Phase II Environmental Site Assessment

FOR: City of Princeton EDA

Old & Abandoned Gas Station

903 9th Avenue North

Princeton, MN 55371

Prepared by:

West Central Environmental Consultants, Inc.

11265 91st Avenue North

Maple Grove, Minnesota 55369

(763) 571-4944

August 14, 2013

WCEC Project No. 13.9586.30

WCEC
ENVIRONMENTAL CONSULTANTS

Minneapolis/St. Paul, Minnesota Office
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August 14, 2013

Ms. Carie Fuhrman, Director
Economic Development Authority
City of Princeton
705 Second Street North
Princeton, MN 55371

Subject: **PHASE II ENVIRONMENTAL SITE ASSESSMENT**
Old gas station at 903 9th Ave. North in Princeton, Minnesota
WCEC Project No. 13-9586-30

Dear Ms. Furhman:

West Central Environmental Consultants, Inc. (WCEC) has completed the Phase II Environmental Site Assessment (Phase II ESA) of the above-referenced tax forfeit property (Site) as you requested. WCEC understands that you require this work as part of prudent due diligence practices, and that the property may be a candidate for redevelopment via the Neighborhood Stabilization Program (NSP) funding process. As part of property redevelopment, the City will need to demolish the structure on the property. We completed assessment of potential hazardous materials prior to the future demolition of structures on the property, as you have requested in your Request for Proposal (RFP) for this project.

1.0 SCOPE OF WORK

WCEC completed the work scope detailed in the RFP for this Phase II ESA. This included a review of available information about the property, and completion of soil borings on the site. In addition, a pre-demolition waste assessment was completed to document the presence of "special wastes" on the site that would require specific handling practices as part of demolition prior to redevelopment. Tasks included in the work scope consisted of:

- Background review – this included review of maps depicting the site, discussions with knowledgeable local individuals, and a search for Sanborn fire protection maps (none existed) that depict the property. In addition, a review of the site area for landfills, Wild and Scenic rivers, evidence of underground storage tanks, and other sources of toxic materials on the property was completed;
- A reconnaissance of the Site and surrounding lands was completed for the presence of Recognized Environmental Conditions (RECs) as recognized by ASTM per E1527(05);
- The Site inspection included a pre-demolition assessment for Asbestos, Lead-Based paint, and other probable environmental hazards. This was completed by a subconsultant retained by WCEC; and,
- Phase II ESA – this included four soil borings and four vapor probes around the property, sampling for the petroleum constituents of concern, and completion of this report.

The Site location appears on Figure 1. Access to the property was provided by the City of Princeton, and the location of publicly owned utilities was determined through use of the "Gopher State One-Call" service prior to the Site work.

2.0 FINDINGS

WCEC visited the Site on July 16, 2013 to clear utilities and review the Site and surroundings. On the same day a subconsultant to WCEC, Institute for Environmental Assessment, Inc. (IEA) completed the predemolition assessment. WCEC completed a subsurface investigation on July 17, 2013.

WCEC spoke with Mr. James Malcolm of Princeton, Minnesota concerning the Site. According to Mr. Malcolm, his father built the gas station from repurposed farm house components in approximately 1945-1946. The adjacent property to the north had been occupied by a cabin which was later used as a service garage for tractors and other implements. Mr. Malcolm thought that the northern property may have shared a septic disposal system with the Site property, but he was unsure as to the location and nature of a septic system on the Site.

When informed that the building's interior walls had panels of Transite, he remarked that the rear of the building had been used as a residence and these panels may have been a means of reducing sound transmission from the restaurant/service station into the living quarters. Mr. Malcolm indicated that the former underground storage tanks (USTs) for the station were immediately east of the building, and these were beneath the (now removed) dispensers and were aligned where a row of tree saplings are currently present, as observed by WCEC during the Phase II ESA investigation. He mentioned that his parents transferred the property in exchange for a farmstead northwest of town where he currently resides.

2.1 Site Inspection

WCEC observed the presence of one water well beneath the stairs into the basement. The well and its appurtenances suggested a relatively shallow sand point well. The well had been disconnected from power and plumbing lines at some point prior to the inspection by WCEC. Unused water wells are required by Minnesota Well Code to be sealed by a licensed contractor, and WCEC recommends that this should be performed prior to demolition work.

The Site included overgrown vegetation and a deteriorated station building. A vertical clay pipe was found in the back lot area, near a steep bank that leads down to West Branch Rum River. The clay pipe was viewed by WCEC in the winter of 2013 during the RFP bidding period, and found to have a thin layer of frost deposits in its interior wall. This suggests the pipe is an opening to a leach pit or septic tank that had served the property prior to connection to municipal utilities. State and local codes require the abandonment of unused septic tanks/cisterns and related features by a licensed contractor.

IEA completed a hazardous waste site inspection. The IEA report of findings is found attached. IEA noted that the following items were confirmed to be asbestos containing materials (ACM) in the building:

- 9 inch square floor tile, and 12 inch square floor tile;
- Tar 'mastic' on exterior of the stucco;
- Exterior window caulk; and,
- Transite panels were found in interior walls.

In addition, IEA identified paint that meets applicable definitions of "lead based" paint that included white paint on interior door casings, and white and brown exterior window framings. As all paint on the structure is deteriorating, the lead-based paint would likely require abatement (removal and/or encapsulation) prior to demolition.

2.2 Surrounding Features

WCEC observed the adjoining property to the north contained a derelict building with collapsed roof; no signs of a septic system, underground storage tanks, or a well were observed by WCEC in the course of a pedestrian survey of the property.

The property to the south was observed to be a single family residence, and seemed to be in good repair. No items of elevated concern were noted by WCEC as viewed from the Site. Beyond this adjacent property, a Casey's Convenience Store (gas station) was seen. A review of Minnesota Pollution Control Agency (MPCA) "Leak Finder" and their map utility "What's In My Neighborhood" records did not identify a release of petroleum at this facility.

West Branch Rum River flows from north to south, and passes the Site approximately 200 feet to the west. This stream is tributary to Rum River, which flows north to south approximately ½ mile to the east of the Site. Rum River along this reach is designated as a Scenic River per Minnesota Rules 6105.1430 (B.) which imposes certain land use provisions on West Branch Rum River per MR 6105.1440 (E.) that include the following restrictions that may affect development of the Property (not all-inclusive) depending on the nature and scope of development activities:

- A lot size minimum of 250 feet wide and frontage of 250 feet along the water is required for "land abutting" the river;
- Vegetative clearing (e.g. clear-cutting, vegetation management) is restricted within 150 feet of the river's normal high water elevation;, and,
- Development cannot occur closer to the river than 30 feet landward of the bluff line of the river.

Property restrictions related to the Site's proximity to a tributary of a designated Scenic river are specific to the activities contemplated for the property, which are have not been detailed to WCEC at present. The above citations provide a framework for probable property development constraints based on current information.

The nearest reported solid waste landfill, Princeton Dump, is located over 4000 feet to the northwest, see Figure 2. No other hazardous waste landfills or solid waste landfills were found within the 3000 foot search radius from the Site.

2.3 Phase II ESA Results

Four direct-push soil borings and four soil gas sampling probes were completed at the locations illustrated on Figure 3. Soil samples were collected from the water table (27 to 28 feet below ground surface - BGS) and from the base of each borehole at 32 BGS. These samples were submitted to Pace Analytical Inc. (Pace) for analysis of Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and for Methyl-Tert Butyl ether (MTBE) and Benzene, Toluene, Ethylbenzene, and Xylenes (MBTEX) following methodologies approved by MPCA as certified by Minnesota Department of Health (MDH). None of these target analytes were detected by Pace. Copies of laboratory reports are found attached.

A groundwater sample was collected from each borehole using the screened intake sampling method, and submitted to the laboratory for analysis of GRO, DRO, and Volatile Organic Compounds (VOCs). As with the soil samples, no detections of the target compounds were noted by Pace.

