.0	54.5	114	109	70-130	5	20				
Dibromochloromethane	ug/L	<0.81	50	50	49.8	49.7	100	99	70-130	.4	20				
Dichlorodifluoromethane	ug/L	<0.99	50	50	53.6	54.0	107	108	50-150	.7	20				
Ethylbenzene	ug/L	<0.54	50	50	55.3	54.7	111	109	70-130	1	20				
Isopropylbenzene (Cumene)	ug/L	<0.59	50	50	55.7	55.5	111	111	70-130	.3	20				
m&p-Xylene	ug/L	<1.8	100	100	109	109	109	109	70-130	.4	20				
Methyl-tert-butyl ether	ug/L	<0.61	50	50	56.4	56.7	113	113	70-130	.4	20				
Methylene Chloride	ug/L	<0.43	50	50	53.9	53.1	108	106	70-130	2	20				
o-Xylene	ug/L	<0.83	50	50	53.0	53.0	106	106	70-130	.05	20				
Styrene	ug/L	<0.86	50	50	27.5	27.7	55	55	19-157	.5	20				
Tetrachloroethene	ug/L	<0.45	50	50	50.1	49.9	99	99	70-130	.3	20				
Toluene	ug/L	<0.67	50	50	53.9	53.7	108	107	70-130	.4	20				
trans-1,2-Dichloroethene	ug/L	<0.89	50	50	55.3	55.6	111	111	70-130	.4	20				
trans-1,3-Dichloropropene	ug/L	<0.19	50	50	49.4	48.1	99	96	70-130	3	20				
Trichloroethene	ug/L	<0.48	50	50	55.5	54.5	111	109	70-130	2	20				
Trichlorofluoromethane	ug/L	<0.79	50	50	58.0	58.9	116	118	50-150	2	20				
Vinyl chloride	ug/L	<0.18	50	50	58.9	59.0	118	118	62-130	.1	20				
4-Bromofluorobenzene (S)	%						82	81	70-130						
Dibromofluoromethane (S)	%						90	91	70-130						
Toluene-d8 (S)	%						88	87	70-130						

QUALIFIERS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

LABORATORIES

PASI-G Pace Analytical Services - Green Bay



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4057535

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4057535001	MW-1	EPA 8260	MSV/14421		
4057535002	MW-2	EPA 8260	MSV/14421		
4057535003	MW-4	EPA 8260	MSV/14421		
4057535004	MW-5	EPA 8260	MSV/14421		
4057535005	P-5	EPA 8260	MSV/14421		
4057535006	MW-6	EPA 8260	MSV/14421		
4057535007	MW-7	EPA 8260	MSV/14421		
4057535008	MW-8	EPA 8260	MSV/14421		
4057535009	MW-9	EPA 8260	MSV/14421		
4057535010	TRIP BLANK	EPA 8260	MSV/14421		
4057535011	QC-1	EPA 8260	MSV/14421		

June 19, 2012

Paula Richardson
Saga Environmental and Engineering, Inc.
146 E. Milwaukee St.
Jefferson, WI 53549

RE: Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Dear Paula Richardson:

Enclosed are the analytical results for sample(s) received by the laboratory on June 15, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Alea Her

alea.her@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334

New York Certification #: 11888
North Carolina Certification #: 503
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4061923001	MW-1	Water	06/12/12 10:00	06/15/12 09:50
4061923002	MW-2	Water	06/12/12 13:30	06/15/12 09:50
4061923003	MW-4	Water	06/12/12 09:00	06/15/12 09:50
4061923004	MW-5	Water	06/12/12 15:30	06/15/12 09:50
4061923005	P-5	Water	06/12/12 15:00	06/15/12 09:50
4061923006	MW-6	Water	06/12/12 14:30	06/15/12 09:50
4061923007	MW-7	Water	06/12/12 11:00	06/15/12 09:50
4061923008	MW-8	Water	06/12/12 11:50	06/15/12 09:50
4061923009	MW-9	Water	06/12/12 12:30	06/15/12 09:50
4061923010	QC-1	Water	06/12/12 09:30	06/15/12 09:50
4061923011	TRIP BLANK	Water	06/12/12 00:00	06/15/12 09:50

REPORT OF LABORATORY ANALYSIS

SAMPLE ANALYTE COUNT

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4061923001	MW-1	EPA 8260	SMT	64	PASI-G
4061923002	MW-2	EPA 8260	SMT	64	PASI-G
4061923003	MW-4	EPA 8260	SMT	64	PASI-G
4061923004	MW-5	EPA 8260	SMT	64	PASI-G
4061923005	P-5	EPA 8260	SMT	64	PASI-G
4061923006	MW-6	EPA 8260	SMT	64	PASI-G
4061923007	MW-7	EPA 8260	SMT	64	PASI-G
4061923008	MW-8	EPA 8260	SMT	64	PASI-G
4061923009	MW-9	EPA 8260	SMT	64	PASI-G
4061923010	QC-1	EPA 8260	SMT	64	PASI-G
4061923011	TRIP BLANK	EPA 8260	SMT	64	PASI-G

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-1 Lab ID: 4061923001 Collected: 06/12/12 10:00 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<0.41	ug/L	1.0	0.41	1		06/18/12 19:06	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		06/18/12 19:06	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		06/18/12 19:06	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		06/18/12 19:06	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		06/18/12 19:06	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		06/18/12 19:06	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		06/18/12 19:06	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		06/18/12 19:06	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 19:06	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		06/18/12 19:06	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		06/18/12 19:06	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		06/18/12 19:06	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		06/18/12 19:06	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		06/18/12 19:06	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		06/18/12 19:06	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		06/18/12 19:06	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		06/18/12 19:06	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		06/18/12 19:06	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		06/18/12 19:06	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		06/18/12 19:06	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 19:06	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		06/18/12 19:06	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		06/18/12 19:06	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		06/18/12 19:06	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		06/18/12 19:06	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		06/18/12 19:06	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		06/18/12 19:06	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		06/18/12 19:06	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		06/18/12 19:06	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		06/18/12 19:06	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		06/18/12 19:06	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		06/18/12 19:06	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		06/18/12 19:06	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		06/18/12 19:06	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		06/18/12 19:06	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		06/18/12 19:06	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		06/18/12 19:06	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		06/18/12 19:06	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		06/18/12 19:06	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		06/18/12 19:06	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		06/18/12 19:06	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		06/18/12 19:06	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		06/18/12 19:06	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		06/18/12 19:06	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		06/18/12 19:06	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		06/18/12 19:06	630-20-6	

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-1 Lab ID: 4061923001 Collected: 06/12/12 10:00 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		06/18/12 19:06	79-34-5	
Tetrachloroethene	0.72J	ug/L	1.0	0.45	1		06/18/12 19:06	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		06/18/12 19:06	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		06/18/12 19:06	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		06/18/12 19:06	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		06/18/12 19:06	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		06/18/12 19:06	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		06/18/12 19:06	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		06/18/12 19:06	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		06/18/12 19:06	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 19:06	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 19:06	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		06/18/12 19:06	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		06/18/12 19:06	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		06/18/12 19:06	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96 %.		70-130		1		06/18/12 19:06	460-00-4	
Dibromofluoromethane (S)	86 %.		70-130		1		06/18/12 19:06	1868-53-7	pH
Toluene-d8 (S)	99 %.		70-130		1		06/18/12 19:06	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-2 Lab ID: 4061923002 Collected: 06/12/12 13:30 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<0.41	ug/L	1.0	0.41	1		06/18/12 12:06	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		06/18/12 12:06	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		06/18/12 12:06	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		06/18/12 12:06	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		06/18/12 12:06	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		06/18/12 12:06	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		06/18/12 12:06	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		06/18/12 12:06	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 12:06	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		06/18/12 12:06	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		06/18/12 12:06	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		06/18/12 12:06	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		06/18/12 12:06	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		06/18/12 12:06	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		06/18/12 12:06	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		06/18/12 12:06	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		06/18/12 12:06	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		06/18/12 12:06	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		06/18/12 12:06	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		06/18/12 12:06	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 12:06	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		06/18/12 12:06	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		06/18/12 12:06	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		06/18/12 12:06	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		06/18/12 12:06	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		06/18/12 12:06	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		06/18/12 12:06	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		06/18/12 12:06	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		06/18/12 12:06	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		06/18/12 12:06	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		06/18/12 12:06	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		06/18/12 12:06	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		06/18/12 12:06	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		06/18/12 12:06	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		06/18/12 12:06	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		06/18/12 12:06	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		06/18/12 12:06	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		06/18/12 12:06	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		06/18/12 12:06	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		06/18/12 12:06	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		06/18/12 12:06	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		06/18/12 12:06	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		06/18/12 12:06	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		06/18/12 12:06	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		06/18/12 12:06	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		06/18/12 12:06	630-20-6	

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-2 Lab ID: 4061923002 Collected: 06/12/12 13:30 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		06/18/12 12:06	79-34-5	
Tetrachloroethene	0.47J	ug/L	1.0	0.45	1		06/18/12 12:06	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		06/18/12 12:06	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		06/18/12 12:06	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		06/18/12 12:06	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		06/18/12 12:06	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		06/18/12 12:06	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		06/18/12 12:06	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		06/18/12 12:06	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		06/18/12 12:06	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 12:06	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 12:06	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		06/18/12 12:06	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		06/18/12 12:06	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		06/18/12 12:06	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94 %		70-130		1		06/18/12 12:06	460-00-4	
Dibromofluoromethane (S)	88 %		70-130		1		06/18/12 12:06	1868-53-7	
Toluene-d8 (S)	98 %		70-130		1		06/18/12 12:06	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-4 Lab ID: 4061923003 Collected: 06/12/12 09:00 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS.No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.41	ug/L	1.0	0.41	1		06/18/12 12:29	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		06/18/12 12:29	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		06/18/12 12:29	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		06/18/12 12:29	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		06/18/12 12:29	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		06/18/12 12:29	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		06/18/12 12:29	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		06/18/12 12:29	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 12:29	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		06/18/12 12:29	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		06/18/12 12:29	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		06/18/12 12:29	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		06/18/12 12:29	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		06/18/12 12:29	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		06/18/12 12:29	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		06/18/12 12:29	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		06/18/12 12:29	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		06/18/12 12:29	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		06/18/12 12:29	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		06/18/12 12:29	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 12:29	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		06/18/12 12:29	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		06/18/12 12:29	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		06/18/12 12:29	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		06/18/12 12:29	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		06/18/12 12:29	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		06/18/12 12:29	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		06/18/12 12:29	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		06/18/12 12:29	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		06/18/12 12:29	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		06/18/12 12:29	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		06/18/12 12:29	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		06/18/12 12:29	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		06/18/12 12:29	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		06/18/12 12:29	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		06/18/12 12:29	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		06/18/12 12:29	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		06/18/12 12:29	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		06/18/12 12:29	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		06/18/12 12:29	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		06/18/12 12:29	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		06/18/12 12:29	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		06/18/12 12:29	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		06/18/12 12:29	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		06/18/12 12:29	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		06/18/12 12:29	630-20-6	