Grab samples of the soil gas were obtained using the "post-run tubing" (PRT) sampling method, and summa canister provided by the laboratory. These were analyzed by "Minnesota List" VOCs following EPA method TO-15. The analytical results are summarized on Table 1, along with applicable risk-based criteria promulgated by the MPCA. Several VOCs were detected in various locations, and these were generally below applicable regulatory criteria except

for the presence of Benzene, Naphthalene, and 1,2,4-Trimethylbenzene in vapor probe VP-1 that were above the Intrusion Screening Values (ISVs) promulgated by the MPCA. These three compounds are commonly found in petroleum mixtures, including gasoline and diesel fuel.

Of the soil gas compounds detected, two (Benzene and Naphthalene) were present at concentrations greater than ten times (10x) the ISV. On a known petroleum release site, this would warrant additional "vapor intrusion investigation" and risk evaluation based on this. Concentrations of 100x ISV or greater can pose risk of intrusion through the soil and into subsurface structures, such as through an overlying basement floor slab. This investigation did not identify impacts to the soil and/or groundwater that would indicate a release had occurred, and which could serve as a source of soil gas contaminants. Furthermore, radial soil gas sampling locations did not encounter these compounds at concentrations 10x ISV or greater, which indicates the extent of soil gas impacts is limited and that the risk to surrounding properties posed by this Site is also very limited.

3.0 DISCUSSION

Site findings include the presence of items of potential concern, including RECs as defined by ASTM. These include the presence of hazardous materials that require special handling during demolition, property conditions that have other regulatory implications, and the presence of soil gas impacts that could put future structures at-risk. The remainder of this section provides a summary of site findings with respect to these RECs.

3.1 Hazardous Wastes

The predemolition assessment identified the presence of asbestos containing materials (ACMs) and lead-based paint (LBP) in the building. In addition, there may be regulated items in the construction of the well pump motor, and in isolated items found on the property. Current information identifies the hazardous materials present that would require special waste handling is the ACM and LBP, but the property remains open to individuals that could deposit additional items on the property, despite laws that prohibit such dumping.

3.2 Other Regulatory Items

Site findings revealed the presence of various items of concern that would trigger a regulatory response.

<u>Abandoned well</u> - The onsite water well in the basement must be sealed per Well Code, this requires a licensed Water Well Contractor to perform the work, and involves MDH notification and a processing fee.

<u>Septic system</u> - There appears to be an onsite sewage disposal system (SDS) on the property. This must be abandoned by a duly licensed Contractor per MDH and local codes. This usually consists of the pumping of contents from the system (septic tank, etc.) and the removal or collapse of the tank. This would require some amount of subsurface work (excavation) to expose the system components and provide access for the further evaluation and work associated with SDS abandonment. There is potential that the SDS is connected to the adjacent property; the potential for such cross-connections to exist should be considered by the City of Princeton when pursuing redevelopment of the Site and/or adjoining properties.

<u>Protected Features</u> - The location of the Site near a tributary to a designated Scenic river raises concerns for appropriate land use of the subject property. A review of the web-based Mille Lacs County parcel map utility indicates that the Site does not abut West Branch Rum River, and it is possible that the actual Site boundary (and any activity proposed on the property) is not within the setbacks described in section 2.2 above. However, the City may consider

assembling multiple parcels for a proposed development, and the full property assemblage and its proposed use should be reviewed to determine the extent of regulation involved. County and City of Princeton planning/zoning provisions include specific guidelines for settings near protected features, and the appropriate environmental review required by project-specific criteria.

3.3 Soil Gas Impacts

The Phase II ESA results provide inconclusive data. The lack of detectable soil and groundwater impacts would suggest that a significant release of petroleum has not occurred on the Site… but the presence of soil gas contaminants above risk-based regulatory values indicates that a contaminant source, however localized, must exist on the Site. The location of the impacted soil gas sample was between the building and the former UST and pump island location as described by Mr. Malcolm, and the ground surface consists of a concrete slab in this area. The presence of petroleum impacts to soil gas would represent a "vapor encroachment condition" to the current building and to a future building if these impacts remained after redevelopment. As such, additional environmental responses could be required.

Petroleum VOCs in soil gas is indirect evidence that some petroleum impacts to soil could exist beneath the concrete surface. Redevelopment activities would likely include removal of this slab and surrounding sapling growth, which would provide an opportunity to explore the soils in this area for potential (presumably localized) impacts. Further responses to soil contamination (if present) would need to follow MPCA guidance. It is noted that the risks posed by localized soil vapor impacts on the Site could be reduced through use of vapor barrier on future building construction, which is a common requirement for reduction of moisture intrusion into the building envelope.

4.0 RECOMMENDATIONS

WCEC recommends that the existing water well be sealed by a properly licensed Contractor. The suspected septic system should also be abandoned properly by a licensed professional; WCEC recommends that the Contractor also explore around the system for the possible connection to the offsite property, and to ensure all components are decommissioned properly.

Demolition of the building should be completed by a properly licensed professional firm, and WCEC also recommends that this be completed in the near term to remove the potential safety hazards that exist due to the currently unsecured status of the building. The basement stairs are partially collapsed, areas of the floors are missing, and interior walls and roof areas have deteriorated to a point where the building could be condemned as a "public nuisance". Interim safety measures could include boarding-up the building, and police surveillance of the Site. It is anticipated that clearing the property for future use would include removal of the concrete slab near the building; WCEC recommends additional investigation beneath the slab to explore for petroleum impacts to the soil.

WCEC also recommends that a Construction Contingency Plan (CCP) be prepared for Site demolition (and the redevelopment) work. The CCP would establish the actions to take in response to identified potential site conditions, such as encountering abandoned USTs, contaminated soil, or other unanticipated conditions that could elevate the risk to the environment and public.

Further recommendations can be made in the light of additional information developed from the above actions, and based on more detailed plans concerning the proposed use of the Site property (and adjoining lands) as these become available.

CONTRACTOR CERTIFICATION

The applicable WCEC project team members possess the required certifications for the work requested in the RFP, as reported herein. The IEA representatives involved have provided documentation of professional credential/licensure, and the nature of their work on behalf of City of Princeton EDA was known to them. WCEC affirms the following Contractor Certification of work, specific to the assignment made to our firm pursuant to the RFP:

I certify that the investigation and review of environmental conditions set forth in this report follow applicable regulatory and professional standards followed in the property assessment industry for underground storage tank release sites, and I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Consultant Representative Signature: _____ Title: _Project Manager_____

Consultant Representative's Printed Name: _Steve Carlson_____ and Date: _August 14, 2013_____

CLOSING

WCEC appreciates this opportunity to provide services for City of Princeton EDA on this property. If you have questions concerning this report, or for other project inquiries please contact me via eMail, or call me in the metro region office at (763) 571-4944 during your normal office hours. We look forward to hearing from you.

Respectfully,
WEST CENTRAL ENVIRONMENTAL CONSULTANTS, INC.

Steve Carlson
Project Manager

ATTACHMENTS:
Figures
Table 1 – Soil Gas Analysis Summary
Soil Boring Logs
Copies of Analytical Reports
Copy of IEA Inspection Report

FIGURES

1. SITE LOCATION MAP on USGS Quadrangle Topographic Base Map
2. SITE LOCATION depicting Site
    a. 2003 Aerial Map, shows Site layout and pump island area
    b. Environmental Features of concern Cited in the Report text
3. Soil Boring Locations
4. Parcel Map downloaded from web-based Mille Lacs County GIS

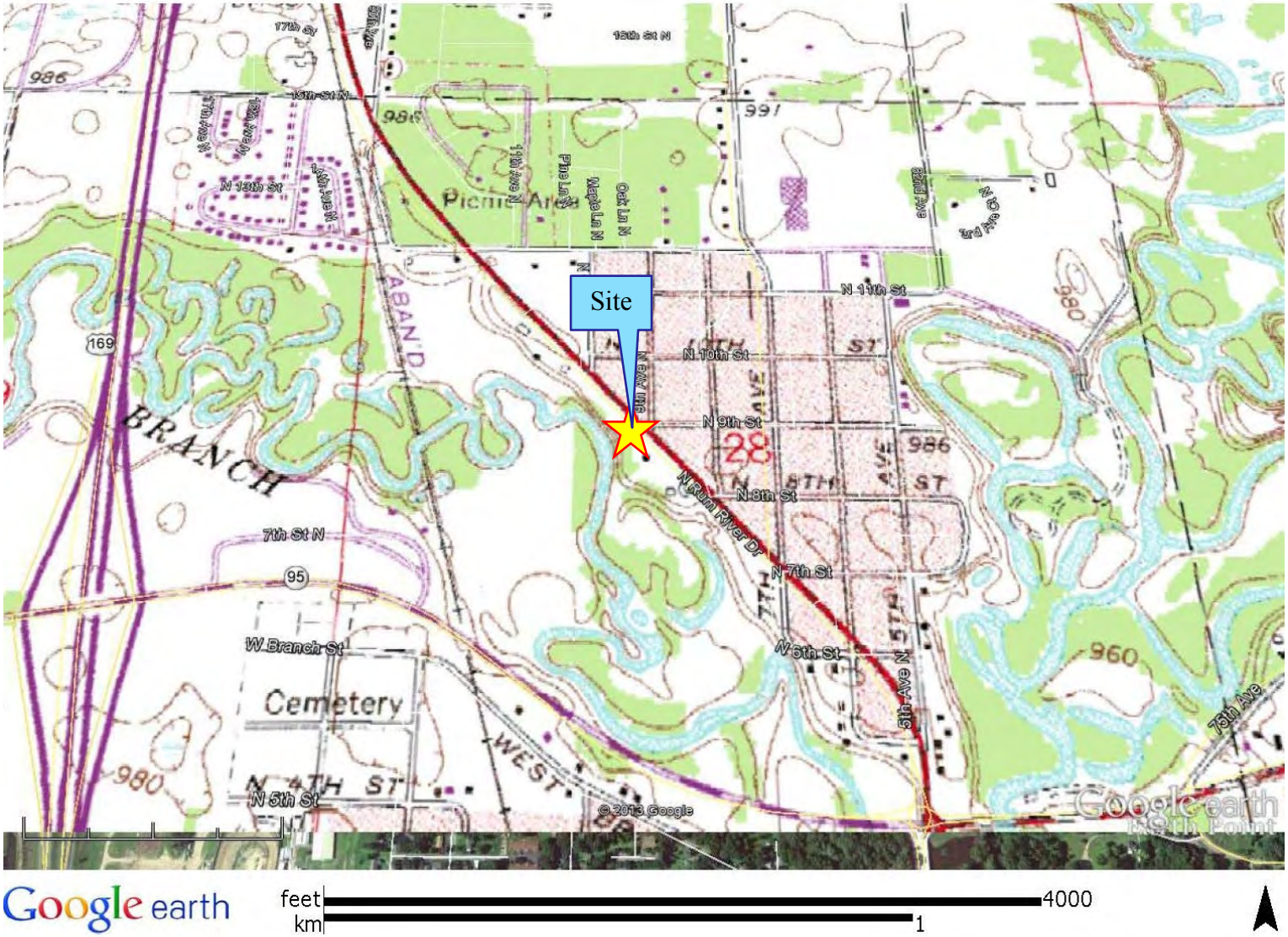

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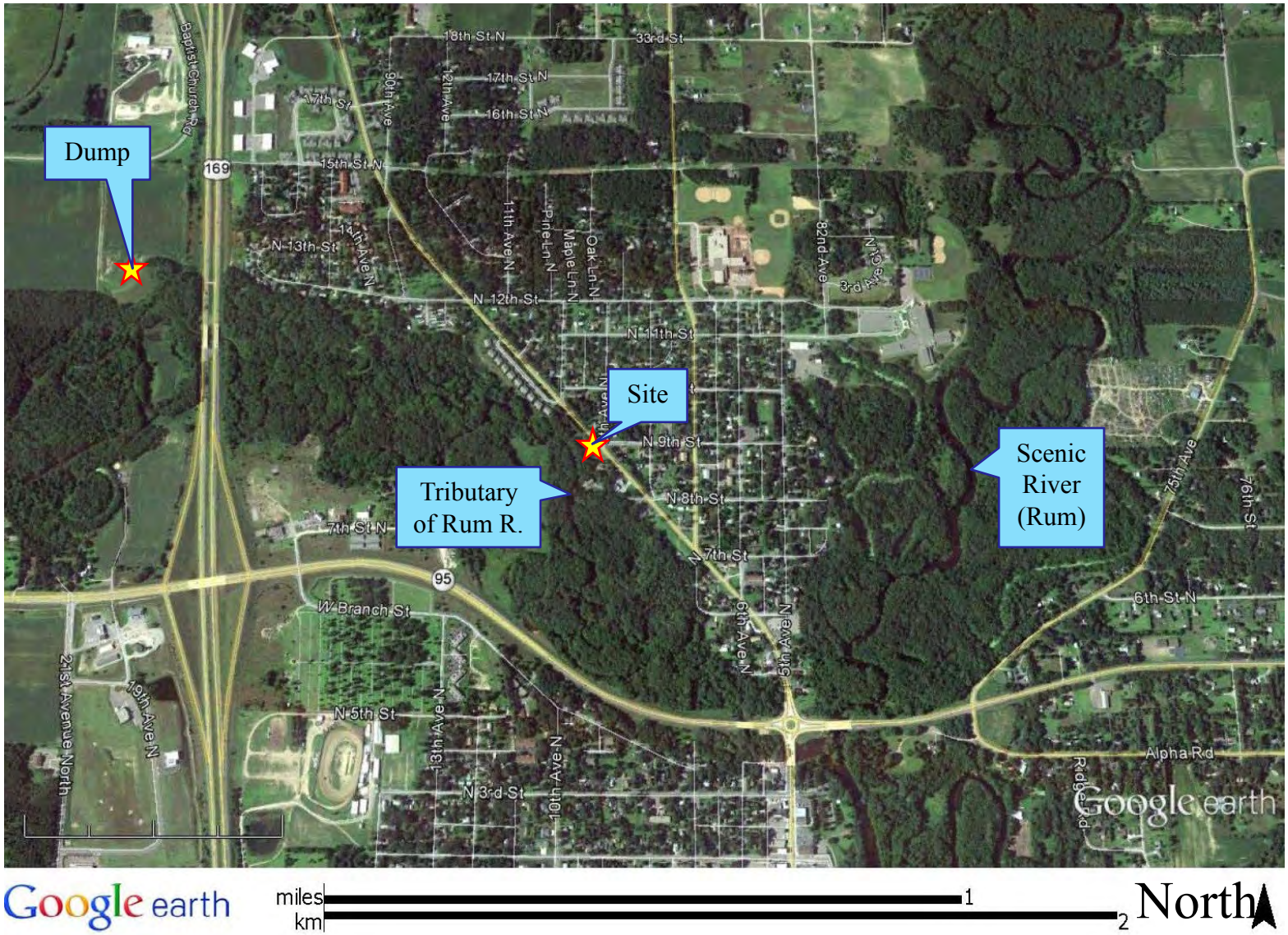
FIGURE 1: SITE LOCATION DIAGRAM