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-4 Lab ID: 4061923003 Collected: 06/12/12 09:00 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		06/18/12 12:29	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		06/18/12 12:29	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		06/18/12 12:29	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		06/18/12 12:29	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		06/18/12 12:29	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		06/18/12 12:29	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		06/18/12 12:29	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		06/18/12 12:29	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		06/18/12 12:29	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		06/18/12 12:29	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 12:29	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 12:29	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		06/18/12 12:29	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		06/18/12 12:29	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		06/18/12 12:29	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94 %		70-130		1		06/18/12 12:29	460-00-4	
Dibromofluoromethane (S)	87 %		70-130		1		06/18/12 12:29	1868-53-7	
Toluene-d8 (S)	97 %		70-130		1		06/18/12 12:29	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-5 Lab ID: 4061923004 Collected: 06/12/12 15:30 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<51.2	ug/L	125	51.2	125		06/18/12 17:33	71-43-2	
Bromobenzene	<102	ug/L	125	102	125		06/18/12 17:33	108-86-1	
Bromochloromethane	<121	ug/L	125	121	125		06/18/12 17:33	74-97-5	
Bromodichloromethane	<70.0	ug/L	125	70.0	125		06/18/12 17:33	75-27-4	
Bromoform	<118	ug/L	125	118	125		06/18/12 17:33	75-25-2	
Bromomethane	<114	ug/L	125	114	125		06/18/12 17:33	74-83-9	
n-Butylbenzene	<116	ug/L	125	116	125		06/18/12 17:33	104-51-8	
sec-Butylbenzene	<111	ug/L	625	111	125		06/18/12 17:33	135-98-8	
tert-Butylbenzene	<121	ug/L	125	121	125		06/18/12 17:33	98-06-6	
Carbon tetrachloride	<61.2	ug/L	125	61.2	125		06/18/12 17:33	56-23-5	
Chlorobenzene	<51.2	ug/L	125	51.2	125		06/18/12 17:33	108-90-7	
Chloroethane	<121	ug/L	125	121	125		06/18/12 17:33	75-00-3	
Chloroform	<162	ug/L	625	162	125		06/18/12 17:33	67-66-3	
Chloromethane	<30.0	ug/L	125	30.0	125		06/18/12 17:33	74-87-3	
2-Chlorotoluene	<106	ug/L	125	106	125		06/18/12 17:33	95-49-8	
4-Chlorotoluene	<92.5	ug/L	125	92.5	125		06/18/12 17:33	106-43-4	
1,2-Dibromo-3-chloropropane	<210	ug/L	625	210	125		06/18/12 17:33	96-12-8	
Dibromochloromethane	<101	ug/L	125	101	125		06/18/12 17:33	124-48-1	
1,2-Dibromoethane (EDB)	<70.0	ug/L	125	70.0	125		06/18/12 17:33	106-93-4	
Dibromomethane	<75.0	ug/L	125	75.0	125		06/18/12 17:33	74-95-3	
1,2-Dichlorobenzene	<104	ug/L	125	104	125		06/18/12 17:33	95-50-1	
1,3-Dichlorobenzene	<109	ug/L	125	109	125		06/18/12 17:33	541-73-1	
1,4-Dichlorobenzene	<119	ug/L	125	119	125		06/18/12 17:33	106-46-7	
Dichlorodifluoromethane	<124	ug/L	125	124	125		06/18/12 17:33	75-71-8	
1,1-Dichloroethane	<93.8	ug/L	125	93.8	125		06/18/12 17:33	75-34-3	
1,2-Dichloroethane	<45.0	ug/L	125	45.0	125		06/18/12 17:33	107-06-2	
1,1-Dichloroethene	<71.2	ug/L	125	71.2	125		06/18/12 17:33	75-35-4	
cis-1,2-Dichloroethene	<104	ug/L	125	104	125		06/18/12 17:33	156-59-2	
trans-1,2-Dichloroethene	<111	ug/L	125	111	125		06/18/12 17:33	156-60-5	
1,2-Dichloropropane	<61.2	ug/L	125	61.2	125		06/18/12 17:33	78-87-5	
1,3-Dichloropropane	<76.2	ug/L	125	76.2	125		06/18/12 17:33	142-28-9	
2,2-Dichloropropane	<77.5	ug/L	125	77.5	125		06/18/12 17:33	594-20-7	
1,1-Dichloropropene	<93.8	ug/L	125	93.8	125		06/18/12 17:33	563-58-6	
cis-1,3-Dichloropropene	<25.0	ug/L	125	25.0	125		06/18/12 17:33	10061-01-5	
trans-1,3-Dichloropropene	<23.8	ug/L	125	23.8	125		06/18/12 17:33	10061-02-6	
Diisopropyl ether	<95.0	ug/L	125	95.0	125		06/18/12 17:33	108-20-3	
Ethylbenzene	<67.5	ug/L	125	67.5	125		06/18/12 17:33	100-41-4	
Hexachloro-1,3-butadiene	<83.8	ug/L	625	83.8	125		06/18/12 17:33	87-68-3	
Isopropylbenzene (Cumene)	<73.8	ug/L	125	73.8	125		06/18/12 17:33	98-82-8	
p-Isopropyltoluene	<83.8	ug/L	125	83.8	125		06/18/12 17:33	99-87-6	
Methylene Chloride	98.9J	ug/L	125	53.8	125		06/18/12 17:33	75-09-2	
Methyl-tert-butyl ether	<76.2	ug/L	125	76.2	125		06/18/12 17:33	1634-04-4	
Naphthalene	<111	ug/L	625	111	125		06/18/12 17:33	91-20-3	
n-Propylbenzene	<101	ug/L	125	101	125		06/18/12 17:33	103-65-1	
Styrene	<108	ug/L	125	108	125		06/18/12 17:33	100-42-5	
1,1,1,2-Tetrachloroethane	<115	ug/L	125	115	125		06/18/12 17:33	630-20-6	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-5 **Lab ID: 4061923004** Collected: 06/12/12 15:30 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<25.0	ug/L	125	25.0	125		06/18/12 17:33	79-34-5	
Tetrachloroethene	19100	ug/L	125	56.2	125		06/18/12 17:33	127-18-4	
Toluene	<83.8	ug/L	125	83.8	125		06/18/12 17:33	108-88-3	
1,2,3-Trichlorobenzene	<92.5	ug/L	125	92.5	125		06/18/12 17:33	87-61-6	
1,2,4-Trichlorobenzene	<121	ug/L	625	121	125		06/18/12 17:33	120-82-1	
1,1,1-Trichloroethane	<112	ug/L	125	112	125		06/18/12 17:33	71-55-6	
1,1,2-Trichloroethane	<52.5	ug/L	125	52.5	125		06/18/12 17:33	79-00-5	
Trichloroethene	<60.0	ug/L	125	60.0	125		06/18/12 17:33	79-01-6	
Trichlorofluoromethane	<98.8	ug/L	125	98.8	125		06/18/12 17:33	75-69-4	
1,2,3-Trichloropropane	<124	ug/L	125	124	125		06/18/12 17:33	96-18-4	
1,2,4-Trimethylbenzene	<121	ug/L	125	121	125		06/18/12 17:33	95-63-6	
1,3,5-Trimethylbenzene	<104	ug/L	125	104	125		06/18/12 17:33	108-67-8	
Vinyl chloride	<22.5	ug/L	125	22.5	125		06/18/12 17:33	75-01-4	
m&p-Xylene	<225	ug/L	250	225	125		06/18/12 17:33	179601-23-1	
o-Xylene	<104	ug/L	125	104	125		06/18/12 17:33	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	92 %		70-130		125		06/18/12 17:33	460-00-4	
Dibromofluoromethane (S)	88 %		70-130		125		06/18/12 17:33	1868-53-7	
Toluene-d8 (S)	96 %		70-130		125		06/18/12 17:33	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: P-5 Lab ID: 4061923005 Collected: 06/12/12 15:00 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<0.41	ug/L	1.0	0.41	1		06/18/12 12:52	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		06/18/12 12:52	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		06/18/12 12:52	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		06/18/12 12:52	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		06/18/12 12:52	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		06/18/12 12:52	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		06/18/12 12:52	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		06/18/12 12:52	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 12:52	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		06/18/12 12:52	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		06/18/12 12:52	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		06/18/12 12:52	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		06/18/12 12:52	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		06/18/12 12:52	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		06/18/12 12:52	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		06/18/12 12:52	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		06/18/12 12:52	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		06/18/12 12:52	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		06/18/12 12:52	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		06/18/12 12:52	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 12:52	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		06/18/12 12:52	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		06/18/12 12:52	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		06/18/12 12:52	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		06/18/12 12:52	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		06/18/12 12:52	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		06/18/12 12:52	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		06/18/12 12:52	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		06/18/12 12:52	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		06/18/12 12:52	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		06/18/12 12:52	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		06/18/12 12:52	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		06/18/12 12:52	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		06/18/12 12:52	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		06/18/12 12:52	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		06/18/12 12:52	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		06/18/12 12:52	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		06/18/12 12:52	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		06/18/12 12:52	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		06/18/12 12:52	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		06/18/12 12:52	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		06/18/12 12:52	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		06/18/12 12:52	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		06/18/12 12:52	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		06/18/12 12:52	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		06/18/12 12:52	630-20-6	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN

Pace Project No.: 4061923

Sample: P-5 Lab ID: 4061923005 Collected: 06/12/12 15:00 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20 ug/L		1.0	0.20	1		06/18/12 12:52	79-34-5	
Tetrachloroethene	<0.45 ug/L		1.0	0.45	1		06/18/12 12:52	127-18-4	
Toluene	<0.67 ug/L		1.0	0.67	1		06/18/12 12:52	108-88-3	
1,2,3-Trichlorobenzene	<0.74 ug/L		1.0	0.74	1		06/18/12 12:52	87-61-6	
1,2,4-Trichlorobenzene	<0.97 ug/L		5.0	0.97	1		06/18/12 12:52	120-82-1	
1,1,1-Trichloroethane	<0.90 ug/L		1.0	0.90	1		06/18/12 12:52	71-55-6	
1,1,2-Trichloroethane	<0.42 ug/L		1.0	0.42	1		06/18/12 12:52	79-00-5	
Trichloroethene	<0.48 ug/L		1.0	0.48	1		06/18/12 12:52	79-01-6	
Trichlorofluoromethane	<0.79 ug/L		1.0	0.79	1		06/18/12 12:52	75-69-4	
1,2,3-Trichloropropane	<0.99 ug/L		1.0	0.99	1		06/18/12 12:52	96-18-4	
1,2,4-Trimethylbenzene	<0.97 ug/L		1.0	0.97	1		06/18/12 12:52	95-63-6	
1,3,5-Trimethylbenzene	<0.83 ug/L		1.0	0.83	1		06/18/12 12:52	108-67-8	
Vinyl chloride	<0.18 ug/L		1.0	0.18	1		06/18/12 12:52	75-01-4	
m&p-Xylene	<1.8 ug/L		2.0	1.8	1		06/18/12 12:52	179601-23-1	
o-Xylene	<0.83 ug/L		1.0	0.83	1		06/18/12 12:52	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96 %.		70-130		1		06/18/12 12:52	460-00-4	
Dibromofluoromethane (S)	89 %.		70-130		1		06/18/12 12:52	1868-53-7	
Toluene-d8 (S)	97 %.		70-130		1		06/18/12 12:52	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-6 Lab ID: 4061923006 Collected: 06/12/12 14:30 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<0.41	ug/L	1.0	0.41	1		06/18/12 14:25	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		06/18/12 14:25	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		06/18/12 14:25	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		06/18/12 14:25	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		06/18/12 14:25	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		06/18/12 14:25	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		06/18/12 14:25	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		06/18/12 14:25	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 14:25	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		06/18/12 14:25	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		06/18/12 14:25	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		06/18/12 14:25	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		06/18/12 14:25	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		06/18/12 14:25	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		06/18/12 14:25	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		06/18/12 14:25	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		06/18/12 14:25	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		06/18/12 14:25	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		06/18/12 14:25	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		06/18/12 14:25	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 14:25	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		06/18/12 14:25	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		06/18/12 14:25	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		06/18/12 14:25	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		06/18/12 14:25	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		06/18/12 14:25	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		06/18/12 14:25	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		06/18/12 14:25	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		06/18/12 14:25	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		06/18/12 14:25	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		06/18/12 14:25	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		06/18/12 14:25	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		06/18/12 14:25	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		06/18/12 14:25	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		06/18/12 14:25	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		06/18/12 14:25	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		06/18/12 14:25	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		06/18/12 14:25	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		06/18/12 14:25	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		06/18/12 14:25	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		06/18/12 14:25	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		06/18/12 14:25	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		06/18/12 14:25	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		06/18/12 14:25	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		06/18/12 14:25	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		06/18/12 14:25	630-20-6	

Date: 06/19/2012 05:36 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN

Pace Project No.: 4061923

Sample: MW-6 Lab ID: 4061923006 Collected: 06/12/12 14:30 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		06/18/12 14:25	79-34-5	
Tetrachloroethene	46.2	ug/L	1.0	0.45	1		06/18/12 14:25	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		06/18/12 14:25	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		06/18/12 14:25	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		06/18/12 14:25	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		06/18/12 14:25	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		06/18/12 14:25	79-00-5	
Trichloroethene	0.57J	ug/L	1.0	0.48	1		06/18/12 14:25	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		06/18/12 14:25	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		06/18/12 14:25	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 14:25	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 14:25	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		06/18/12 14:25	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		06/18/12 14:25	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		06/18/12 14:25	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93 %		70-130		1		06/18/12 14:25	460-00-4	
Dibromofluoromethane (S)	88 %		70-130		1		06/18/12 14:25	1868-53-7	
Toluene-d8 (S)	98 %		70-130		1		06/18/12 14:25	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-7 Lab ID: 4061923007 Collected: 06/12/12 11:00 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<0.41 ug/L		1.0	0.41	1		06/18/12 13:15	71-43-2	
Bromobenzene	<0.82 ug/L		1.0	0.82	1		06/18/12 13:15	108-86-1	
Bromochloromethane	<0.97 ug/L		1.0	0.97	1		06/18/12 13:15	74-97-5	
Bromodichloromethane	<0.56 ug/L		1.0	0.56	1		06/18/12 13:15	75-27-4	
Bromoform	<0.94 ug/L		1.0	0.94	1		06/18/12 13:15	75-25-2	
Bromomethane	<0.91 ug/L		1.0	0.91	1		06/18/12 13:15	74-83-9	
n-Butylbenzene	<0.93 ug/L		1.0	0.93	1		06/18/12 13:15	104-51-8	
sec-Butylbenzene	<0.89 ug/L		5.0	0.89	1		06/18/12 13:15	135-98-8	
tert-Butylbenzene	<0.97 ug/L		1.0	0.97	1		06/18/12 13:15	98-06-6	
Carbon tetrachloride	<0.49 ug/L		1.0	0.49	1		06/18/12 13:15	56-23-5	
Chlorobenzene	<0.41 ug/L		1.0	0.41	1		06/18/12 13:15	108-90-7	
Chloroethane	<0.97 ug/L		1.0	0.97	1		06/18/12 13:15	75-00-3	
Chloroform	<1.3 ug/L		5.0	1.3	1		06/18/12 13:15	67-66-3	
Chloromethane	<0.24 ug/L		1.0	0.24	1		06/18/12 13:15	74-87-3	
2-Chlorotoluene	<0.85 ug/L		1.0	0.85	1		06/18/12 13:15	95-49-8	
4-Chlorotoluene	<0.74 ug/L		1.0	0.74	1		06/18/12 13:15	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7 ug/L		5.0	1.7	1		06/18/12 13:15	96-12-8	
Dibromochloromethane	<0.81 ug/L		1.0	0.81	1		06/18/12 13:15	124-48-1	
1,2-Dibromoethane (EDB)	<0.56 ug/L		1.0	0.56	1		06/18/12 13:15	106-93-4	
Dibromomethane	<0.60 ug/L		1.0	0.60	1		06/18/12 13:15	74-95-3	
1,2-Dichlorobenzene	<0.83 ug/L		1.0	0.83	1		06/18/12 13:15	95-50-1	
1,3-Dichlorobenzene	<0.87 ug/L		1.0	0.87	1		06/18/12 13:15	541-73-1	
1,4-Dichlorobenzene	<0.95 ug/L		1.0	0.95	1		06/18/12 13:15	106-46-7	
Dichlorodifluoromethane	<0.99 ug/L		1.0	0.99	1		06/18/12 13:15	75-71-8	
1,1-Dichloroethane	<0.75 ug/L		1.0	0.75	1		06/18/12 13:15	75-34-3	
1,2-Dichloroethane	<0.36 ug/L		1.0	0.36	1		06/18/12 13:15	107-06-2	
1,1-Dichloroethene	<0.57 ug/L		1.0	0.57	1		06/18/12 13:15	75-35-4	
cis-1,2-Dichloroethene	<0.83 ug/L		1.0	0.83	1		06/18/12 13:15	156-59-2	
trans-1,2-Dichloroethene	<0.89 ug/L		1.0	0.89	1		06/18/12 13:15	156-60-5	
1,2-Dichloropropane	<0.49 ug/L		1.0	0.49	1		06/18/12 13:15	78-87-5	
1,3-Dichloropropane	<0.61 ug/L		1.0	0.61	1		06/18/12 13:15	142-28-9	
2,2-Dichloropropane	<0.62 ug/L		1.0	0.62	1		06/18/12 13:15	594-20-7	
1,1-Dichloropropene	<0.75 ug/L		1.0	0.75	1		06/18/12 13:15	563-58-6	
cis-1,3-Dichloropropene	<0.20 ug/L		1.0	0.20	1		06/18/12 13:15	10061-01-5	
trans-1,3-Dichloropropene	<0.19 ug/L		1.0	0.19	1		06/18/12 13:15	10061-02-6	
Diisopropyl ether	<0.76 ug/L		1.0	0.76	1		06/18/12 13:15	108-20-3	
Ethylbenzene	<0.54 ug/L		1.0	0.54	1		06/18/12 13:15	100-41-4	
Hexachloro-1,3-butadiene	<0.67 ug/L		5.0	0.67	1		06/18/12 13:15	87-68-3	
Isopropylbenzene (Cumene)	<0.59 ug/L		1.0	0.59	1		06/18/12 13:15	98-82-8	
p-Isopropyltoluene	<0.67 ug/L		1.0	0.67	1		06/18/12 13:15	99-87-6	
Methylene Chloride	<0.43 ug/L		1.0	0.43	1		06/18/12 13:15	75-09-2	
Methyl-tert-butyl ether	<0.61 ug/L		1.0	0.61	1		06/18/12 13:15	1634-04-4	
Naphthalene	<0.89 ug/L		5.0	0.89	1		06/18/12 13:15	91-20-3	
n-Propylbenzene	<0.81 ug/L		1.0	0.81	1		06/18/12 13:15	103-65-1	
Styrene	<0.86 ug/L		1.0	0.86	1		06/18/12 13:15	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92 ug/L		1.0	0.92	1		06/18/12 13:15	630-20-6	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN

Pace Project No.: 4061923

Sample: MW-7 **Lab ID:** 4061923007 **Collected:** 06/12/12 11:00 **Received:** 06/15/12 09:50 **Matrix:** Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20 ug/L		1.0	0.20	1		06/18/12 13:15	79-34-5	
Tetrachloroethene	<0.45 ug/L		1.0	0.45	1		06/18/12 13:15	127-18-4	
Toluene	<0.67 ug/L		1.0	0.67	1		06/18/12 13:15	108-88-3	
1,2,3-Trichlorobenzene	<0.74 ug/L		1.0	0.74	1		06/18/12 13:15	87-61-6	
1,2,4-Trichlorobenzene	<0.97 ug/L		5.0	0.97	1		06/18/12 13:15	120-82-1	
1,1,1-Trichloroethane	<0.90 ug/L		1.0	0.90	1		06/18/12 13:15	71-55-6	
1,1,2-Trichloroethane	<0.42 ug/L		1.0	0.42	1		06/18/12 13:15	79-00-5	
Trichloroethene	<0.48 ug/L		1.0	0.48	1		06/18/12 13:15	79-01-6	
Trichlorofluoromethane	<0.79 ug/L		1.0	0.79	1		06/18/12 13:15	75-69-4	
1,2,3-Trichloropropane	<0.99 ug/L		1.0	0.99	1		06/18/12 13:15	96-18-4	
1,2,4-Trimethylbenzene	<0.97 ug/L		1.0	0.97	1		06/18/12 13:15	95-63-6	
1,3,5-Trimethylbenzene	<0.83 ug/L		1.0	0.83	1		06/18/12 13:15	108-67-8	
Vinyl chloride	<0.18 ug/L		1.0	0.18	1		06/18/12 13:15	75-01-4	
m&p-Xylene	<1.8 ug/L		2.0	1.8	1		06/18/12 13:15	179601-23-1	
o-Xylene	<0.83 ug/L		1.0	0.83	1		06/18/12 13:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95 %.		70-130		1		06/18/12 13:15	460-00-4	
Dibromofluoromethane (S)	89 %.		70-130		1		06/18/12 13:15	1868-53-7	
Toluene-d8 (S)	98 %.		70-130		1		06/18/12 13:15	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-8 Lab ID: 4061923008 Collected: 06/12/12 11:50 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<0.41	ug/L	1.0	0.41	1		06/18/12 10:57	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		06/18/12 10:57	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		06/18/12 10:57	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		06/18/12 10:57	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		06/18/12 10:57	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		06/18/12 10:57	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		06/18/12 10:57	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		06/18/12 10:57	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 10:57	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		06/18/12 10:57	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		06/18/12 10:57	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		06/18/12 10:57	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		06/18/12 10:57	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		06/18/12 10:57	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		06/18/12 10:57	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		06/18/12 10:57	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		06/18/12 10:57	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		06/18/12 10:57	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		06/18/12 10:57	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		06/18/12 10:57	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 10:57	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		06/18/12 10:57	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		06/18/12 10:57	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		06/18/12 10:57	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		06/18/12 10:57	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		06/18/12 10:57	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		06/18/12 10:57	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		06/18/12 10:57	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		06/18/12 10:57	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		06/18/12 10:57	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		06/18/12 10:57	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		06/18/12 10:57	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		06/18/12 10:57	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		06/18/12 10:57	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		06/18/12 10:57	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		06/18/12 10:57	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		06/18/12 10:57	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		06/18/12 10:57	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		06/18/12 10:57	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		06/18/12 10:57	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		06/18/12 10:57	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		06/18/12 10:57	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		06/18/12 10:57	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		06/18/12 10:57	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		06/18/12 10:57	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		06/18/12 10:57	630-20-6	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN

Pace Project No.: 4061923

Sample: MW-8 Lab ID: 4061923008 Collected: 06/12/12 11:50 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		06/18/12 10:57	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		06/18/12 10:57	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		06/18/12 10:57	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		06/18/12 10:57	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		06/18/12 10:57	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		06/18/12 10:57	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		06/18/12 10:57	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		06/18/12 10:57	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		06/18/12 10:57	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		06/18/12 10:57	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 10:57	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 10:57	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		06/18/12 10:57	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		06/18/12 10:57	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		06/18/12 10:57	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	94 %		70-130		1		06/18/12 10:57	460-00-4	
Dibromofluoromethane (S)	86 %		70-130		1		06/18/12 10:57	1868-53-7	
Toluene-d8 (S)	98 %		70-130		1		06/18/12 10:57	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: MW-9 Lab ID: 4061923009 Collected: 06/12/12 12:30 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<0.41	ug/L	1.0	0.41	1		06/18/12 13:39	71-43-2	
Bromobenzene	<0.82	ug/L	1.0	0.82	1		06/18/12 13:39	108-86-1	
Bromochloromethane	<0.97	ug/L	1.0	0.97	1		06/18/12 13:39	74-97-5	
Bromodichloromethane	<0.56	ug/L	1.0	0.56	1		06/18/12 13:39	75-27-4	
Bromoform	<0.94	ug/L	1.0	0.94	1		06/18/12 13:39	75-25-2	
Bromomethane	<0.91	ug/L	1.0	0.91	1		06/18/12 13:39	74-83-9	
n-Butylbenzene	<0.93	ug/L	1.0	0.93	1		06/18/12 13:39	104-51-8	
sec-Butylbenzene	<0.89	ug/L	5.0	0.89	1		06/18/12 13:39	135-98-8	
tert-Butylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 13:39	98-06-6	
Carbon tetrachloride	<0.49	ug/L	1.0	0.49	1		06/18/12 13:39	56-23-5	
Chlorobenzene	<0.41	ug/L	1.0	0.41	1		06/18/12 13:39	108-90-7	
Chloroethane	<0.97	ug/L	1.0	0.97	1		06/18/12 13:39	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		06/18/12 13:39	67-66-3	
Chloromethane	<0.24	ug/L	1.0	0.24	1		06/18/12 13:39	74-87-3	
2-Chlorotoluene	<0.85	ug/L	1.0	0.85	1		06/18/12 13:39	95-49-8	
4-Chlorotoluene	<0.74	ug/L	1.0	0.74	1		06/18/12 13:39	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7	ug/L	5.0	1.7	1		06/18/12 13:39	96-12-8	
Dibromochloromethane	<0.81	ug/L	1.0	0.81	1		06/18/12 13:39	124-48-1	
1,2-Dibromoethane (EDB)	<0.56	ug/L	1.0	0.56	1		06/18/12 13:39	106-93-4	
Dibromomethane	<0.60	ug/L	1.0	0.60	1		06/18/12 13:39	74-95-3	
1,2-Dichlorobenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 13:39	95-50-1	
1,3-Dichlorobenzene	<0.87	ug/L	1.0	0.87	1		06/18/12 13:39	541-73-1	
1,4-Dichlorobenzene	<0.95	ug/L	1.0	0.95	1		06/18/12 13:39	106-46-7	
Dichlorodifluoromethane	<0.99	ug/L	1.0	0.99	1		06/18/12 13:39	75-71-8	
1,1-Dichloroethane	<0.75	ug/L	1.0	0.75	1		06/18/12 13:39	75-34-3	
1,2-Dichloroethane	<0.36	ug/L	1.0	0.36	1		06/18/12 13:39	107-06-2	
1,1-Dichloroethene	<0.57	ug/L	1.0	0.57	1		06/18/12 13:39	75-35-4	
cis-1,2-Dichloroethene	<0.83	ug/L	1.0	0.83	1		06/18/12 13:39	156-59-2	
trans-1,2-Dichloroethene	<0.89	ug/L	1.0	0.89	1		06/18/12 13:39	156-60-5	
1,2-Dichloropropane	<0.49	ug/L	1.0	0.49	1		06/18/12 13:39	78-87-5	
1,3-Dichloropropane	<0.61	ug/L	1.0	0.61	1		06/18/12 13:39	142-28-9	
2,2-Dichloropropane	<0.62	ug/L	1.0	0.62	1		06/18/12 13:39	594-20-7	
1,1-Dichloropropene	<0.75	ug/L	1.0	0.75	1		06/18/12 13:39	563-58-6	
cis-1,3-Dichloropropene	<0.20	ug/L	1.0	0.20	1		06/18/12 13:39	10061-01-5	
trans-1,3-Dichloropropene	<0.19	ug/L	1.0	0.19	1		06/18/12 13:39	10061-02-6	
Diisopropyl ether	<0.76	ug/L	1.0	0.76	1		06/18/12 13:39	108-20-3	
Ethylbenzene	<0.54	ug/L	1.0	0.54	1		06/18/12 13:39	100-41-4	
Hexachloro-1,3-butadiene	<0.67	ug/L	5.0	0.67	1		06/18/12 13:39	87-68-3	
Isopropylbenzene (Cumene)	<0.59	ug/L	1.0	0.59	1		06/18/12 13:39	98-82-8	
p-Isopropyltoluene	<0.67	ug/L	1.0	0.67	1		06/18/12 13:39	99-87-6	
Methylene Chloride	<0.43	ug/L	1.0	0.43	1		06/18/12 13:39	75-09-2	
Methyl-tert-butyl ether	<0.61	ug/L	1.0	0.61	1		06/18/12 13:39	1634-04-4	
Naphthalene	<0.89	ug/L	5.0	0.89	1		06/18/12 13:39	91-20-3	
n-Propylbenzene	<0.81	ug/L	1.0	0.81	1		06/18/12 13:39	103-65-1	
Styrene	<0.86	ug/L	1.0	0.86	1		06/18/12 13:39	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92	ug/L	1.0	0.92	1		06/18/12 13:39	630-20-6	

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ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN

Pace Project No.: 4061923

Sample: MW-9 Lab ID: 4061923009 Collected: 06/12/12 12:30 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		06/18/12 13:39	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		06/18/12 13:39	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		06/18/12 13:39	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		06/18/12 13:39	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		06/18/12 13:39	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		06/18/12 13:39	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		06/18/12 13:39	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		06/18/12 13:39	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		06/18/12 13:39	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		06/18/12 13:39	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 13:39	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 13:39	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		06/18/12 13:39	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		06/18/12 13:39	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		06/18/12 13:39	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	95 %		70-130		1		06/18/12 13:39	460-00-4	
Dibromofluoromethane (S)	87 %		70-130		1		06/18/12 13:39	1868-53-7	
Toluene-d8 (S)	99 %		70-130		1		06/18/12 13:39	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: QC-1 Lab ID: 4061923010 Collected: 06/12/12 09:30 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<0.41 ug/L		1.0	0.41	1		06/18/12 14:02	71-43-2	
Bromobenzene	<0.82 ug/L		1.0	0.82	1		06/18/12 14:02	108-86-1	
Bromochloromethane	<0.97 ug/L		1.0	0.97	1		06/18/12 14:02	74-97-5	
Bromodichloromethane	<0.56 ug/L		1.0	0.56	1		06/18/12 14:02	75-27-4	
Bromoform	<0.94 ug/L		1.0	0.94	1		06/18/12 14:02	75-25-2	
Bromomethane	<0.91 ug/L		1.0	0.91	1		06/18/12 14:02	74-83-9	
n-Butylbenzene	<0.93 ug/L		1.0	0.93	1		06/18/12 14:02	104-51-8	
sec-Butylbenzene	<0.89 ug/L		5.0	0.89	1		06/18/12 14:02	135-98-8	
tert-Butylbenzene	<0.97 ug/L		1.0	0.97	1		06/18/12 14:02	98-06-6	
Carbon tetrachloride	<0.49 ug/L		1.0	0.49	1		06/18/12 14:02	56-23-5	
Chlorobenzene	<0.41 ug/L		1.0	0.41	1		06/18/12 14:02	108-90-7	
Chloroethane	<0.97 ug/L		1.0	0.97	1		06/18/12 14:02	75-00-3	
Chloroform	<1.3 ug/L		5.0	1.3	1		06/18/12 14:02	67-66-3	
Chloromethane	<0.24 ug/L		1.0	0.24	1		06/18/12 14:02	74-87-3	
2-Chlorotoluene	<0.85 ug/L		1.0	0.85	1		06/18/12 14:02	95-49-8	
4-Chlorotoluene	<0.74 ug/L		1.0	0.74	1		06/18/12 14:02	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7 ug/L		5.0	1.7	1		06/18/12 14:02	96-12-8	
Dibromochloromethane	<0.81 ug/L		1.0	0.81	1		06/18/12 14:02	124-48-1	
1,2-Dibromoethane (EDB)	<0.56 ug/L		1.0	0.56	1		06/18/12 14:02	106-93-4	
Dibromomethane	<0.60 ug/L		1.0	0.60	1		06/18/12 14:02	74-95-3	
1,2-Dichlorobenzene	<0.83 ug/L		1.0	0.83	1		06/18/12 14:02	95-50-1	
1,3-Dichlorobenzene	<0.87 ug/L		1.0	0.87	1		06/18/12 14:02	541-73-1	
1,4-Dichlorobenzene	<0.95 ug/L		1.0	0.95	1		06/18/12 14:02	106-46-7	
Dichlorodifluoromethane	<0.99 ug/L		1.0	0.99	1		06/18/12 14:02	75-71-8	
1,1-Dichloroethane	<0.75 ug/L		1.0	0.75	1		06/18/12 14:02	75-34-3	
1,2-Dichloroethane	<0.36 ug/L		1.0	0.36	1		06/18/12 14:02	107-06-2	
1,1-Dichloroethene	<0.57 ug/L		1.0	0.57	1		06/18/12 14:02	75-35-4	
cis-1,2-Dichloroethene	<0.83 ug/L		1.0	0.83	1		06/18/12 14:02	156-59-2	
trans-1,2-Dichloroethene	<0.89 ug/L		1.0	0.89	1		06/18/12 14:02	156-60-5	
1,2-Dichloropropane	<0.49 ug/L		1.0	0.49	1		06/18/12 14:02	78-87-5	
1,3-Dichloropropane	<0.61 ug/L		1.0	0.61	1		06/18/12 14:02	142-28-9	
2,2-Dichloropropane	<0.62 ug/L		1.0	0.62	1		06/18/12 14:02	594-20-7	
1,1-Dichloropropene	<0.75 ug/L		1.0	0.75	1		06/18/12 14:02	563-58-6	
cis-1,3-Dichloropropene	<0.20 ug/L		1.0	0.20	1		06/18/12 14:02	10061-01-5	
trans-1,3-Dichloropropene	<0.19 ug/L		1.0	0.19	1		06/18/12 14:02	10061-02-6	
Diisopropyl ether	<0.76 ug/L		1.0	0.76	1		06/18/12 14:02	108-20-3	
Ethylbenzene	<0.54 ug/L		1.0	0.54	1		06/18/12 14:02	100-41-4	
Hexachloro-1,3-butadiene	<0.67 ug/L		5.0	0.67	1		06/18/12 14:02	87-68-3	
Isopropylbenzene (Cumene)	<0.59 ug/L		1.0	0.59	1		06/18/12 14:02	98-82-8	
p-Isopropyltoluene	<0.67 ug/L		1.0	0.67	1		06/18/12 14:02	99-87-6	
Methylene Chloride	<0.43 ug/L		1.0	0.43	1		06/18/12 14:02	75-09-2	
Methyl-tert-butyl ether	<0.61 ug/L		1.0	0.61	1		06/18/12 14:02	1634-04-4	
Naphthalene	<0.89 ug/L		5.0	0.89	1		06/18/12 14:02	91-20-3	
n-Propylbenzene	<0.81 ug/L		1.0	0.81	1		06/18/12 14:02	103-65-1	
Styrene	<0.86 ug/L		1.0	0.86	1		06/18/12 14:02	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92 ug/L		1.0	0.92	1		06/18/12 14:02	630-20-6	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN

Pace Project No.: 4061923

Sample: QC-1 Lab ID: 4061923010 Collected: 06/12/12 09:30 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		06/18/12 14:02	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		06/18/12 14:02	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		06/18/12 14:02	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		06/18/12 14:02	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		06/18/12 14:02	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		06/18/12 14:02	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		06/18/12 14:02	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		06/18/12 14:02	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		06/18/12 14:02	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		06/18/12 14:02	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 14:02	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 14:02	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		06/18/12 14:02	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		06/18/12 14:02	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		06/18/12 14:02	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96 %		70-130		1		06/18/12 14:02	460-00-4	
Dibromofluoromethane (S)	89 %		70-130		1		06/18/12 14:02	1868-53-7	
Toluene-d8 (S)	99 %		70-130		1		06/18/12 14:02	2037-26-5	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Sample: TRIP BLANK Lab ID: 4061923011 Collected: 06/12/12 00:00 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Benzene	<0.41 ug/L		1.0	0.41	1		06/18/12 11:20	71-43-2	
Bromobenzene	<0.82 ug/L		1.0	0.82	1		06/18/12 11:20	108-86-1	
Bromochloromethane	<0.97 ug/L		1.0	0.97	1		06/18/12 11:20	74-97-5	
Bromodichloromethane	<0.56 ug/L		1.0	0.56	1		06/18/12 11:20	75-27-4	
Bromoform	<0.94 ug/L		1.0	0.94	1		06/18/12 11:20	75-25-2	
Bromomethane	<0.91 ug/L		1.0	0.91	1		06/18/12 11:20	74-83-9	
n-Butylbenzene	<0.93 ug/L		1.0	0.93	1		06/18/12 11:20	104-51-8	
sec-Butylbenzene	<0.89 ug/L		5.0	0.89	1		06/18/12 11:20	135-98-8	
tert-Butylbenzene	<0.97 ug/L		1.0	0.97	1		06/18/12 11:20	98-06-6	
Carbon tetrachloride	<0.49 ug/L		1.0	0.49	1		06/18/12 11:20	56-23-5	
Chlorobenzene	<0.41 ug/L		1.0	0.41	1		06/18/12 11:20	108-90-7	
Chloroethane	<0.97 ug/L		1.0	0.97	1		06/18/12 11:20	75-00-3	
Chloroform	<1.3 ug/L		5.0	1.3	1		06/18/12 11:20	67-66-3	
Chloromethane	<0.24 ug/L		1.0	0.24	1		06/18/12 11:20	74-87-3	
2-Chlorotoluene	<0.85 ug/L		1.0	0.85	1		06/18/12 11:20	95-49-8	
4-Chlorotoluene	<0.74 ug/L		1.0	0.74	1		06/18/12 11:20	106-43-4	
1,2-Dibromo-3-chloropropane	<1.7 ug/L		5.0	1.7	1		06/18/12 11:20	96-12-8	
Dibromochloromethane	<0.81 ug/L		1.0	0.81	1		06/18/12 11:20	124-48-1	
1,2-Dibromoethane (EDB)	<0.56 ug/L		1.0	0.56	1		06/18/12 11:20	106-93-4	
Dibromomethane	<0.60 ug/L		1.0	0.60	1		06/18/12 11:20	74-95-3	
1,2-Dichlorobenzene	<0.83 ug/L		1.0	0.83	1		06/18/12 11:20	95-50-1	
1,3-Dichlorobenzene	<0.87 ug/L		1.0	0.87	1		06/18/12 11:20	541-73-1	
1,4-Dichlorobenzene	<0.95 ug/L		1.0	0.95	1		06/18/12 11:20	106-46-7	
Dichlorodifluoromethane	<0.99 ug/L		1.0	0.99	1		06/18/12 11:20	75-71-8	
1,1-Dichloroethane	<0.75 ug/L		1.0	0.75	1		06/18/12 11:20	75-34-3	
1,2-Dichloroethane	<0.36 ug/L		1.0	0.36	1		06/18/12 11:20	107-06-2	
1,1-Dichloroethene	<0.57 ug/L		1.0	0.57	1		06/18/12 11:20	75-35-4	
cis-1,2-Dichloroethene	<0.83 ug/L		1.0	0.83	1		06/18/12 11:20	156-59-2	
trans-1,2-Dichloroethene	<0.89 ug/L		1.0	0.89	1		06/18/12 11:20	156-60-5	
1,2-Dichloropropane	<0.49 ug/L		1.0	0.49	1		06/18/12 11:20	78-87-5	
1,3-Dichloropropane	<0.61 ug/L		1.0	0.61	1		06/18/12 11:20	142-28-9	
2,2-Dichloropropane	<0.62 ug/L		1.0	0.62	1		06/18/12 11:20	594-20-7	
1,1-Dichloropropene	<0.75 ug/L		1.0	0.75	1		06/18/12 11:20	563-58-6	
cis-1,3-Dichloropropene	<0.20 ug/L		1.0	0.20	1		06/18/12 11:20	10061-01-5	
trans-1,3-Dichloropropene	<0.19 ug/L		1.0	0.19	1		06/18/12 11:20	10061-02-6	
Diisopropyl ether	<0.76 ug/L		1.0	0.76	1		06/18/12 11:20	108-20-3	
Ethylbenzene	<0.54 ug/L		1.0	0.54	1		06/18/12 11:20	100-41-4	
Hexachloro-1,3-butadiene	<0.67 ug/L		5.0	0.67	1		06/18/12 11:20	87-68-3	
Isopropylbenzene (Cumene)	<0.59 ug/L		1.0	0.59	1		06/18/12 11:20	98-82-8	
p-Isopropyltoluene	<0.67 ug/L		1.0	0.67	1		06/18/12 11:20	99-87-6	
Methylene Chloride	1.2 ug/L		1.0	0.43	1		06/18/12 11:20	75-09-2	
Methyl-tert-butyl ether	<0.61 ug/L		1.0	0.61	1		06/18/12 11:20	1634-04-4	
Naphthalene	<0.89 ug/L		5.0	0.89	1		06/18/12 11:20	91-20-3	
n-Propylbenzene	<0.81 ug/L		1.0	0.81	1		06/18/12 11:20	103-65-1	
Styrene	<0.86 ug/L		1.0	0.86	1		06/18/12 11:20	100-42-5	
1,1,1,2-Tetrachloroethane	<0.92 ug/L		1.0	0.92	1		06/18/12 11:20	630-20-6	

ANALYTICAL RESULTS

Project: 05-529 KLINKE-FOX RUN

Pace Project No.: 4061923

Sample: TRIP BLANK Lab ID: 4061923011 Collected: 06/12/12 00:00 Received: 06/15/12 09:50 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.20	ug/L	1.0	0.20	1		06/18/12 11:20	79-34-5	
Tetrachloroethene	<0.45	ug/L	1.0	0.45	1		06/18/12 11:20	127-18-4	
Toluene	<0.67	ug/L	1.0	0.67	1		06/18/12 11:20	108-88-3	
1,2,3-Trichlorobenzene	<0.74	ug/L	1.0	0.74	1		06/18/12 11:20	87-61-6	
1,2,4-Trichlorobenzene	<0.97	ug/L	5.0	0.97	1		06/18/12 11:20	120-82-1	
1,1,1-Trichloroethane	<0.90	ug/L	1.0	0.90	1		06/18/12 11:20	71-55-6	
1,1,2-Trichloroethane	<0.42	ug/L	1.0	0.42	1		06/18/12 11:20	79-00-5	
Trichloroethene	<0.48	ug/L	1.0	0.48	1		06/18/12 11:20	79-01-6	
Trichlorofluoromethane	<0.79	ug/L	1.0	0.79	1		06/18/12 11:20	75-69-4	
1,2,3-Trichloropropane	<0.99	ug/L	1.0	0.99	1		06/18/12 11:20	96-18-4	
1,2,4-Trimethylbenzene	<0.97	ug/L	1.0	0.97	1		06/18/12 11:20	95-63-6	
1,3,5-Trimethylbenzene	<0.83	ug/L	1.0	0.83	1		06/18/12 11:20	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		06/18/12 11:20	75-01-4	
m&p-Xylene	<1.8	ug/L	2.0	1.8	1		06/18/12 11:20	179601-23-1	
o-Xylene	<0.83	ug/L	1.0	0.83	1		06/18/12 11:20	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93 %		70-130		1		06/18/12 11:20	460-00-4	
Dibromofluoromethane (S)	86 %		70-130		1		06/18/12 11:20	1868-53-7	
Toluene-d8 (S)	98 %		70-130		1		06/18/12 11:20	2037-26-5	

QUALITY CONTROL DATA

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

QC Batch: MSV/15562 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 4061923001, 4061923002, 4061923003, 4061923004, 4061923005, 4061923006, 4061923007, 4061923008, 4061923009, 4061923010, 4061923011

METHOD BLANK: 622414 Matrix: Water
Associated Lab Samples: 4061923001, 4061923002, 4061923003, 4061923004, 4061923005, 4061923006, 4061923007, 4061923008, 4061923009, 4061923010, 4061923011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.92	1.0	06/18/12 08:17	
1,1,1-Trichloroethane	ug/L	<0.90	1.0	06/18/12 08:17	
1,1,2,2-Tetrachloroethane	ug/L	<0.20	1.0	06/18/12 08:17	
1,1,2-Trichloroethane	ug/L	<0.42	1.0	06/18/12 08:17	
1,1-Dichloroethane	ug/L	<0.75	1.0	06/18/12 08:17	
1,1-Dichloroethene	ug/L	<0.57	1.0	06/18/12 08:17	
1,1-Dichloropropene	ug/L	<0.75	1.0	06/18/12 08:17	
1,2,3-Trichlorobenzene	ug/L	<0.74	1.0	06/18/12 08:17	
1,2,3-Trichloropropane	ug/L	<0.99	1.0	06/18/12 08:17	
1,2,4-Trichlorobenzene	ug/L	<0.97	5.0	06/18/12 08:17	
1,2,4-Trimethylbenzene	ug/L	<0.97	1.0	06/18/12 08:17	
1,2-Dibromo-3-chloropropane	ug/L	<1.7	5.0	06/18/12 08:17	
1,2-Dibromoethane (EDB)	ug/L	<0.56	1.0	06/18/12 08:17	
1,2-Dichlorobenzene	ug/L	<0.83	1.0	06/18/12 08:17	
1,2-Dichloroethane	ug/L	<0.36	1.0	06/18/12 08:17	
1,2-Dichloropropane	ug/L	<0.49	1.0	06/18/12 08:17	
1,3,5-Trimethylbenzene	ug/L	<0.83	1.0	06/18/12 08:17	
1,3-Dichlorobenzene	ug/L	<0.87	1.0	06/18/12 08:17	
1,3-Dichloropropane	ug/L	<0.61	1.0	06/18/12 08:17	
1,4-Dichlorobenzene	ug/L	<0.95	1.0	06/18/12 08:17	
2,2-Dichloropropane	ug/L	<0.62	1.0	06/18/12 08:17	
2-Chlorotoluene	ug/L	<0.85	1.0	06/18/12 08:17	
4-Chlorotoluene	ug/L	<0.74	1.0	06/18/12 08:17	
Benzene	ug/L	<0.41	1.0	06/18/12 08:17	
Bromobenzene	ug/L	<0.82	1.0	06/18/12 08:17	
Bromochloromethane	ug/L	<0.97	1.0	06/18/12 08:17	
Bromodichloromethane	ug/L	<0.56	1.0	06/18/12 08:17	
Bromoform	ug/L	<0.94	1.0	06/18/12 08:17	
Bromomethane	ug/L	<0.91	1.0	06/18/12 08:17	
Carbon tetrachloride	ug/L	<0.49	1.0	06/18/12 08:17	
Chlorobenzene	ug/L	<0.41	1.0	06/18/12 08:17	
Chloroethane	ug/L	<0.97	1.0	06/18/12 08:17	
Chloroform	ug/L	<1.3	5.0	06/18/12 08:17	
Chloromethane	ug/L	<0.24	1.0	06/18/12 08:17	
cis-1,2-Dichloroethene	ug/L	<0.83	1.0	06/18/12 08:17	
cis-1,3-Dichloropropene	ug/L	<0.20	1.0	06/18/12 08:17	
Dibromochloromethane	ug/L	<0.81	1.0	06/18/12 08:17	
Dibromomethane	ug/L	<0.60	1.0	06/18/12 08:17	
Dichlorodifluoromethane	ug/L	<0.99	1.0	06/18/12 08:17	
Diisopropyl ether	ug/L	<0.76	1.0	06/18/12 08:17	
Ethylbenzene	ug/L	<0.54	1.0	06/18/12 08:17	

QUALITY CONTROL DATA

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

METHOD BLANK: 622414

Matrix: Water

Associated Lab Samples: 4061923001, 4061923002, 4061923003, 4061923004, 4061923005, 4061923006, 4061923007, 4061923008, 4061923009, 4061923010, 4061923011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<0.67	5.0	06/18/12 08:17	
Isopropylbenzene (Cumene)	ug/L	<0.59	1.0	06/18/12 08:17	
m&p-Xylene	ug/L	<1.8	2.0	06/18/12 08:17	
Methyl-tert-butyl ether	ug/L	<0.61	1.0	06/18/12 08:17	
Methylene Chloride	ug/L	<0.43	1.0	06/18/12 08:17	
n-Butylbenzene	ug/L	<0.93	1.0	06/18/12 08:17	
n-Propylbenzene	ug/L	<0.81	1.0	06/18/12 08:17	
Naphthalene	ug/L	<0.89	5.0	06/18/12 08:17	
o-Xylene	ug/L	<0.83	1.0	06/18/12 08:17	
p-Isopropyltoluene	ug/L	<0.67	1.0	06/18/12 08:17	
sec-Butylbenzene	ug/L	<0.89	5.0	06/18/12 08:17	
Styrene	ug/L	<0.86	1.0	06/18/12 08:17	
tert-Butylbenzene	ug/L	<0.97	1.0	06/18/12 08:17	
Tetrachloroethene	ug/L	<0.45	1.0	06/18/12 08:17	
Toluene	ug/L	<0.67	1.0	06/18/12 08:17	
trans-1,2-Dichloroethene	ug/L	<0.89	1.0	06/18/12 08:17	
trans-1,3-Dichloropropene	ug/L	<0.19	1.0	06/18/12 08:17	
Trichloroethene	ug/L	<0.48	1.0	06/18/12 08:17	
Trichlorofluoromethane	ug/L	<0.79	1.0	06/18/12 08:17	
Vinyl chloride	ug/L	<0.18	1.0	06/18/12 08:17	
4-Bromofluorobenzene (S)	%	93	70-130	06/18/12 08:17	
Dibromofluoromethane (S)	%	87	70-130	06/18/12 08:17	
Toluene-d8 (S)	%	97	70-130	06/18/12 08:17	

LABORATORY CONTROL SAMPLE & LCSD: 622415

622416

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	49.3	49.7	99	99	70-133	1	20	
1,1,2,2-Tetrachloroethane	ug/L	50	49.7	49.0	99	98	70-130	1	20	
1,1,2-Trichloroethane	ug/L	50	52.7	53.4	105	107	70-130	1	20	
1,1-Dichloroethane	ug/L	50	46.4	47.3	93	95	70-130	2	20	
1,1-Dichloroethene	ug/L	50	47.7	48.0	95	96	70-130	1	20	
1,2,4-Trichlorobenzene	ug/L	50	53.7	53.0	107	106	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	50	46.0	47.2	92	94	50-150	3	20	
1,2-Dibromoethane (EDB)	ug/L	50	53.1	53.4	106	107	70-130	1	20	
1,2-Dichlorobenzene	ug/L	50	52.8	52.5	106	105	70-130	1	20	
1,2-Dichloroethane	ug/L	50	46.7	46.7	93	93	70-145	0	20	
1,2-Dichloropropane	ug/L	50	47.8	48.3	96	97	70-130	1	20	
1,3-Dichlorobenzene	ug/L	50	51.3	51.4	103	103	70-130	0	20	
1,4-Dichlorobenzene	ug/L	50	50.5	50.4	101	101	70-130	0	20	
Benzene	ug/L	50	45.5	46.0	91	92	70-130	1	20	
Bromodichloromethane	ug/L	50	49.1	49.6	98	99	70-130	1	20	
Bromoform	ug/L	50	54.4	56.1	109	112	70-130	3	20	
Bromomethane	ug/L	50	36.6	39.9	73	80	52-155	9	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