Former Gas Station – 903 9th Avenue North, Princeton

WCEC Project No. 13-9586-30



Google earth miles 1 km 2 North

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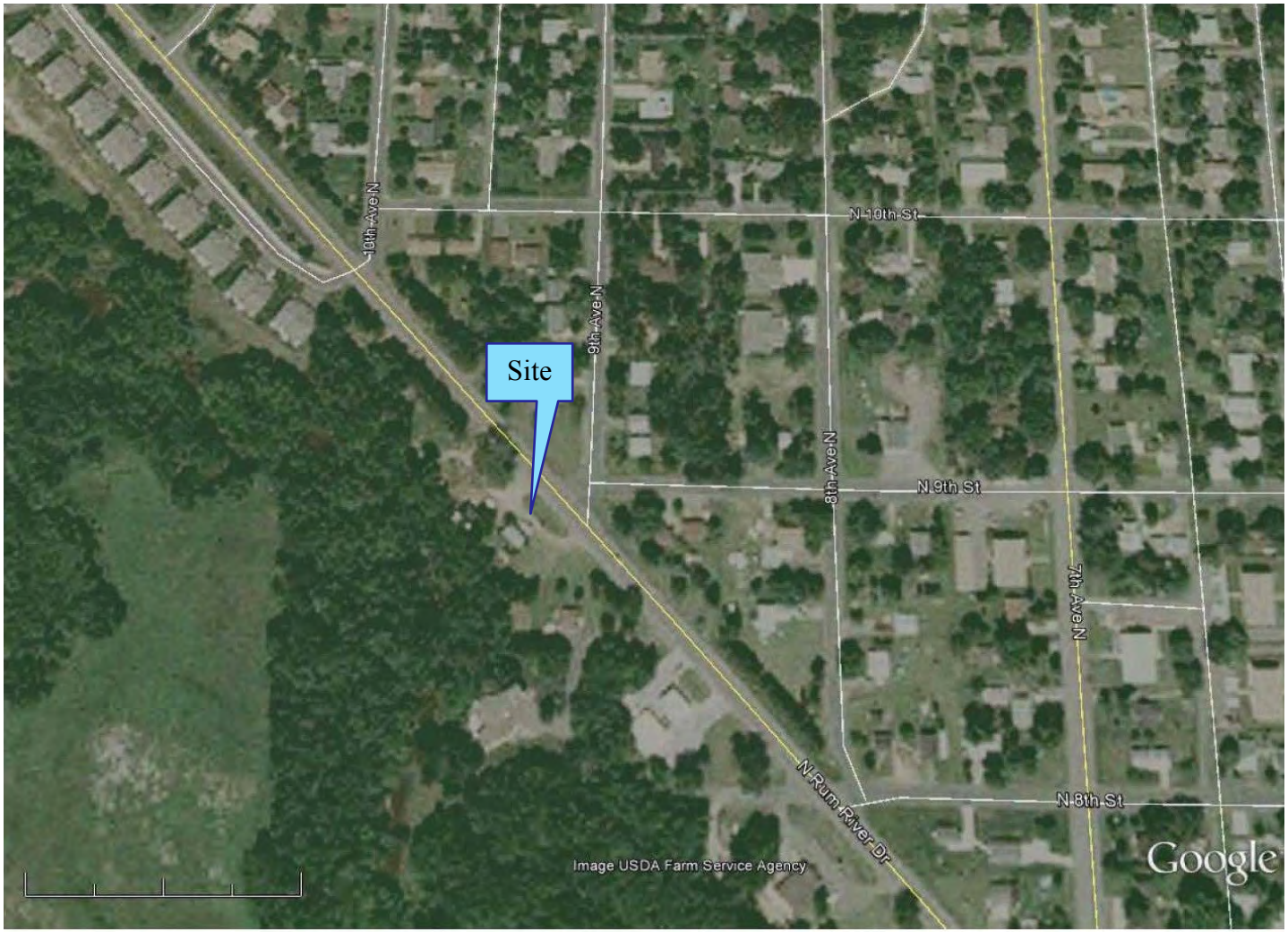
FIGURE 2A: FEATURES OF ENVIRONMENTAL CONCERN

Former Gas Station – 903 9th Avenue North, Princeton

WCEC Project No. 13-9586-30



Google earth

feet 1000
meters 400

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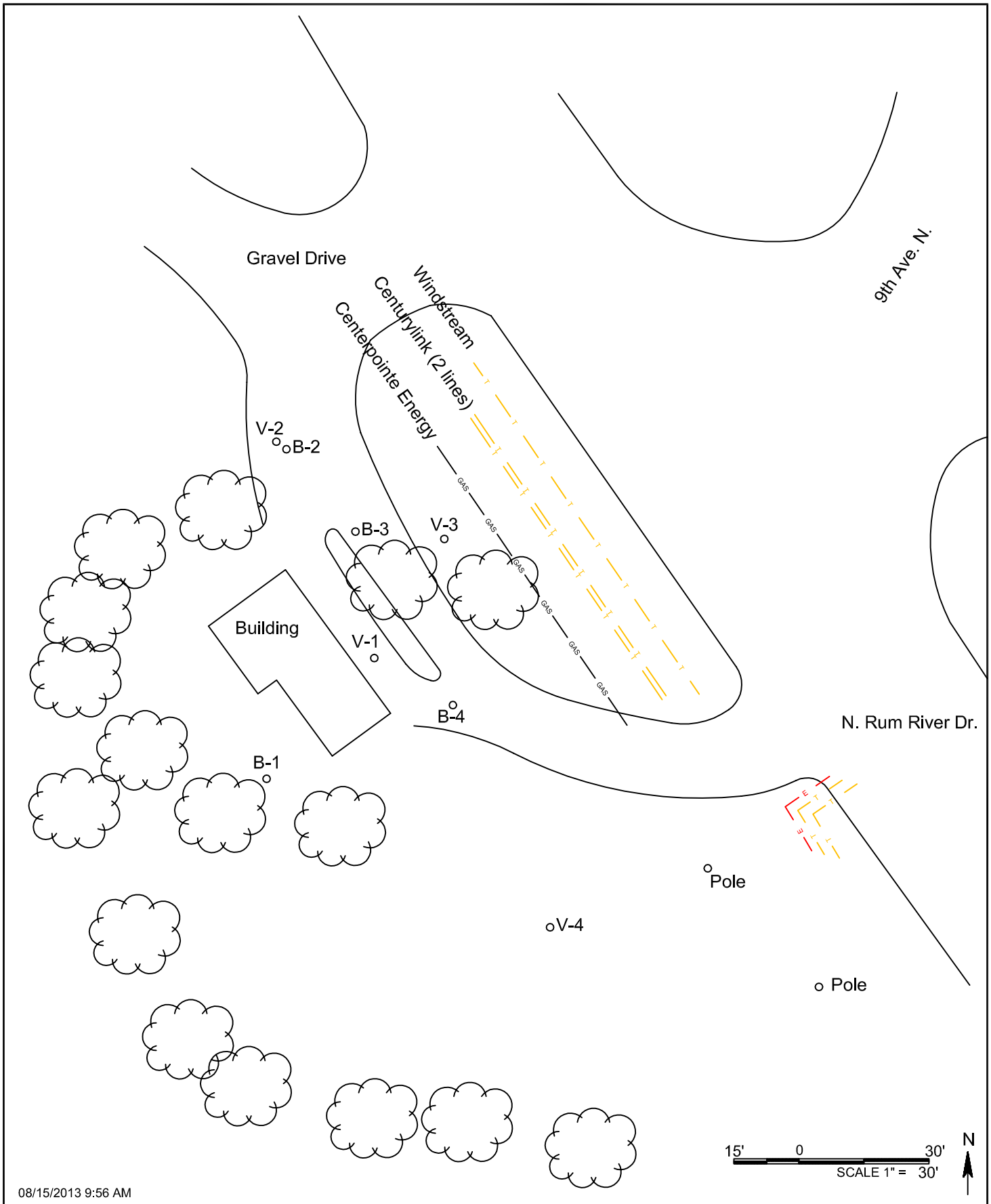
FIGURE 2B: 2003 Aerial Map

Former Gas Station – 903 9th Avenue North, Princeton

WCEC Project No. 13-9586-30



KEY

S-# Soil Boring Location
V-# Soil Gas Sample Location
T Underground Phone/cable
GAS Gas
E Underground Power

PROJECT No.: 13-9586-30 Phase II ESA
Abandoned Gas Station, Princeton

FIGURE 3: Detailed Site Map

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TABLE 1
Summary of Soil Gas Analysis

WCEC Project 13-9586
TABLE 1

Results of Soil Gas Sampling for Vapor Intrusion Screening

Results in ug/m^3

Sample location	VP1		VP2		VP3		VP4		**Residential Intrusion Screening Value, (ISV) ug/m^3**	**ACUTE Intrusion Screening Value, (ISV) ug/m^3**
Sample Date	**7/17/2013**		**7/17/2013**		**7/17/2013**		**7/17/2013**			
Depth (ft)	**6--8**		**6--8**		**6--8**		**6--8**			
PID Reading	**na**		**<1**		**2**		**3**			
Compounds	Result	Reporting limit	Result	Reporting limit	Result	Reporting limit	Result	Reporting limit		
Acetone	**57.7**	0.69	**83.3**	0.93	**48.9**	0.72	**73.8**	0.69	31000	60000
Benzene	**586**	37.4	**8.3**	0.63	**7.9**	0.48	ND	0.47	4.5	1000
Benzyl chloride	ND	1.5	ND	2	ND	1.6	ND	1.5	1	240
Bromodichloromethane	ND	2	ND	2.6	ND	2	ND	2	NA	NA
Bromoform	ND	3	ND	4.1	ND	3.1	ND	3	9	NA
Bromomethane	ND	1.1	ND	1.5	ND	1.2	ND	1.1	5	2000
1,3-Butadiene	ND	0.65	ND	0.87	ND	0.67	ND	0.65	0.3	NA
2-Butanone (MEK)	**31.9**	0.86	**20.6**	1.2	**19.4**	0.89	**24.1**	0.86	5000	10000
Carbon disulfide	**9.3**	0.91	**5.1**	1.2	**2.8**	0.94	**8.7**	0.91	700	6000
Carbon tetrachloride	ND	0.92	ND	1.2	ND	0.95	ND	0.92	0.7	1900
Chlorobenzene	ND	1.4	ND	1.8	ND	1.4	ND	1.4	50	NA
Chloroethane	ND	0.78	ND	1	ND	0.8	ND	0.78	10000	100000
Chloroform	ND	1.4	ND	1.9	ND	1.5	ND	1.4	100	150
Chloromethane	ND	0.6	ND	0.81	ND	0.63	ND	0.6	90	1000
Cyclohexane	ND	1	**7.6**	1.4	**4.7**	1	**3.6**	1	6000	NA
Dibromochloromethane	ND	2.5	ND	3.3	ND	2.6	ND	2.5	NA	NA
1,2-Dibromoethane (EDB)	ND	2.2	ND	3	ND	2.3	ND	2.2	0.02	NA
1,2-Dichlorobenzene	ND	1.8	ND	2.4	ND	1.8	ND	1.8	200	NA
1,3-Dichlorobenzene	ND	1.8	ND	2.4	ND	1.8	ND	1.8	NA	NA
1,4-Dichlorobenzene	ND	1.8	ND	2.4	ND	1.8	ND	1.8	60	10000
Dichlorodifluoromethane	**1.9**	1.5	**2.9**	1.9	**2.1**	1.5	**2**	1.5	200	NA
1,1-Dichloroethane	ND	1.2	ND	1.6	ND	1.2	ND	1.2	500	NA
1,2-Dichloroethane	ND	0.59	ND	0.79	ND	0.61	ND	0.59	0.4	NA
1,1-Dichloroethene	ND	1.2	ND	1.6	ND	1.2	ND	1.2	200	NA
cis-1,2-Dichloroethene	ND	1.2	ND	1.6	ND	1.2	ND	1.2	NA	NA
trans-1,2-Dichloroethene	ND	1.2	ND	1.6	ND	1.2	ND	1.2	60	800
1,2-Dichloropropane	ND	1.4	ND	1.8	ND	1.4	ND	1.4	4	200
cis-1,3-Dichloropropene	ND	1.3	ND	1.8	ND	1.4	ND	1.3	20	NA
trans-1,3-Dichloropropene	ND	1.3	ND	1.8	ND	1.4	ND	1.3	20	NA
Dichlorotetrafluoroethane	ND	2	ND	2.7	ND	2.1	ND	2	NA	NA
Ethanol	**7.3**	0.55	**17.3**	0.73	ND	0.57	ND	0.55	15000	180000
Ethyl acetate	ND	1.1	**9.9**	1.4	ND	1.1	ND	1.1	3000	40000
Ethylbenzene	**40.3**	1.3	**6.6**	1.7	**5.1**	1.3	**4.7**	1.3	1000	10000
4-Ethyltoluene	**13.7**	1.4	**5.7**	1.9	**1.9**	1.5	**2.4**	1.4	NA	NA
n-Heptane	ND	1.2	**8.9**	1.6	**5**	1.2	**5.1**	1.2	NA	NA
Hexachloro-1,3-butadiene	ND	3.2	ND	4.2	ND	3.3	ND	3.2	0.5	NA
n-Hexane	**10.6**	1	**16.2**	1.4	**9.9**	1.1	**6.7**	1	2000	NA
2-Hexanone	ND	1.2	ND	1.6	ND	1.2	ND	1.2	NA	NA
Isopropylbenzene (Cumene)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	**3.1**	1	**66.3**	1.4	**1.9**	1.1	**3.9**	1	20	10000
4-Methyl-2-pentanone (MIBK)	ND	1.2	ND	1.6	**2.6**	1.2	ND	1.2	3000	NA
Methyl-tert-butyl ether	ND	1.1	ND	1.4	ND	1.1	ND	1.1	3000	7000
Naphthalene	**19700**	123	**13.1**	2.1	**43.3**	1.6	**15.3**	1.5	9	NA
2-Propanol	ND	0.72	ND	0.96	ND	0.74	ND	0.72	7000	3200
Propylene	**127**	0.5	ND	0.68	ND	0.52	**170**	0.5	3000	NA
Styrene	**1340**	100	**5.2**	1.7	**3.7**	1.3	**3.8**	1.3	1000	21000
1,1,2,2-Tetrachloroethane	ND	1	ND	1.3	ND	1	ND	1	0.2	NA
Tetrachloroethene	ND	0.99	**5.7**	1.3	**2.1**	1	ND	0.99	20	20000
Tetrahydrofuran	ND	0.86	ND	1.2	ND	0.89	ND	0.86	NA	NA
Toluene	**1020**	88.7	**16.9**	1.5	**16.1**	1.1	**14.3**	1.1	5000	37000
1,2,4-Trichlorobenzene	ND	2.2	ND	2.9	ND	2.2	ND	2.2	4	NA
1,1,1-Trichloroethane	ND	1.6	ND	2.1	ND	1.7	ND	1.6	5000	140000
1,1,2-Trichloroethane	ND	0.79	ND	1.1	ND	0.82	ND	0.79	0.6	NA
Trichloroethene	ND	0.79	ND	1.1	ND	0.82	ND	0.79	3	2000
Trichlorofluoromethane	ND	1.6	ND	2.2	ND	1.7	ND	1.6	700	NA
1,1,2-Trichlorotrifluoroethane	ND	2.3	ND	3.1	ND	2.4	ND	2.3	30000	NA
1,2,4-Trimethylbenzene	**95.7**	1.4	**12.3**	1.9	**9.6**	1.5	**12.1**	1.4	7	NA
1,3,5-Trimethylbenzene	**30.9**	1.4	**4.9**	1.9	**1.7**	1.5	**2.4**	1.4	6	NA
Vinyl acetate	ND	1	ND	1.4	ND	1.1	ND	1	200	NA
Vinyl chloride	ND	0.37	ND	0.5	ND	0.39	ND	0.37	1	180000
m&p-Xylene	**795**	203	**16.6**	3.4	**15.8**	2.6	**14.6**	2.5	100	43000
o-Xylene	**87.2**	1.3	**7.4**	1.7	**5.9**	1.3	**5.7**	1.3	100	43000

Comments: Results in ug/m^3 **Bold Type** is used to emphasize the detection of a compound

Highlighted results Indicates the result is at or greater than ten times the ISV, a sign that subsurface vapor intrusion may be a concern.
Red text Emphasizes results that are greater than 100 times the ISV, which raises concern for vapor intrusion into structures.