LABORATORY CONTROL SAMPLE & LCSD:		622415		622416							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers	
Carbon tetrachloride	ug/L	50	49.6	50.2	99	100	70-153	1	20		
Chlorobenzene	ug/L	50	53.2	53.3	106	107	70-130	0	20		
Chloroethane	ug/L	50	44.1	45.5	88	91	70-130	3	20		
Chloroform	ug/L	50	48.7	49.2	97	98	70-130	1	20		
Chloromethane	ug/L	50	41.1	42.7	82	85	50-130	4	20		
cis-1,2-Dichloroethene	ug/L	50	46.2	46.4	92	93	70-130	0	20		
cis-1,3-Dichloropropene	ug/L	50	49.6	50.5	99	101	70-130	2	20		
Dibromochloromethane	ug/L	50	57.7	57.8	115	116	70-130	0	20		
Dichlorodifluoromethane	ug/L	50	34.8	35.8	70	72	50-150	3	20		
Ethylbenzene	ug/L	50	54.2	54.3	108	109	70-130	0	20		
Isopropylbenzene (Cumene)	ug/L	50	55.5	56.0	111	112	70-130	1	20		
m&p-Xylene	ug/L	100	109	109	109	109	70-130	0	20		
Methyl-tert-butyl ether	ug/L	50	44.6	45.3	89	91	70-130	2	20		
Methylene Chloride	ug/L	50	44.3	44.9	89	90	70-130	1	20		
o-Xylene	ug/L	50	55.1	55.4	110	111	70-130	1	20		
Styrene	ug/L	50	55.4	56.4	111	113	70-130	2	20		
Tetrachloroethene	ug/L	50	52.1	52.8	104	106	70-130	1	20		
Toluene	ug/L	50	54.4	54.7	109	109	70-130	1	20		
trans-1,2-Dichloroethene	ug/L	50	48.0	48.6	96	97	70-130	1	20		
trans-1,3-Dichloropropene	ug/L	50	50.8	51.6	102	103	70-130	1	20		
Trichloroethene	ug/L	50	49.4	49.9	99	100	70-130	1	20		
Trichlorofluoromethane	ug/L	50	47.5	47.9	95	96	50-150	1	20		
Vinyl chloride	ug/L	50	41.3	42.2	83	84	66-130	2	20		
4-Bromofluorobenzene (S)	%				101	102	70-130				
Dibromofluoromethane (S)	%				86	87	70-130				
Toluene-d8 (S)	%				99	99	70-130				

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		622573		622574								
Parameter	Units	4061923008		MS Spike	MSD Spike	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		Result	Conc.	Conc.	Conc.	Result	Result	% Rec	% Rec	RPD	RPD	
1,1,1-Trichloroethane	ug/L	<0.90	50	50	50	52.1	52.5	104	105	70-133	1	20
1,1,2,2-Tetrachloroethane	ug/L	<0.20	50	50	50	49.5	55.1	99	110	70-130	11	20
1,1,2-Trichloroethane	ug/L	<0.42	50	50	50	52.8	54.5	106	109	70-130	3	20
1,1-Dichloroethane	ug/L	<0.75	50	50	50	49.3	48.9	99	98	70-133	1	20
1,1-Dichloroethene	ug/L	<0.57	50	50	50	51.1	50.6	102	101	70-130	1	20
1,2,4-Trichlorobenzene	ug/L	<0.97	50	50	50	55.4	55.5	111	111	70-130	0	20
1,2-Dibromo-3-chloropropane	ug/L	<1.7	50	50	50	44.1	49.5	88	99	50-150	11	20
1,2-Dibromoethane (EDB)	ug/L	<0.56	50	50	50	54.0	55.6	108	111	70-130	3	20
1,2-Dichlorobenzene	ug/L	<0.83	50	50	50	53.6	54.8	107	110	70-130	2	20
1,2-Dichloroethane	ug/L	<0.36	50	50	50	47.7	48.6	95	97	70-145	2	20
1,2-Dichloropropene	ug/L	<0.49	50	50	50	49.7	50.9	99	102	70-130	2	20
1,3-Dichlorobenzene	ug/L	<0.87	50	50	50	52.5	52.9	105	105	70-130	1	20
1,4-Dichlorobenzene	ug/L	<0.95	50	50	50	52.2	53.1	104	106	70-130	2	20
Benzene	ug/L	<0.41	50	50	50	47.6	47.6	95	95	70-130	0	20
Bromodichloromethane	ug/L	<0.56	50	50	50	51.9	50.8	104	102	70-130	2	20
Bromoform	ug/L	<0.94	50	50	50	53.3	55.3	107	111	70-130	4	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 05-529 KLINKE-FOX RUN

Pace Project No.: 4061923

Parameter	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 622573			622574			MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
	Units	4061923008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
Bromomethane	ug/L	<0.91	50	50	42.7	42.8	84	84	52-155	0	20
Carbon tetrachloride	ug/L	<0.49	50	50	53.7	52.8	107	106	70-158	2	20
Chlorobenzene	ug/L	<0.41	50	50	54.5	54.1	109	108	70-130	1	20
Chloroethane	ug/L	<0.97	50	50	48.6	47.1	97	94	70-130	3	20
Chloroform	ug/L	<1.3	50	50	51.0	50.7	102	101	70-130	1	20
Chloromethane	ug/L	<0.24	50	50	43.3	43.0	87	86	46-130	1	20
cis-1,2-Dichloroethene	ug/L	<0.83	50	50	48.3	47.9	97	96	70-130	1	20
cis-1,3-Dichloropropene	ug/L	<0.20	50	50	52.4	53.0	105	106	70-130	1	20
Dibromochloromethane	ug/L	<0.81	50	50	58.3	59.1	117	118	70-130	1	20
Dichlorodifluoromethane	ug/L	<0.99	50	50	36.1	36.0	72	72	50-150	0	20
Ethylbenzene	ug/L	<0.54	50	50	56.3	56.3	113	113	70-130	0	20
Isopropylbenzene (Cumene)	ug/L	<0.59	50	50	58.0	57.5	116	115	70-130	1	20
m&p-Xylene	ug/L	<1.8	100	100	115	112	115	112	70-130	2	20
Methyl-tert-butyl ether	ug/L	<0.61	50	50	44.5	46.5	89	93	70-130	4	20
Methylene Chloride	ug/L	<0.43	50	50	47.0	46.4	94	93	70-130	1	20
o-Xylene	ug/L	<0.83	50	50	57.4	56.2	115	112	70-130	2	20
Styrene	ug/L	<0.86	50	50	57.3	56.3	115	113	19-157	2	20
Tetrachloroethene	ug/L	<0.45	50	50	56.1	55.1	112	110	70-130	2	20
Toluene	ug/L	<0.67	50	50	56.2	56.4	112	112	70-130	0	20
trans-1,2-Dichloroethene	ug/L	<0.89	50	50	51.3	49.1	103	98	70-130	4	20
trans-1,3-Dichloropropene	ug/L	<0.19	50	50	51.8	52.8	104	106	70-130	2	20
Trichloroethene	ug/L	<0.48	50	50	51.7	50.6	103	101	70-130	2	20
Trichlorofluoromethane	ug/L	<0.79	50	50	51.9	51.3	104	103	50-150	1	20
Vinyl chloride	ug/L	<0.18	50	50	43.6	44.9	87	90	62-130	3	20
4-Bromofluorobenzene (S)	%						101	101	70-130		
Dibromofluoromethane (S)	%						87	88	70-130		
Toluene-d8 (S)	%						99	99	70-130		

QUALIFIERS

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 05-529 KLINKE-FOX RUN
Pace Project No.: 4061923

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4061923001	MW-1	EPA 8260	MSV/15562		
4061923002	MW-2	EPA 8260	MSV/15562		
4061923003	MW-4	EPA 8260	MSV/15562		
4061923004	MW-5	EPA 8260	MSV/15562		
4061923005	P-5	EPA 8260	MSV/15562		
4061923006	MW-6	EPA 8260	MSV/15562		
4061923007	MW-7	EPA 8260	MSV/15562		
4061923008	MW-8	EPA 8260	MSV/15562		
4061923009	MW-9	EPA 8260	MSV/15562		
4061923010	QC-1	EPA 8260	MSV/15562		
4061923011	TRIP BLANK	EPA 8260	MSV/15562		



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

December 07, 2012

Ms. Paula Richardson
Saga Env. & Engineering
110 East Lake Street
Lake Mills, WI 53551

RE: Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Dear Ms. Richardson:

Enclosed are the analytical results for sample(s) received by the laboratory on November 20, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Scott Unze for
Carolynne Trout
carolynne.trout@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: Pace
Florida/NELAP Certification #: E87605
Georgia Certification #: 959
Hawaii Certification #Pace
Idaho Certification #: MN00064
Illinois Certification #: 200011
Kansas Certification #: E-10167
Louisiana Certification #: 03086
Louisiana Certification #: LA080009
Maine Certification #: 2007029
Maryland Certification #: 322
Michigan DEQ Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace

Montana Certification #: MT CERT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
North Dakota Certification #: R-036A
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Tennessee Certification #: 02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Virginia/DCLS Certification #: 002521
Virginia/VELAP Certification #: 460163
Washington Certification #: C754
West Virginia Certification #: 382
Wisconsin Certification #: 999407970

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10213050001	VP-1	Air	11/14/12 09:45	11/20/12 09:51
10213050002	VP-6	Air	11/14/12 11:00	11/20/12 09:51
10213050003	VP-2	Air	11/14/12 02:45	11/20/12 09:51
10213050004	VP-3	Air	11/14/12 01:35	11/20/12 09:51
10213050005	VP-4	Air	11/14/12 03:45	11/20/12 09:51
10213050006	VP-5	Air	11/14/12 12:00	11/20/12 09:51

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10213050001	VP-1	TO-15	CJR	61
10213050002	VP-6	TO-15	CJR	61
10213050003	VP-2	TO-15	CJR, DR1	61
10213050004	VP-3	TO-15	CJR	61
10213050005	VP-4	TO-15	CJR	61
10213050006	VP-5	TO-15	CJR	61

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ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Sample: VP-1		Lab ID: 10213050001	Collected: 11/14/12 09:45	Received: 11/20/12 09:51	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
TO15 MSV AIR		Analytical Method: TO-15							
Acetone	17.8 ug/m3		0.74	1.55		12/06/12 03:56	67-64-1		
Benzene	ND ug/m3		0.50	1.55		12/06/12 03:56	71-43-2		
Benzyl chloride	ND ug/m3		1.6	1.55		12/06/12 03:56	100-44-7		
Bromodichloromethane	ND ug/m3		2.1	1.55		12/06/12 03:56	75-27-4		
Bromoform	ND ug/m3		3.3	1.55		12/06/12 03:56	75-25-2		
Bromomethane	ND ug/m3		1.2	1.55		12/06/12 03:56	74-83-9		
1,3-Butadiene	ND ug/m3		0.70	1.55		12/06/12 03:56	106-99-0		
2-Butanone (MEK)	3.4 ug/m3		0.93	1.55		12/06/12 03:56	78-93-3		
Carbon disulfide	4.9 ug/m3		0.98	1.55		12/06/12 03:56	75-15-0	SS	
Carbon tetrachloride	ND ug/m3		0.99	1.55		12/06/12 03:56	56-23-5		
Chlorobenzene	ND ug/m3		1.5	1.55		12/06/12 03:56	108-90-7		
Chloroethane	ND ug/m3		0.84	1.55		12/06/12 03:56	75-00-3		
Chloroform	ND ug/m3		1.5	1.55		12/06/12 03:56	67-66-3		
Chloromethane	ND ug/m3		0.65	1.55		12/06/12 03:56	74-87-3		
Cyclohexane	ND ug/m3		1.1	1.55		12/06/12 03:56	110-82-7		
Dibromochloromethane	ND ug/m3		2.7	1.55		12/06/12 03:56	124-48-1		
1,2-Dibromoethane (EDB)	ND ug/m3		2.4	1.55		12/06/12 03:56	106-93-4		
1,2-Dichlorobenzene	ND ug/m3		1.9	1.55		12/06/12 03:56	95-50-1		
1,3-Dichlorobenzene	ND ug/m3		1.9	1.55		12/06/12 03:56	541-73-1		
1,4-Dichlorobenzene	ND ug/m3		1.9	1.55		12/06/12 03:56	106-46-7		
Dichlorodifluoromethane	20.5 ug/m3		1.6	1.55		12/06/12 03:56	75-71-8		
1,1-Dichloroethane	ND ug/m3		1.3	1.55		12/06/12 03:56	75-34-3		
1,2-Dichloroethane	ND ug/m3		0.64	1.55		12/06/12 03:56	107-06-2		
1,1-Dichloroethene	ND ug/m3		1.3	1.55		12/06/12 03:56	75-35-4		
cis-1,2-Dichloroethene	ND ug/m3		1.3	1.55		12/06/12 03:56	156-59-2		
trans-1,2-Dichloroethene	ND ug/m3		1.3	1.55		12/06/12 03:56	156-60-5		
1,2-Dichloropropane	ND ug/m3		1.5	1.55		12/06/12 03:56	78-87-5		
cis-1,3-Dichloropropene	ND ug/m3		1.4	1.55		12/06/12 03:56	10061-01-5		
trans-1,3-Dichloropropene	ND ug/m3		1.4	1.55		12/06/12 03:56	10061-02-6		
Dichlorotetrafluoroethane	ND ug/m3		2.2	1.55		12/06/12 03:56	76-14-2		
Ethanol	26.8 ug/m3		0.59	1.55		12/06/12 03:56	64-17-5		
Ethyl acetate	ND ug/m3		1.1	1.55		12/06/12 03:56	141-78-6		
Ethylbenzene	ND ug/m3		1.4	1.55		12/06/12 03:56	100-41-4		
4-Ethyltoluene	ND ug/m3		1.6	1.55		12/06/12 03:56	622-96-8		
n-Heptane	ND ug/m3		1.3	1.55		12/06/12 03:56	142-82-5		
Hexachloro-1,3-butadiene	ND ug/m3		3.4	1.55		12/06/12 03:56	87-68-3		
n-Hexane	8.6 ug/m3		1.1	1.55		12/06/12 03:56	110-54-3		
2-Hexanone	ND ug/m3		1.3	1.55		12/06/12 03:56	591-78-6		
Methylene Chloride	45.5 ug/m3		1.1	1.55		12/06/12 03:56	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/m3		1.3	1.55		12/06/12 03:56	108-10-1		
Methyl-tert-butyl ether	ND ug/m3		1.1	1.55		12/06/12 03:56	1634-04-4		
Naphthalene	3.0 ug/m3		1.7	1.55		12/06/12 03:56	91-20-3	SS	
2-Propanol	8.2 ug/m3		0.78	1.55		12/06/12 03:56	67-63-0		
Propylene	ND ug/m3		0.54	1.55		12/06/12 03:56	115-07-1		
Styrene	1.6 ug/m3		1.3	1.55		12/06/12 03:56	100-42-5		
1,1,1,2-Tetrachloroethane	ND ug/m3		1.1	1.55		12/06/12 03:56	79-34-5		
Tetrachloroethene	51800 ug/m3		1830	2658.56		12/07/12 08:16	127-18-4	A3	