WCEC BORING LOGS

Soil Boring Logs
MDH Well Sealing Record
WCEC Standard Methodologies

WCEC SOIL BORING LOG

MPCA LEAK NUMBER:		BORING #:	**B-1**
WCEC PROJECT NUMBER:	**9586**	DATE:	**7/17/2013**
PROJECT NAME:	**Princeton EDA Phase II**	TIME -start:	**15:05**
DRILLER:	**Matrix, Robert Gidding**	-end:	**16:20**
DRILLING METHOD:	**Push Probe**	RELATIVE SURFACE ELEVATION:	**97.07**
CONSULTANT ON-SITE	**WCEC, Gregory Frank**	GPS	

Depth (feet)	Sampling Information T	A	R	B	N	ASTM	Material Description	Geologic Origin	WL	PID (ppm)	Sample Analysis	Lithology symbol
0	MS					SW	0-1 ft. Brown fine to medium sand, poorly sorted, organic matter at the top, dry, no odor			<1		
							0-4 ft Limited recovery, only top 1 ft. of soil recovered					
	MS					SW	4-6 ft. Brown fine to medium sand poorly sorted, trace organic matter, large root at the bottom.			<1		
5												
							4-8 ft. Limited recovery only top 2 ft. (4-6) recovered			<1		
	MS					SP	8-10 ft. Fine to coarse sand, sorted, occasional tree root.			<1		
10												
							10-12 ft. Limited recovery only top 2 ft. (8-10) recovered.			<1		
	MS					SP-SW	12-13 ft. Brown fine to medium sand, some sorting, damp					
						SW	13-17 ft. Light tan medium to coarse sand, poorly sorted, damp			<1		
15												
	MS									<1		
						SP	17-18 ft. Brown fine to medium sand, some small roots, damp, sorted			<1		
						SW	18-24 ft. Light tan, medium to coarse sand, poorly sorted					
20	MS									<1		
										<1		
										<1		
25	MS					SW	24-29 ft. Tan, medium to coarse sand, poorly sorted. Wet at 27 ft. (ground water)					

Water Level Measurements		
Date	Time	Elapsed Time
7/17/2013	**16:27**	**17 mins**
Water Level	Product Level	
24.87	**NA**	

Comments

EOB = End of Boring, 32 feet below surface grade
Observed water level at 27 feet below grade.
Soil samples collected at 27 and 32 feet.
Water level taken after ground water sample was collected

Key

Lithology:
Fill
Topsoil
Sand and Gravel
Sand
Silty Sand
Silt
Sandy Clay
Silty Clay
Clay
No Recovery/Sluff

Other:
Screened interval for temporary well

Sampling Info:
T = sample type
A = attempt
R = recovery
B = blow count
N = N value

Definitions:
WL = Water Level
Elapsed time = time between end of drilling & sampling.

Sample Types:
MS = macro
LB = large bore
DT = Dual Tube
SP15 = Screen point
HA = hand auger
SS = split spoon

Analysis:
LS = lab soil sample
LW = lab water sample
D = Discrete
C = Composite

Observed Water Table
Measured Water Table

WCEC SOIL BORING LOG (Continued)

MPCA LEAK NUMBER:		BORING #:	**B-1**
WCEC PROJECT NUMBER:	**9586**	DATE:	**7/17/2013**
PROJECT NAME:	**Princeton EDA Phase II**	TIME -start:	**15:05**
DRILLER:	**Matrix, Robert Gidding**	-end:	**16:20**
DRILLING METHOD:	**Push Probe**	RELATIVE SURFACE ELEVATION:	**97.07**
CONSULTANT ON-SITE	**WCEC, Gregory Frank**	GPS	

Depth (feet)	Sampling Information T	A	R	B	N	ASTM	Material Description	Geologic Origin	WL	PID (ppm)	Sample Analysis	Lithology symbol
25	MS					SW	24-29 ft. Tan, medium to coarse sand, poorly sorted. Wet at 27 ft. (ground water)			<1		
											LS	
	MS									<1		
						GP	29-29.5 ft. Coarse sand and gravel, tr. - little small to large gravel, varied lithology.					
30						SP-SW	29.5-32 ft. Fine to medium sand some sorting, no odor			<1		
										<1	LS	
							EOB					
35	DT											
40	DT											
45	DT											
50												

Water Level Measurements

Date	Time	Elapsed Time
7/17/2013	**16:27**	**17 mins**

Water Level	Product Level
24.87	**NA**

Comments

EOB = End of Boring, 32 feet below surface grade
Observed water level at 27 feet below grade.
Soil samples collected at 27 and 32 feet.
Water level taken after ground water sample was collected

Key

Lithology:
Fill
Topsoil
Sand and Gravel
Sand
Silty Sand
Silt
Sandy Clay
Silty Clay
Clay
No Recovery/Sluff

Sampling Info:
T = sample type
A = attempt
R = recovery
B = blow count
N = N value

Definitions:
WL = Water Level
Elapsed time = time between end of drilling & sampling.

Sample Types:
MS = macro
LB = large bore
DT = Dual Tube
SP15 = Screen point
HA = hand auger
SS = split spoon

Analysis:
LS = lab soil sample
LW = lab water sample
D = Discrete
C = Composite

Other:
Screened interval for temporary well
Observed Water Table
Measured Water Table

WCEC SOIL BORING LOG

MPCA LEAK NUMBER:		BORING #:	**B-2**
WCEC PROJECT NUMBER:	**9586**	DATE:	**7/17/2013**
PROJECT NAME:	**Princeton EDA Phase II**	TIME -start:	**7:55**
DRILLER:	**Matrix, Robert Gidding**	-end:	**9:10**
DRILLING METHOD:	**Push Probe**	RELATIVE SURFACE ELEVATION:	**97.56**
CONSULTANT ON-SITE	**WCEC, Gregory Frank**	GPS	

Depth (feet)	Sampling Information T	A	R	B	N	ASTM	Material Description	Geologic Origin	WL	PID (ppm)	Sample Analysis	Lithology symbol
0												
	MS					SW	0-9.5 ft. Light brown to tan, fine to medium sand, poorly sortd, no odor, noncohesive. Top 6 inches organic matter present. Damp at 7 ft.			<1		
										<1		
										<1		
	MS											
5												
										<1		
										<1		
	MS											
10						SW-SP	9.5-12 ft. Light brown, medium to coarse sand, some sorting, noncohesive, wet (not ground water). At 10 ft. small 2 inch layer of dark brown, sandy silt, plastic, cohesive, no odor.			<1		
										<1		
	MS					SP	12-17 ft. Sand fine to coarse sorted, damp to wet, no odor.					
										<1		
15												
										<1		
	MS											
						SW	17-21 ft. Medium to coarse sand, occasional small gravel, poorly sorted, damp, noncohesive.			<1		
20										<1		
	MS											
						SP-SW	21-22.5 ft. Brown fine to medium sand, wet, some sorting			<1		
						SW	22.5-24 Coarse sand, poorly sorted, damp					
										<1		
	MS					SP-SW	24-25.5 ft Brown fine to medium sand, some sorting					
25												

Water Level Measurements		
Date	Time	Elapsed Time
4/26/2013	**8:10**	**~18.5 hrs**
Water Level	Product Level	
14.63	**NA**	

Comments

EOB = End of Boring, 32 feet below surface grade
Observed water level was 28 feet below grade.
Soil sample collected at 28 and 32 ft.
Water level taken after ground water sample was collected

Key

Lithology:
Fill
Topsoil
Sand and Gravel
Sand
Silty Sand
Silt
Sandy Clay
Silty Clay
Clay
No Recovery/Sluff

Sampling Info:
T = sample type
A = attempt
R = recovery
B = blow count
N = N value

Definitions:
WL = Water Level
Elapsed time = time between end of drilling & sampling.

Sample Types:
MS = macro
LB = large bore
DT = Dual Tube
SP15 = Screen point
HA = hand auger
SS = split spoon

Analysis:
LS = lab soil sample
LW = lab water sample
D = Discrete
C = Composite

Other:
Screened interval for temporary well

Observed Water Table
Measured Water Table

WCEC SOIL BORING LOG (Continued)

MPCA LEAK NUMBER:		BORING #:	**B-2**
WCEC PROJECT NUMBER:	**9586**	DATE:	**7/17/2013**
PROJECT NAME:	**Princeton EDA Phase II**	TIME -start:	**7:55**
DRILLER:	**Matrix, Robert Gidding**	-end:	**9:10**
DRILLING METHOD:	**Push Probe**	RELATIVE SURFACE ELEVATION:	**97.56**
CONSULTANT ON-SITE	**WCEC, Gregory Frank**	GPS	

Depth (feet)	Sampling Information T	A	R	B	N	ASTM	Material Description	Geologic Origin	WL	PID (ppm)	Sample Analysis	Lithology symbol
25												
						SP-SW	24-25.5 ft Brown fine to medium sand, some sorting					
						SP	25.5-28 ft. Coarse sand. Saturated at 28 ft., ground water.			<1		
										<1	LS	
	MS					SP-SW	28-32 ft. Medium to coarse sand, some sorting, water saturated.					
30										<1		
										<1	LS	
							EOB					
35	DT											
40	DT											
45	DT											
50												

Water Level Measurements		
Date	Time	Elapsed Time
7/17/2013	**9:17**	**7 mins**
Water Level	Product Level	
21.23	**NA**	

Comments

EOB = End of Boring, 32 feet below surface grade
Observed water level was 28 feet below grade.
Soil sample collected at 28 and 32 ft.
Water level taken after ground water sample was collected

Key

Lithology:
Fill
Topsoil
Sand and Gravel
Sand
Silty Sand
Silt
Sandy Clay
Silty Clay
Clay
No Recovery/Sluff

Sampling Info:
T = sample type
A = attempt
R = recovery
B = blow count
N = N value

Definitions:
WL = Water Level
Elapsed time = time between end of drilling & sampling.

Sample Types:
MS = macro
LB = large bore
DT = Dual Tube
SP15 = Screen point
HA = hand auger
SS = split spoon

Analysis:
LS = lab soil sample
LW = lab water sample
D = Discrete C = Composite

Other:
Screened interval for temporary well

Observed Water Table
Measured Water Table

WCEC SOIL BORING LOG

MPCA LEAK NUMBER:		BORING #:	**B-3**
WCEC PROJECT NUMBER:	**9586**	DATE:	**7/17/2013**
PROJECT NAME:	**Princeton EDA Phase II**	TIME -start:	**10:15**
DRILLER:	**Matrix, Robert Gidding**	-end:	**11:00**
DRILLING METHOD:	**Push Probe**	RELATIVE SURFACE ELEVATION:	**98.38**
CONSULTANT ON-SITE	**WCEC, Gregory Frank**	GPS	

Depth (feet)	Sampling Information T	A	R	B	N	ASTM	Material Description	Geologic Origin	WL	PID (ppm)	Sample Analysis	Lithology symbol
0												
	MS					SW	0-2 ft. Brown fine to medium sand, tr. to little organic matter, little gravel, poorly sorted.			<1		
										<1		
							2-4 ft. Light brown fine to medium sand poorly sorted, no gravel, no organic matter.					
						SW						
										<1		
	MS						4-11 ft. Fine to coarse sand, some sorting, damp, thin dark brown layers, no odor.					
5						SW						
										<1		
										<1		
	MS											
10										<1		
							11-12 ft. Fine sand, sorted, damp, no odor					
										<1		
	MS						12-13 ft. Coarse sand, sorted					
							13-14 ft. Fine to medium sand well sorted.					
										<1		
							14-16 ft. Medium to coarse sand, some sorting, noncohesive, no odor damp					
15						SP SW						
										<1		
	MS						16-18 ft. Fine to medium sand, at 18 ft. some damp small stones, sorted					
										<1		
						SW	18-20 ft. Med to coarse sand, some sorting, damp					
20										<1		
	MS						20-24 ft. fine to coarse sand some sorting, no odor, damp.					
										<1		
										<1		
	MS						24-26 ft. Fine to medium sand, some coarse sand, damp, darker than the material above, some sorting.					
25												

Water Level Measurements

Date	Time	Elapsed Time
7/17/2013	**11:15**	**15 mins**

Water Level	Product Level
27.07	**NA**

Comments

EOB = End of Boring, 32 feet below surface grade,
Observed water level at 27 feet below grade.
Soil sample collected at 27 & 32 feet.
Water level taken after ground water sample was collected

Key

Lithology:
Fill
Topsoil
Sand and Gravel
Sand
Silty Sand
Silt
Sandy Clay
Silty Clay
Clay
No Recovery/Sluff

Sampling Info:
T = sample type
A = attempt
R = recovery
B = blow count
N = N value

Definitions:
WL = Water Level
Elapsed time = time between end of drilling & sampling.

Sample Types:
MS = macro
LB = large bore
DT = Dual Tube
SP15 = Screen point
HA = hand auger
SS = split spoon

Analysis:
LS = lab soil sample
LW = lab water sample
D = Discrete
C = Composite

Other:
Screened interval for temporary well
Observed Water Table
Measured Water Table

WCEC SOIL BORING LOG (Continued)

MPCA LEAK NUMBER:	**18976**	BORING #:	**SB-4**
WCEC PROJECT NUMBER:	**9570**	DATE:	**4/25/2013**
PROJECT NAME:	**Former Tank Farm, Park Rapids**	TIME -start:	**15:00**
DRILLER:	**WCEC, Eric Asche**	-end:	**15:50**
DRILLING METHOD:	**Push Probe**	RELATIVE SURFACE ELEVATION:	**97.89**
CONSULTANT ON-SITE	**WCEC, Gregory Frank**	GPS	**46° 55' 14.12" N 95° 03' 14.12" W**

Depth (feet)	Sampling Information T	A	R	B	N	ASTM	Material Description	Geologic Origin	WL	PID (ppm)	Sample Analysis	Lithology symbol
25												
							24-26 ft. Fine to medium sand, some coarse sand, damp, darker than the material above.			<1		
							26-32 ft. Medium to coarse sand, some sorting, lighter in color. Ground water at 27 ft.				LS	
	MS									<1		
30										<1		
							EOB			<1	LS	
35												
40												
45												
50												

evel Measurements

Date	Time	Elapsed Time
7/17/2013	**11:15**	**15 mins**

Water Level	Product Level
27.07	**NA**

Comments

EOB = End of Boring, 32 feet below surface grade,
Observed water level at 27 feet below grade.
Soil sample collected at 27 & 32 feet.
Water level taken after ground water sample was collected

Key

Lithology:
Fill
Topsoil
Sand and Gravel
Sand
Silty Sand
Silt
Sandy Clay
Silty Clay
Clay
No Recovery/Sluff

Sampling Info:
T = sample type
A = attempt
R = recovery
B = blow count
N = N value

Definitions:
WL = Water Level
Elapsed time = time between end of drilling & sampling.