Date: 12/07/2012 04:11 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run

Pace Project No.: 10213050

Sample: VP-1		Lab ID: 10213050001	Collected: 11/14/12 09:45	Received: 11/20/12 09:51	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15						
Tetrahydrofuran	ND	ug/m3	0.93	1.55		12/06/12 03:56	109-99-9	
Toluene	8.8	ug/m3	1.2	1.55		12/06/12 03:56	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.3	1.55		12/06/12 03:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.55		12/06/12 03:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.85	1.55		12/06/12 03:56	79-00-5	
Trichloroethene	5.3	ug/m3	0.85	1.55		12/06/12 03:56	79-01-6	
Trichlorofluoromethane	34.9	ug/m3	1.8	1.55		12/06/12 03:56	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.5	1.55		12/06/12 03:56	76-13-1	
1,2,4-Trimethylbenzene	2.8	ug/m3	1.5	1.55		12/06/12 03:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.5	1.55		12/06/12 03:56	108-67-8	
Vinyl acetate	ND	ug/m3	1.1	1.55		12/06/12 03:56	108-05-4	
Vinyl chloride	ND	ug/m3	0.40	1.55		12/06/12 03:56	75-01-4	
m&p-Xylene	ND	ug/m3	2.7	1.55		12/06/12 03:56	179601-23-1	
o-Xylene	ND	ug/m3	1.4	1.55		12/06/12 03:56	95-47-6	

ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Sample:	Lab ID:	Collected:	Received:	Matrix:										
VP-6	10213050002	11/14/12 11:00	11/20/12 09:51	Air	Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
TO15 MSV AIR		Analytical Method: TO-15												
Acetone	9.6	ug/m3	0.64	1.34							12/06/12 04:54	67-64-1		
Benzene	0.97	ug/m3	0.44	1.34							12/06/12 04:54	71-43-2		
Benzyl chloride	ND	ug/m3	1.4	1.34							12/06/12 04:54	100-44-7		
Bromodichloromethane	ND	ug/m3	1.8	1.34							12/06/12 04:54	75-27-4		
Bromoform	ND	ug/m3	2.8	1.34							12/06/12 04:54	75-25-2		
Bromomethane	ND	ug/m3	1.1	1.34							12/06/12 04:54	74-83-9		
1,3-Butadiene	ND	ug/m3	0.60	1.34							12/06/12 04:54	106-99-0		
2-Butanone (MEK)	1.8	ug/m3	0.80	1.34							12/06/12 04:54	78-93-3		
Carbon disulfide	ND	ug/m3	0.84	1.34							12/06/12 04:54	75-15-0		
Carbon tetrachloride	ND	ug/m3	0.86	1.34							12/06/12 04:54	56-23-5		
Chlorobenzene	ND	ug/m3	1.3	1.34							12/06/12 04:54	108-90-7		
Chloroethane	ND	ug/m3	0.72	1.34							12/06/12 04:54	75-00-3		
Chloroform	5.0	ug/m3	1.3	1.34							12/06/12 04:54	67-66-3		
Chloromethane	0.57	ug/m3	0.56	1.34							12/06/12 04:54	74-87-3		
Cyclohexane	ND	ug/m3	0.94	1.34							12/06/12 04:54	110-82-7		
Dibromochloromethane	ND	ug/m3	2.3	1.34							12/06/12 04:54	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/m3	2.1	1.34							12/06/12 04:54	106-93-4		
1,2-Dichlorobenzene	ND	ug/m3	1.6	1.34							12/06/12 04:54	95-50-1		
1,3-Dichlorobenzene	ND	ug/m3	1.6	1.34							12/06/12 04:54	541-73-1		
1,4-Dichlorobenzene	ND	ug/m3	1.6	1.34							12/06/12 04:54	106-46-7		
Dichlorodifluoromethane	4.2	ug/m3	1.4	1.34							12/06/12 04:54	75-71-8		
1,1-Dichloroethane	ND	ug/m3	1.1	1.34							12/06/12 04:54	75-34-3		
1,2-Dichloroethane	ND	ug/m3	0.55	1.34							12/06/12 04:54	107-06-2		
1,1-Dichloroethene	ND	ug/m3	1.1	1.34							12/06/12 04:54	75-35-4		
cis-1,2-Dichloroethene	ND	ug/m3	1.1	1.34							12/06/12 04:54	156-59-2		
trans-1,2-Dichloroethene	3.1	ug/m3	1.1	1.34							12/06/12 04:54	156-60-5		
1,2-Dichloropropane	ND	ug/m3	1.3	1.34							12/06/12 04:54	78-87-5		
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.34							12/06/12 04:54	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.34							12/06/12 04:54	10061-02-6		
Dichlorotetrafluoroethane	ND	ug/m3	1.9	1.34							12/06/12 04:54	76-14-2		
Ethanol	20.0	ug/m3	0.51	1.34							12/06/12 04:54	64-17-5		
Ethyl acetate	ND	ug/m3	0.98	1.34							12/06/12 04:54	141-78-6		
Ethylbenzene	ND	ug/m3	1.2	1.34							12/06/12 04:54	100-41-4		
4-Ethyltoluene	ND	ug/m3	1.3	1.34							12/06/12 04:54	622-96-8		
n-Heptane	ND	ug/m3	1.1	1.34							12/06/12 04:54	142-82-5		
Hexachloro-1,3-butadiene	ND	ug/m3	2.9	1.34							12/06/12 04:54	87-68-3		
n-Hexane	1.4	ug/m3	0.96	1.34							12/06/12 04:54	110-54-3		
2-Hexanone	ND	ug/m3	1.1	1.34							12/06/12 04:54	591-78-6		
Methylene Chloride	ND	ug/m3	0.95	1.34							12/06/12 04:54	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.1	1.34							12/06/12 04:54	108-10-1		
Methyl-tert-butyl ether	ND	ug/m3	0.98	1.34							12/06/12 04:54	1634-04-4		
Naphthalene	2.2	ug/m3	1.4	1.34							12/06/12 04:54	91-20-3	SS	
2-Propanol	1.7	ug/m3	0.67	1.34							12/06/12 04:54	67-63-0		
Propylene	ND	ug/m3	0.47	1.34							12/06/12 04:54	115-07-1		
Styrene	ND	ug/m3	1.2	1.34							12/06/12 04:54	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/m3	0.94	1.34							12/06/12 04:54	79-34-5		
Tetrachloroethene	171000	ug/m3	3170	4596.74							12/07/12 10:12	127-18-4	A3	

ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run

Pace Project No.: 10213050

Sample: VP-6		Lab ID: 10213050002	Collected: 11/14/12 11:00	Received: 11/20/12 09:51	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15						
Tetrahydrofuran	ND	ug/m3	0.80	1.34		12/06/12 04:54	109-99-9	
Toluene	3.4	ug/m3	1.0	1.34		12/06/12 04:54	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.0	1.34		12/06/12 04:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.5	1.34		12/06/12 04:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.74	1.34		12/06/12 04:54	79-00-5	
Trichloroethene	265	ug/m3	0.74	1.34		12/06/12 04:54	79-01-6	E
Trichlorofluoromethane	7.9	ug/m3	1.5	1.34		12/06/12 04:54	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.1	1.34		12/06/12 04:54	76-13-1	
1,2,4-Trimethylbenzene	2.3	ug/m3	1.3	1.34		12/06/12 04:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.34		12/06/12 04:54	108-67-8	
Vinyl acetate	ND	ug/m3	0.96	1.34		12/06/12 04:54	108-05-4	
Vinyl chloride	ND	ug/m3	0.35	1.34		12/06/12 04:54	75-01-4	
m&p-Xylene	ND	ug/m3	2.4	1.34		12/06/12 04:54	179601-23-1	
o-Xylene	ND	ug/m3	1.2	1.34		12/06/12 04:54	95-47-6	

ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Sample: VP-2		Lab ID: 10213050003	Collected: 11/14/12 02:45	Received: 11/20/12 09:51	Matrix: Air				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
TO15 MSV AIR		Analytical Method: TO-15							
Acetone	ND	ug/m3	14.9	31		12/06/12 10:56	67-64-1		
Benzene	ND	ug/m3	10.1	31		12/06/12 10:56	71-43-2		
Benzyl chloride	ND	ug/m3	32.6	31		12/06/12 10:56	100-44-7		
Bromodichloromethane	ND	ug/m3	42.2	31		12/06/12 10:56	75-27-4		
Bromoform	ND	ug/m3	65.1	31		12/06/12 10:56	75-25-2		
Bromomethane	ND	ug/m3	24.5	31		12/06/12 10:56	74-83-9		
1,3-Butadiene	ND	ug/m3	14.0	31		12/06/12 10:56	106-99-0		
2-Butanone (MEK)	ND	ug/m3	18.6	31		12/06/12 10:56	78-93-3		
Carbon disulfide	ND	ug/m3	19.5	31		12/06/12 10:56	75-15-0		
Carbon tetrachloride	ND	ug/m3	19.8	31		12/06/12 10:56	56-23-5		
Chlorobenzene	ND	ug/m3	29.1	31		12/06/12 10:56	108-90-7		
Chloroethane	ND	ug/m3	16.7	31		12/06/12 10:56	75-00-3		
Chloroform	ND	ug/m3	30.7	31		12/06/12 10:56	67-66-3		
Chloromethane	ND	ug/m3	13.0	31		12/06/12 10:56	74-87-3		
Cyclohexane	ND	ug/m3	21.7	31		12/06/12 10:56	110-82-7		
Dibromochloromethane	ND	ug/m3	53.6	31		12/06/12 10:56	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/m3	48.4	31		12/06/12 10:56	106-93-4		
1,2-Dichlorobenzene	ND	ug/m3	37.8	31		12/06/12 10:56	95-50-1		
1,3-Dichlorobenzene	ND	ug/m3	37.8	31		12/06/12 10:56	541-73-1		
1,4-Dichlorobenzene	ND	ug/m3	37.8	31		12/06/12 10:56	106-46-7		
Dichlorodifluoromethane	ND	ug/m3	31.3	31		12/06/12 10:56	75-71-8		
1,1-Dichloroethane	ND	ug/m3	25.4	31		12/06/12 10:56	75-34-3		
1,2-Dichloroethane	ND	ug/m3	12.7	31		12/06/12 10:56	107-06-2		
1,1-Dichloroethene	ND	ug/m3	25.1	31		12/06/12 10:56	75-35-4		
cis-1,2-Dichloroethene	ND	ug/m3	25.1	31		12/06/12 10:56	156-59-2		
trans-1,2-Dichloroethene	ND	ug/m3	25.1	31		12/06/12 10:56	156-60-5		
1,2-Dichloropropane	ND	ug/m3	29.1	31		12/06/12 10:56	78-87-5		
cis-1,3-Dichloropropene	ND	ug/m3	28.5	31		12/06/12 10:56	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/m3	28.5	31		12/06/12 10:56	10061-02-6		
Dichlorotetrafluoroethane	ND	ug/m3	44.0	31		12/06/12 10:56	76-14-2		
Ethanol	ND	ug/m3	11.8	31		12/06/12 10:56	64-17-5		
Ethyl acetate	ND	ug/m3	22.6	31		12/06/12 10:56	141-78-6		
Ethylbenzene	ND	ug/m3	27.3	31		12/06/12 10:56	100-41-4		
4-Ethyltoluene	ND	ug/m3	31.0	31		12/06/12 10:56	622-96-8		
n-Heptane	ND	ug/m3	25.7	31		12/06/12 10:56	142-82-5		
Hexachloro-1,3-butadiene	ND	ug/m3	68.2	31		12/06/12 10:56	87-68-3		
n-Hexane	ND	ug/m3	22.3	31		12/06/12 10:56	110-54-3		
2-Hexanone	ND	ug/m3	25.7	31		12/06/12 10:56	591-78-6		
Methylene Chloride	ND	ug/m3	22.0	31		12/06/12 10:56	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	25.7	31		12/06/12 10:56	108-10-1		
Methyl-tert-butyl ether	ND	ug/m3	22.6	31		12/06/12 10:56	1634-04-4		
Naphthalene	ND	ug/m3	33.2	31		12/06/12 10:56	91-20-3		
2-Propanol	ND	ug/m3	15.5	31		12/06/12 10:56	67-63-0		
Propylene	ND	ug/m3	10.8	31		12/06/12 10:56	115-07-1		
Styrene	ND	ug/m3	27.0	31		12/06/12 10:56	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/m3	21.6	31		12/06/12 10:56	79-34-5		
Tetrachloroethene	327000	ug/m3	1830	2658.56		12/07/12 01:54	127-18-4	A3	

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ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run

Pace Project No.: 10213050

Sample: VP-2		Lab ID: 10213050003	Collected: 11/14/12 02:45	Received: 11/20/12 09:51	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15						
Tetrahydrofuran	ND	ug/m3	18.6	31		12/06/12 10:56	109-99-9	
Toluene	ND	ug/m3	23.9	31		12/06/12 10:56	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	46.8	31		12/06/12 10:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	34.4	31		12/06/12 10:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	17.0	31		12/06/12 10:56	79-00-5	
Trichloroethene	167	ug/m3	17.0	31		12/06/12 10:56	79-01-6	
Trichlorofluoromethane	ND	ug/m3	35.3	31		12/06/12 10:56	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	49.6	31		12/06/12 10:56	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	31.0	31		12/06/12 10:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	31.0	31		12/06/12 10:56	108-67-8	
Vinyl acetate	ND	ug/m3	22.2	31		12/06/12 10:56	108-05-4	
Vinyl chloride	ND	ug/m3	8.1	31		12/06/12 10:56	75-01-4	
m&p-Xylene	ND	ug/m3	54.6	31		12/06/12 10:56	179601-23-1	
o-Xylene	ND	ug/m3	27.3	31		12/06/12 10:56	95-47-6	

ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Sample: VP-3		Lab ID: 10213050004	Collected: 11/14/12 01:35	Received: 11/20/12 09:51	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15						
Acetone	10.4	ug/m3	0.64	1.34		12/06/12 05:23	67-64-1	
Benzene	3.1	ug/m3	0.44	1.34		12/06/12 05:23	71-43-2	
Benzyl chloride	ND	ug/m3	1.4	1.34		12/06/12 05:23	100-44-7	
Bromodichloromethane	ND	ug/m3	1.8	1.34		12/06/12 05:23	75-27-4	
Bromoform	ND	ug/m3	2.8	1.34		12/06/12 05:23	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.34		12/06/12 05:23	74-83-9	
1,3-Butadiene	ND	ug/m3	0.60	1.34		12/06/12 05:23	106-99-0	
2-Butanone (MEK)	2.9	ug/m3	0.80	1.34		12/06/12 05:23	78-93-3	
Carbon disulfide	ND	ug/m3	0.84	1.34		12/06/12 05:23	75-15-0	
Carbon tetrachloride	1.0	ug/m3	0.86	1.34		12/06/12 05:23	56-23-5	
Chlorobenzene	2.5	ug/m3	1.3	1.34		12/06/12 05:23	108-90-7	
Chloroethane	ND	ug/m3	0.72	1.34		12/06/12 05:23	75-00-3	
Chloroform	83.3	ug/m3	1.3	1.34		12/06/12 05:23	67-66-3	
Chloromethane	ND	ug/m3	0.56	1.34		12/06/12 05:23	74-87-3	
Cyclohexane	1.9	ug/m3	0.94	1.34		12/06/12 05:23	110-82-7	
Dibromochloromethane	ND	ug/m3	2.3	1.34		12/06/12 05:23	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.1	1.34		12/06/12 05:23	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.6	1.34		12/06/12 05:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.6	1.34		12/06/12 05:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.6	1.34		12/06/12 05:23	106-46-7	
Dichlorodifluoromethane	17.2	ug/m3	1.4	1.34		12/06/12 05:23	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.1	1.34		12/06/12 05:23	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.55	1.34		12/06/12 05:23	107-06-2	
1,1-Dichloroethene	21.4	ug/m3	1.1	1.34		12/06/12 05:23	75-35-4	
cis-1,2-Dichloroethene	23.2	ug/m3	1.1	1.34		12/06/12 05:23	156-59-2	
trans-1,2-Dichloroethene	15.1	ug/m3	1.1	1.34		12/06/12 05:23	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.3	1.34		12/06/12 05:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		12/06/12 05:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		12/06/12 05:23	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.9	1.34		12/06/12 05:23	76-14-2	
Ethanol	12.7	ug/m3	0.51	1.34		12/06/12 05:23	64-17-5	
Ethyl acetate	ND	ug/m3	0.98	1.34		12/06/12 05:23	141-78-6	
Ethylbenzene	1.9	ug/m3	1.2	1.34		12/06/12 05:23	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.3	1.34		12/06/12 05:23	622-96-8	
n-Heptane	2.0	ug/m3	1.1	1.34		12/06/12 05:23	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.9	1.34		12/06/12 05:23	87-68-3	
n-Hexane	4.2	ug/m3	0.96	1.34		12/06/12 05:23	110-54-3	
2-Hexanone	ND	ug/m3	1.1	1.34		12/06/12 05:23	591-78-6	
Methylene Chloride	ND	ug/m3	0.95	1.34		12/06/12 05:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.1	1.34		12/06/12 05:23	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	0.98	1.34		12/06/12 05:23	1634-04-4	
Naphthalene	ND	ug/m3	1.4	1.34		12/06/12 05:23	91-20-3	
2-Propanol	1.2	ug/m3	0.67	1.34		12/06/12 05:23	67-63-0	
Propylene	ND	ug/m3	0.47	1.34		12/06/12 05:23	115-07-1	
Styrene	ND	ug/m3	1.2	1.34		12/06/12 05:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.94	1.34		12/06/12 05:23	79-34-5	
Tetrachloroethene	3240000	ug/m3	6330	9193.47		12/07/12 09:14	127-18-4	A3,E

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ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Sample: VP-3		Lab ID: 10213050004	Collected: 11/14/12 01:35	Received: 11/20/12 09:51	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15						
Tetrahydrofuran	ND	ug/m3	0.80	1.34		12/06/12 05:23	109-99-9	
Toluene	7.7	ug/m3	1.0	1.34		12/06/12 05:23	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.0	1.34		12/06/12 05:23	120-82-1	
1,1,1-Trichloroethane	7.5	ug/m3	1.5	1.34		12/06/12 05:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.74	1.34		12/06/12 05:23	79-00-5	
Trichloroethene	663	ug/m3	0.74	1.34		12/06/12 05:23	79-01-6	E
Trichlorofluoromethane	13.4	ug/m3	1.5	1.34		12/06/12 05:23	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.1	1.34		12/06/12 05:23	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.3	1.34		12/06/12 05:23	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.34		12/06/12 05:23	108-67-8	
Vinyl acetate	ND	ug/m3	0.96	1.34		12/06/12 05:23	108-05-4	
Vinyl chloride	ND	ug/m3	0.35	1.34		12/06/12 05:23	75-01-4	
m&p-Xylene	ND	ug/m3	2.4	1.34		12/06/12 05:23	179601-23-1	
o-Xylene	1.6	ug/m3	1.2	1.34		12/06/12 05:23	95-47-6	

ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Sample:	Lab ID:	Collected:	Received:	Matrix:									
VP-4	10213050005	11/14/12 03:45	11/20/12 09:51	Air	Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15											
Acetone	9.7	ug/m3	0.69	1.44							12/06/12 04:25	67-64-1	
Benzene	0.82	ug/m3	0.47	1.44							12/06/12 04:25	71-43-2	
Benzyl chloride	ND	ug/m3	1.5	1.44							12/06/12 04:25	100-44-7	
Bromodichloromethane	ND	ug/m3	2.0	1.44							12/06/12 04:25	75-27-4	
Bromoform	ND	ug/m3	3.0	1.44							12/06/12 04:25	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.44							12/06/12 04:25	74-83-9	
1,3-Butadiene	ND	ug/m3	0.65	1.44							12/06/12 04:25	106-99-0	
2-Butanone (MEK)	ND	ug/m3	0.86	1.44							12/06/12 04:25	78-93-3	
Carbon disulfide	ND	ug/m3	0.91	1.44							12/06/12 04:25	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.92	1.44							12/06/12 04:25	56-23-5	
Chlorobenzene	ND	ug/m3	1.4	1.44							12/06/12 04:25	108-90-7	
Chloroethane	ND	ug/m3	0.78	1.44							12/06/12 04:25	75-00-3	
Chloroform	ND	ug/m3	1.4	1.44							12/06/12 04:25	67-66-3	
Chloromethane	0.90	ug/m3	0.60	1.44							12/06/12 04:25	74-87-3	
Cyclohexane	ND	ug/m3	1.0	1.44							12/06/12 04:25	110-82-7	
Dibromochloromethane	ND	ug/m3	2.5	1.44							12/06/12 04:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.2	1.44							12/06/12 04:25	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.8	1.44							12/06/12 04:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.8	1.44							12/06/12 04:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.8	1.44							12/06/12 04:25	106-46-7	
Dichlorodifluoromethane	22.6	ug/m3	1.5	1.44							12/06/12 04:25	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.2	1.44							12/06/12 04:25	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.59	1.44							12/06/12 04:25	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.2	1.44							12/06/12 04:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.2	1.44							12/06/12 04:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.2	1.44							12/06/12 04:25	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.4	1.44							12/06/12 04:25	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.3	1.44							12/06/12 04:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.3	1.44							12/06/12 04:25	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.0	1.44							12/06/12 04:25	76-14-2	
Ethanol	22.7	ug/m3	0.55	1.44							12/06/12 04:25	64-17-5	
Ethyl acetate	ND	ug/m3	1.1	1.44							12/06/12 04:25	141-78-6	
Ethylbenzene	6.4	ug/m3	1.3	1.44							12/06/12 04:25	100-41-4	
4-Ethyltoluene	2.5	ug/m3	1.4	1.44							12/06/12 04:25	622-96-8	SS
n-Heptane	1.9	ug/m3	1.2	1.44							12/06/12 04:25	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.2	1.44							12/06/12 04:25	87-68-3	
n-Hexane	1.4	ug/m3	1.0	1.44							12/06/12 04:25	110-54-3	
2-Hexanone	ND	ug/m3	1.2	1.44							12/06/12 04:25	591-78-6	
Methylene Chloride	3.0	ug/m3	1.0	1.44							12/06/12 04:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.2	1.44							12/06/12 04:25	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.44							12/06/12 04:25	1634-04-4	
Naphthalene	2.5	ug/m3	1.5	1.44							12/06/12 04:25	91-20-3	SS
2-Propanol	ND	ug/m3	0.72	1.44							12/06/12 04:25	67-63-0	
Propylene	ND	ug/m3	0.50	1.44							12/06/12 04:25	115-07-1	
Styrene	ND	ug/m3	1.3	1.44							12/06/12 04:25	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.0	1.44							12/06/12 04:25	79-34-5	
Tetrachloroethene	36500	ug/m3	1640	2384.13							12/07/12 08:45	127-18-4	A3

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ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run

Pace Project No.: 10213050

Sample: VP-4		Lab ID: 10213050005	Collected: 11/14/12 03:45	Received: 11/20/12 09:51	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15						
Tetrahydrofuran	ND	ug/m3	0.86	1.44		12/06/12 04:25	109-99-9	
Toluene	4.8	ug/m3	1.1	1.44		12/06/12 04:25	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.2	1.44		12/06/12 04:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.6	1.44		12/06/12 04:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.79	1.44		12/06/12 04:25	79-00-5	
Trichloroethene	14.4	ug/m3	0.79	1.44		12/06/12 04:25	79-01-6	
Trichlorofluoromethane	6.0	ug/m3	1.6	1.44		12/06/12 04:25	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.3	1.44		12/06/12 04:25	76-13-1	
1,2,4-Trimethylbenzene	3.5	ug/m3	1.4	1.44		12/06/12 04:25	95-63-6	
1,3,5-Trimethylbenzene	1.6	ug/m3	1.4	1.44		12/06/12 04:25	108-67-8	
Vinyl acetate	ND	ug/m3	1.0	1.44		12/06/12 04:25	108-05-4	
Vinyl chloride	ND	ug/m3	0.37	1.44		12/06/12 04:25	75-01-4	
m&p-Xylene	3.3	ug/m3	2.5	1.44		12/06/12 04:25	179601-23-1	
o-Xylene	2.0	ug/m3	1.3	1.44		12/06/12 04:25	95-47-6	

ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Sample:	VP-5	Lab ID:	10213050006	Collected:	11/14/12 12:00	Received:	11/20/12 09:51	Matrix:	Air
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
TO15 MSV AIR		Analytical Method: TO-15							
Acetone	78.2	ug/m3	0.64	1.34		12/06/12 05:52	67-64-1		
Benzene	3.3	ug/m3	0.44	1.34		12/06/12 05:52	71-43-2		
Benzyl chloride	ND	ug/m3	1.4	1.34		12/06/12 05:52	100-44-7		
Bromodichloromethane	ND	ug/m3	1.8	1.34		12/06/12 05:52	75-27-4		
Bromoform	ND	ug/m3	2.8	1.34		12/06/12 05:52	75-25-2		
Bromomethane	ND	ug/m3	1.1	1.34		12/06/12 05:52	74-83-9		
1,3-Butadiene	ND	ug/m3	0.60	1.34		12/06/12 05:52	106-99-0		
2-Butanone (MEK)	19.3	ug/m3	0.80	1.34		12/06/12 05:52	78-93-3		
Carbon disulfide	45.3	ug/m3	0.84	1.34		12/06/12 05:52	75-15-0	SS	
Carbon tetrachloride	3.7	ug/m3	0.86	1.34		12/06/12 05:52	56-23-5		
Chlorobenzene	ND	ug/m3	1.3	1.34		12/06/12 05:52	108-90-7		
Chloroethane	ND	ug/m3	0.72	1.34		12/06/12 05:52	75-00-3		
Chloroform	197	ug/m3	1.3	1.34		12/06/12 05:52	67-66-3		
Chloromethane	ND	ug/m3	0.56	1.34		12/06/12 05:52	74-87-3		
Cyclohexane	2.8	ug/m3	0.94	1.34		12/06/12 05:52	110-82-7		
Dibromochloromethane	ND	ug/m3	2.3	1.34		12/06/12 05:52	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/m3	2.1	1.34		12/06/12 05:52	106-93-4		
1,2-Dichlorobenzene	ND	ug/m3	1.6	1.34		12/06/12 05:52	95-50-1		
1,3-Dichlorobenzene	ND	ug/m3	1.6	1.34		12/06/12 05:52	541-73-1		
1,4-Dichlorobenzene	ND	ug/m3	1.6	1.34		12/06/12 05:52	106-46-7		
Dichlorodifluoromethane	11.4	ug/m3	1.4	1.34		12/06/12 05:52	75-71-8		
1,1-Dichloroethane	ND	ug/m3	1.1	1.34		12/06/12 05:52	75-34-3		
1,2-Dichloroethane	ND	ug/m3	0.55	1.34		12/06/12 05:52	107-06-2		
1,1-Dichloroethene	76.1	ug/m3	1.1	1.34		12/06/12 05:52	75-35-4		
cis-1,2-Dichloroethene	16.4	ug/m3	1.1	1.34		12/06/12 05:52	156-59-2		
trans-1,2-Dichloroethene	14.3	ug/m3	1.1	1.34		12/06/12 05:52	156-60-5		
1,2-Dichloropropane	ND	ug/m3	1.3	1.34		12/06/12 05:52	78-87-5		
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		12/06/12 05:52	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.34		12/06/12 05:52	10061-02-6		
Dichlorotetrafluoroethane	ND	ug/m3	1.9	1.34		12/06/12 05:52	76-14-2		
Ethanol	62.8	ug/m3	0.51	1.34		12/06/12 05:52	64-17-5		
Ethyl acetate	ND	ug/m3	0.98	1.34		12/06/12 05:52	141-78-6		
Ethylbenzene	4.0	ug/m3	1.2	1.34		12/06/12 05:52	100-41-4		
4-Ethyltoluene	ND	ug/m3	1.3	1.34		12/06/12 05:52	622-96-8		
n-Heptane	3.8	ug/m3	1.1	1.34		12/06/12 05:52	142-82-5		
Hexachloro-1,3-butadiene	ND	ug/m3	2.9	1.34		12/06/12 05:52	87-68-3		
n-Hexane	6.3	ug/m3	0.96	1.34		12/06/12 05:52	110-54-3		
2-Hexanone	ND	ug/m3	1.1	1.34		12/06/12 05:52	591-78-6		
Methylene Chloride	ND	ug/m3	0.95	1.34		12/06/12 05:52	75-09-2		
4-Methyl-2-pentanone (MIBK)	4.5	ug/m3	1.1	1.34		12/06/12 05:52	108-10-1		
Methyl-tert-butyl ether	2.7	ug/m3	0.98	1.34		12/06/12 05:52	1634-04-4		
Naphthalene	ND	ug/m3	1.4	1.34		12/06/12 05:52	91-20-3		
2-Propanol	ND	ug/m3	0.67	1.34		12/06/12 05:52	67-63-0		
Propylene	ND	ug/m3	0.47	1.34		12/06/12 05:52	115-07-1		
Styrene	ND	ug/m3	1.2	1.34		12/06/12 05:52	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.94	1.34		12/06/12 05:52	79-34-5		
Tetrachloroethene	5180000	ug/m3	6330	9193.47		12/07/12 09:43	127-18-4	A3,E	

Date: 12/07/2012 04:11 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 05-529 Klinke-Fox Run

Pace Project No.: 10213050

Sample: VP-5		Lab ID: 10213050006	Collected: 11/14/12 12:00	Received: 11/20/12 09:51	Matrix: Air			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR		Analytical Method: TO-15						
Tetrahydrofuran	51.9	ug/m3	0.80	1.34		12/06/12 05:52	109-99-9	
Toluene	80.9	ug/m3	1.0	1.34		12/06/12 05:52	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.0	1.34		12/06/12 05:52	120-82-1	
1,1,1-Trichloroethane	39.0	ug/m3	1.5	1.34		12/06/12 05:52	71-55-6	
1,1,2-Trichloroethane	64.6	ug/m3	0.74	1.34		12/06/12 05:52	79-00-5	
Trichloroethene	603	ug/m3	0.74	1.34		12/06/12 05:52	79-01-6	E
Trichlorofluoromethane	5.0	ug/m3	1.5	1.34		12/06/12 05:52	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.1	1.34		12/06/12 05:52	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/m3	1.3	1.34		12/06/12 05:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.34		12/06/12 05:52	108-67-8	
Vinyl acetate	ND	ug/m3	0.96	1.34		12/06/12 05:52	108-05-4	
Vinyl chloride	ND	ug/m3	0.35	1.34		12/06/12 05:52	75-01-4	
m&p-Xylene	3.5	ug/m3	2.4	1.34		12/06/12 05:52	179601-23-1	
o-Xylene	ND	ug/m3	1.2	1.34		12/06/12 05:52	95-47-6	

QUALITY CONTROL DATA

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

QC Batch: AIR/16323 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10213050001, 10213050002, 10213050003, 10213050004, 10213050005, 10213050006

METHOD BLANK: 1345337 Matrix: Air
Associated Lab Samples: 10213050001, 10213050002, 10213050003, 10213050004, 10213050005, 10213050006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	12/05/12 22:08	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	12/05/12 22:08	
1,1,2-Trichloroethane	ug/m3	ND	0.55	12/05/12 22:08	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	12/05/12 22:08	
1,1-Dichloroethane	ug/m3	ND	0.82	12/05/12 22:08	
1,1-Dichloroethene	ug/m3	ND	0.81	12/05/12 22:08	
1,2,4-Trichlorobenzene	ug/m3	ND	1.5	12/05/12 22:08	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	12/05/12 22:08	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	12/05/12 22:08	
1,2-Dichlorobenzene	ug/m3	ND	1.2	12/05/12 22:08	
1,2-Dichloroethane	ug/m3	ND	0.41	12/05/12 22:08	
1,2-Dichloropropane	ug/m3	ND	0.94	12/05/12 22:08	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	12/05/12 22:08	
1,3-Butadiene	ug/m3	ND	0.45	12/05/12 22:08	
1,3-Dichlorobenzene	ug/m3	ND	1.2	12/05/12 22:08	
1,4-Dichlorobenzene	ug/m3	ND	1.2	12/05/12 22:08	
2-Butanone (MEK)	ug/m3	ND	0.60	12/05/12 22:08	
2-Hexanone	ug/m3	ND	0.83	12/05/12 22:08	
2-Propanol	ug/m3	ND	0.50	12/05/12 22:08	
4-Ethyltoluene	ug/m3	ND	1.0	12/05/12 22:08	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	12/05/12 22:08	
Acetone	ug/m3	ND	0.48	12/05/12 22:08	
Benzene	ug/m3	ND	0.32	12/05/12 22:08	
Benzyl chloride	ug/m3	ND	1.0	12/05/12 22:08	
Bromodichloromethane	ug/m3	ND	1.4	12/05/12 22:08	
Bromoform	ug/m3	ND	2.1	12/05/12 22:08	
Bromomethane	ug/m3	ND	0.79	12/05/12 22:08	
Carbon disulfide	ug/m3	ND	0.63	12/05/12 22:08	
Carbon tetrachloride	ug/m3	ND	0.64	12/05/12 22:08	
Chlorobenzene	ug/m3	ND	0.94	12/05/12 22:08	
Chloroethane	ug/m3	ND	0.54	12/05/12 22:08	
Chloroform	ug/m3	ND	0.99	12/05/12 22:08	
Chloromethane	ug/m3	ND	0.42	12/05/12 22:08	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	12/05/12 22:08	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	12/05/12 22:08	
Cyclohexane	ug/m3	ND	0.70	12/05/12 22:08	
Dibromochloromethane	ug/m3	ND	1.7	12/05/12 22:08	
Dichlorodifluoromethane	ug/m3	ND	1.0	12/05/12 22:08	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	12/05/12 22:08	
Ethanol	ug/m3	ND	0.38	12/05/12 22:08	
Ethyl acetate	ug/m3	ND	0.73	12/05/12 22:08	
Ethylbenzene	ug/m3	ND	0.88	12/05/12 22:08	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	12/05/12 22:08	

Date: 12/07/2012 04:11 PM

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QUALITY CONTROL DATA

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

METHOD BLANK: 1345337

Matrix: Air

Associated Lab Samples: 10213050001, 10213050002, 10213050003, 10213050004, 10213050005, 10213050006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/m3	ND	1.8	12/05/12 22:08	
Methyl-tert-butyl ether	ug/m3	ND	0.73	12/05/12 22:08	
Methylene Chloride	ug/m3	ND	0.71	12/05/12 22:08	
n-Heptane	ug/m3	ND	0.83	12/05/12 22:08	
n-Hexane	ug/m3	ND	0.72	12/05/12 22:08	
Naphthalene	ug/m3	ND	1.1	12/05/12 22:08	
o-Xylene	ug/m3	ND	0.88	12/05/12 22:08	
Propylene	ug/m3	ND	0.35	12/05/12 22:08	
Styrene	ug/m3	ND	0.87	12/05/12 22:08	
Tetrachloroethene	ug/m3	ND	0.69	12/05/12 22:08	
Tetrahydrofuran	ug/m3	ND	0.60	12/05/12 22:08	
Toluene	ug/m3	ND	0.77	12/05/12 22:08	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	12/05/12 22:08	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	12/05/12 22:08	
Trichloroethene	ug/m3	ND	0.55	12/05/12 22:08	
Trichlorofluoromethane	ug/m3	ND	1.1	12/05/12 22:08	
Vinyl acetate	ug/m3	ND	0.72	12/05/12 22:08	
Vinyl chloride	ug/m3	ND	0.26	12/05/12 22:08	

LABORATORY CONTROL SAMPLE: 1345338

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	58.5	105	72-129	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	69.4	99	73-131	
1,1,2-Trichloroethane	ug/m3	55.5	56.7	102	71-128	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	66.6	85	65-132	
1,1-Dichloroethane	ug/m3	41.2	40.4	98	67-132	
1,1-Dichloroethene	ug/m3	40.3	36.2	90	68-134	
1,2,4-Trichlorobenzene	ug/m3	75.5	90.7	120	48-150	
1,2,4-Trimethylbenzene	ug/m3	50	48.7	97	72-127	
1,2-Dibromoethane (EDB)	ug/m3	78.1	77.3	99	75-130	
1,2-Dichlorobenzene	ug/m3	61.2	58.3	95	71-132	
1,2-Dichloroethane	ug/m3	41.2	40.8	99	70-131	
1,2-Dichloropropane	ug/m3	47	50.5	108	73-130	
1,3,5-Trimethylbenzene	ug/m3	50	49.3	99	70-133	
1,3-Butadiene	ug/m3	22.5	21.0	93	69-132	
1,3-Dichlorobenzene	ug/m3	61.2	59.0	96	71-128	
1,4-Dichlorobenzene	ug/m3	61.2	58.6	96	72-131	
2-Butanone (MEK)	ug/m3	30	33.6	112	69-131	
2-Hexanone	ug/m3	41.7	41.1	99	71-134	
2-Propanol	ug/m3	25	22.9	92	72-132	
4-Ethyltoluene	ug/m3	50	48.7	97	71-129 SS	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	41.7	100	69-135	
Acetone	ug/m3	24.2	18.8	78	61-139	
Benzene	ug/m3	32.5	34.4	106	69-134	

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QUALITY CONTROL DATA

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

LABORATORY CONTROL SAMPLE: 1345338

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzyl chloride	ug/m3	52.5	51.4	98	70-129	
Bromodichloromethane	ug/m3	68.2	69.8	102	71-130	
Bromoform	ug/m3	105	104	99	70-130	
Bromomethane	ug/m3	39.5	34.3	87	69-125	
Carbon disulfide	ug/m3	31.7	24.7	78	66-131	SS
Carbon tetrachloride	ug/m3	64	65.7	103	68-128	
Chlorobenzene	ug/m3	46.8	48.5	104	75-128	
Chloroethane	ug/m3	26.8	22.7	85	66-131	
Chloroform	ug/m3	49.7	48.3	97	68-132	
Chloromethane	ug/m3	21	19.2	92	60-139	
cis-1,2-Dichloroethene	ug/m3	40.3	45.6	113	73-130	
cis-1,3-Dichloropropene	ug/m3	46.2	44.9	97	74-134	
Cyclohexane	ug/m3	35	41.6	119	67-136	
Dibromochloromethane	ug/m3	86.6	95.2	110	69-131	
Dichlorodifluoromethane	ug/m3	50.3	48.6	97	67-131	
Dichlorotetrafluoroethane	ug/m3	71.1	63.5	89	66-130	
Ethanol	ug/m3	19.2	16.1	84	69-131	
Ethyl acetate	ug/m3	36.6	39.7	108	71-131	
Ethylbenzene	ug/m3	44.2	44.5	101	69-139	
Hexachloro-1,3-butadiene	ug/m3	108	127	117	41-150	
m&p-Xylene	ug/m3	88.3	93.9	106	66-137	
Methyl-tert-butyl ether	ug/m3	36.7	36.2	99	70-132	
Methylene Chloride	ug/m3	35.3	29.4	83	73-134	
n-Heptane	ug/m3	41.7	43.7	105	70-134	
n-Hexane	ug/m3	35.8	38.1	106	65-133	
Naphthalene	ug/m3	53.3	65.1	122	57-150	SS
o-Xylene	ug/m3	44.2	44.0	100	69-138	
Propylene	ug/m3	17.5	19.2	110	70-134	
Styrene	ug/m3	43.3	41.9	97	72-132	
Tetrachloroethene	ug/m3	69	79.0	115	70-130	
Tetrahydrofuran	ug/m3	30	35.8	119	74-128	
Toluene	ug/m3	38.3	35.8	93	71-132	
trans-1,2-Dichloroethene	ug/m3	40.3	37.4	93	72-128	
trans-1,3-Dichloropropene	ug/m3	46.2	44.6	97	73-130	
Trichloroethene	ug/m3	54.6	59.6	109	72-131	
Trichlorofluoromethane	ug/m3	57.1	48.8	85	66-129	
Vinyl acetate	ug/m3	35.8	41.2	115	71-131	
Vinyl chloride	ug/m3	26	24.6	95	70-131	

QUALIFIERS

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

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

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

TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 10213050004

[1] The internal standard recoveries associated with this sample exceed the lower control limit (-/40% of initial calibration standard). Results confirmed by second analysis.

Sample: 10213050006

[1] The internal standard recoveries associated with this sample exceed the lower control limit (-/40% of initial calibration standard). Results confirmed by second analysis.

ANALYTE QUALIFIERS

A3 The sample was analyzed by serial dilution.

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

SS This analyte did not meet the secondary source verification criteria for the initial calibration. The reported result should be considered an estimated value.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 05-529 Klinke-Fox Run
Pace Project No.: 10213050

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10213050001	VP-1	TO-15	AIR/16323		
10213050002	VP-6	TO-15	AIR/16323		
10213050003	VP-2	TO-15	AIR/16323		
10213050004	VP-3	TO-15	AIR/16323		
10213050005	VP-4	TO-15	AIR/16323		
10213050006	VP-5	TO-15	AIR/16323		

10213050



AIR: CHAIN-OF-CUSTODY / Analytical Request Document

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

10213050

07271

Page: 1 of 1

Section A

Required Client Information:

Company: Saga Env. + Engr.
 Address: 110 E Lake St. #1
Lake Mills, WI 53551
 Email To: prichardsm@saga-ee.com
 Phone: 920-674-3411
 Requested Due Date/TAT:

Section B

Required Project Information:

Report To: Paula Richardson
 Copy To:
 Purchase Order No.: 05-529
 Project Name: Klink-Fox Run
 Project Number: 05-529

Section C

Invoice Information:

Attention: Paula Richardson
 Company Name:
 Address: Same
 Pace Quote Reference:
 Pace Project Manager/Sales Rep. Jeff Ramey / Dan M.
 Pace Profile #:

Program
 UST Superfund Emissions Clean Air Act
 Voluntary Clean Up Dry Clean RCRA Other
 Location of Sampling by State WI
 Reporting Units
 ug/m³ mg/m³
 PPBV PPMV
 Other
 Report Level II ___ III ___ IV ___ Other ___

ITEM #	'Section D Required Client Information AIR SAMPLE ID Sample IDs MUST BE UNIQUE	Valid Media Codes MEDIA CODE Tedlar Bag TB 1 Liter Summa Can 1LC 6 Liter Summa Can 6LC Low Volume Puff LVP High Volume Puff HVP Other PM10	MEDIA CODE	PID Reading (Client only)	COLLECTED				Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method:								Pace Lab ID	
					COMPOSITE START		COMPOSITE -						PM10	3C-Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15		TO-15 Short List*
					DATE	TIME	DATE	TIME														
1	VP-1	6LC	-	11/14/12	9:15	11/14/12	9:45	30	4	1242									X	1021305001		
2	VP-6	6LC	-	11/14/12	10:30	11/14/12	11:00	30	3	954									X	002		
3	VP-2	6LC	-	11/14/12	2:15	11/14/12	2:45	26	5	984									X	003		
4	VP-3	6LC	-	11/14/12	1:05	11/14/12	1:35	32	2	1214									X	004		
5	VP-4	6LC	-	11/14/12	3:15	11/14/12	3:45	27	3	871									X	005		
6	VP-5	6LC	-	11/14/12	11:30	11/14/12	12:00	29	5	1224									X	006		

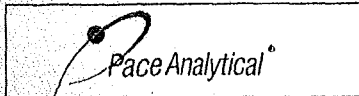
Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
<u>Paula Richardson Saga</u>	<u>11/14/12</u>	<u>4 PM</u>	<u>Jeff Ramey</u>	<u>11/20/12</u>	<u>09:51 AM</u>	<u>Y</u> <u>Y</u> <u>Y</u> <u>Y</u>
						<u>Y</u> <u>Y</u> <u>Y</u> <u>Y</u>
						<u>Y</u> <u>Y</u> <u>Y</u> <u>Y</u>
						<u>Y</u> <u>Y</u> <u>Y</u> <u>Y</u>

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Paula Richardson
 SIGNATURE of SAMPLER: Paula Richardson DATE Signed (MM/DD/YY) 11/14/12
 Temp in °C
 Received on ice
 Custody Sealed Cooler
 Samples Intact

ORIGINAL

22 of 23



Document Name:
Air Sample Condition Upon Receipt

Document No.:
F-MN-A-106-rev.06

Document Revised: 13Nov2012
Page 1 of 1

Issuing Authority:
Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: SAGA ENV & ENG. Project #: _____

WO#: 10213050

10213050

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: WATCO

Tracking Number: _____

Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No Optional: Proj. Due Date: _____ Proj. Name: _____

Packing Material: Bubble Wrap Bubble Bags Foam None Other: Box

Temperature (TO17 and TO13 samples only) (°C): AMB Corrected Temp (°C): _____ Thermometer Used: B88A912167504 80512447
 Date & Initials of Person Examining Contents: 11-20-12 JF

Comments: _____

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Media: <u>ARCAM</u>		11.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.

Samples Received: 6 CANIS, 6 FC'S

Canisters		Flow Controllers		Stand Alone G	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
<u>VP-1</u>	<u>1242</u>	<u>FC0290</u>			
<u>VP-6</u>	<u>0957</u>	<u>FC0331</u>			
<u>VP-2</u>	<u>0984</u>	<u>FC0383</u>			
<u>VP-3</u>	<u>1214</u>	<u>FC0243</u>			
<u>VP-4</u>	<u>0871</u>	<u>FC0181</u>			
<u>VP-5</u>	<u>1224</u>	<u>FC0103</u>			

CLIENT NOTIFICATION/RESOLUTION Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: [Signature] Date: 11/21/12

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