Sample Types:
MS = macro
LB = large bore
DT = Dual Tube
SP15 = Screen point
HA = hand auger
SS = split spoon

Analysis:
LS = lab soil sample
LW = lab water sample
D = Discrete
C = Composite

Other:
Screened interval for temporary well
Observed Water Table
Measured Water Table

WCEC SOIL BORING LOG

MPCA LEAK NUMBER:		BORING #:	**B-4**
WCEC PROJECT NUMBER:	**9586**	DATE:	**7/17/2013**
PROJECT NAME:	**Princeton EDA Phase II**	TIME -start:	**13:15**
DRILLER:	**Matrix, Robert Gidding**	-end:	**14:35**
DRILLING METHOD:	**Push Probe**	RELATIVE SURFACE ELEVATION:	**98.14**
CONSULTANT ON-SITE	**WCEC, Gregory Frank**	GPS	

Depth (feet)	Sampling Information T	A	R	B	N	ASTM	Material Description	Geologic Origin	WL	PID (ppm)	Sample Analysis	Lithology symbol
0	MS						0-1 ft. fine to medium sand with little gravel, organic matter present, poorly sorted			<1		
							1-4 ft. Brown fading to light brown, fine to medium sand, some sorting, no odor.			<1		
										<1		
5	MS						4-6 ft. Medium sand damp					
							6-11 ft. Fine to medium sand, some sorting, dark brown thin layers, no odor, damp			<1		
	MS									<1		
10										<1		
							11-12 ft. Medium to coarse sand, poorly sorted, no odor, damp			<1		
	MS						12-13 ft. Fine to medium sand sorted.					
							13-16 ft. Medium to coarse sand, poorly sorted, no odor, damp			<1		
15										<1		
	MS						16-17 ft. Fine to medium sand, sorted, damp					
							17-20 ft. Medium to coarse sand, poorly sorted, damp			<1		
20	MS						20-23 ft. Fine to medium sand sorted, medium sand from 20-22 ft, fine sand from 22-23 feet.			<1		
							23-24 ft. Coarse sand and gravel. Gravel layer about 3-6 inches thick coarse sand after.			<1		
25	MS						24-26 ft. Medium to tine fine sorted					

Water Level Measurements

Date	Time	Elapsed Time
7/17/2013	**14:48**	**13 Min**

Water Level	Product Level
26.79	**NA**

Comments

EOB = End of Boring, 32 feet below surface grade
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Water level taken after ground water sample was collected

Key

Lithology:
Fill
Topsoil
Sand and Gravel
Sand
Silty Sand
Silt
Sandy Clay
Silty Clay
Clay
No Recovery/Sluff

Sampling Info:
T = sample type
A = attempt
R = recovery
B = blow count
N = N value

Definitions:
WL = Water Level
Elapsed time = time between end of drilling & sampling

Sample Types:
MS = macro
LB = large bore
DT = Dual Tube
SP15 = Screen point
HA = hand auger
SS = split spoon

Analysis:
LS = lab soil sample
LW = lab water sample
D = Discrete C = Composite

Other:
Screened interval for temporary well
Observed Water Table
Measured Water Table

WCEC SOIL BORING LOG (Continued)

MPCA LEAK NUMBER:		BORING #:	**B-4**
WCEC PROJECT NUMBER:	**9586**	DATE:	**7/17/2013**
PROJECT NAME:	**Princeton EDA Phase II**	TIME -start:	**13:15**
DRILLER:	**Matrix, Robert Gidding**	-end:	**14:35**
DRILLING METHOD:	**Push Probe**	RELATIVE SURFACE ELEVATION:	**98.14**
CONSULTANT ON-SITE	**WCEC, Gregory Frank**	GPS	

Depth (feet)	Sampling Information T	A	R	B	N	ASTM	Material Description	Geologic Origin	WL	PID (ppm)	Sample Analysis	Lithology symbol
25							24-26 ft. Medium to fine sorted sands			<1		
							26-28 ft. Medium to coarse sand, some sorting, little to some small to large gravel. Wet at 27 ft. Ground water			<1		
	MS						28-32 ft. Fine to coarse sand, some sorting, water saturated, no odor			<1		
30										<1		
							EOB					
35	DT											
40	DT											
45	DT											
50												

Water Level Measurements

Date	Time	Elapsed Time
7/17/2013	**14:48**	**13 Min**

Water Level	Product Level
26.79	**NA**

Comments

EOB = End of Boring, 32 feet below surface grade
Observed water level at 27 feet below grade.
Soil sample collected at 27 and 32 feet.
Water level taken after ground water sample was collected

Key

Lithology:
Fill
Topsoil
Sand and Gravel
Sand
Silty Sand
Silt
Sandy Clay
Silty Clay
Clay
No Recovery/Sluff

Sampling Info:
T = sample type
A = attempt
R = recovery
B = blow count
N = N value

Definitions:
WL = Water Level
Elapsed time = time between end of drilling & sampling

Sample Types:
MS = macro
LB = large bore
DT = Dual Tube
SP15 = Screen point
HA = hand auger
SS = split spoon

Analysis:
LS = lab soil sample
LW = lab water sample
D = Discrete C = Composite

Other:
Screened interval for temporary well

Observed Water Table
Measured Water Table

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING SEALING RECORD

Minnesota Statutes, Chapter 103I

Minnesota Well and Boring Sealing No.
Minnesota Unique Well No. or W-series No.
(Leave blank if not known)

H 313427

WELL OR BORING LOCATION

County Name: Mille Lacs

Township Name	Township No.	Range No.	Section No.	Fraction (sm. → lg.)
	36N	26W	28	SWNE¼

GPS LOCATION: Latitude_____ degrees_____ minutes_____ seconds
Longitude_____ degrees_____ minutes_____ seconds

Numerical Street Address or Fire Number and City of Well or Boring Location: 603 9th Ave N, Princeton

Show exact location of well or boring in section grid with "X." NA

N, W, E, S, ½ Mile, 1 Mile

Sketch map of well or boring location, showing property lines, roads, and buildings.

9th Ave N, Rum River

PROPERTY OWNER'S NAME/COMPANY NAME: City of Princeton EDA

Property owner's mailing address if different than well location address indicated above:
705 Second St. N
Princeton, MN 55371

WELL OWNER'S NAME/COMPANY NAME: SAA

Well owner's mailing address if different than property owner's address indicated above: SAA

GEOLOGICAL MATERIAL	COLOR	HARDNESS OR FORMATION	FROM	TO
If not known, indicate estimated formation log from nearby well or boring.				
Fine-Med Sand	Br	mod	0	32

REMARKS, SOURCE OF DATA, DIFFICULTIES IN SEALING

IMPORTANT-FILE WITH PROPERTY PAPERS-WELL OWNER COPY

H 313427

Date Sealed: 7/17/13

Date Well or Boring Constructed: 7/17/13

Depth Before Sealing: 32 ft.

Original Depth: 32 ft.

AQUIFER(S): ☑ Single Aquifer ☐ Multiaquifer

WELL/BORING: ☐ Water-Supply Well ☑ Monit. Well Temp ☐ Env. Bore Hole ☐ Other

STATIC WATER LEVEL: ☐ Measured ☑ Estimated Date Measured 7/17/32
24 ft. ☐ below ☐ above land surface

CASING TYPE(S): ☑ Steel ☐ Plastic ☐ Tile ☐ Other

WELLHEAD COMPLETION

Outside: ☐ Well House ☐ At Grade ☐ Pitless Adapter/Unit ☐ Buried ☐ Well Pit ☐ Other

Inside: ☐ Basement Offset ☐ Well Pit ☐ Buried ☐ Other

NA

CASING(S)

Diameter	Depth	Set in oversize hole?	Annular space initially grouted?
in. from	to ft.	☐ Yes ☐ No	☐ Yes ☐ No ☐ Unknown
in. from	to ft.	☐ Yes ☐ No	☐ Yes ☐ No ☐ Unknown
in. from	to ft.	☐ Yes ☐ No	☐ Yes ☐ No ☐ Unknown

NA

SCREEN/OPEN HOLE

Screen from_____ to_____ ft. Open Hole from_____ to_____ ft. NA

OBSTRUCTIONS

☐ Rods/Drop Pipe ☐ Check Valve(s) ☐ Debris ☐ Fill ☑ No Obstruction

Type of Obstructions (Describe)_____

Obstructions removed? ☐ Yes ☐ No Describe_____

PUMP

Type_____

☐ Removed ☑ Not Present ☐ Other_____

METHOD USED TO SEAL ANNULAR SPACE BETWEEN 2 CASINGS, OR CASING AND BORE HOLE:

☑ No Annular Space Exists ☐ Annular Space Grouted with Tremie Pipe ☐ Casing Perforation/Removal

_____ in. from_____ to_____ ft. ☐ Perforated ☐ Removed

_____ in. from_____ to_____ ft. ☐ Perforated ☐ Removed

Type of Perforator_____

☐ Other_____

GROUTING MATERIAL(S) (One bag of cement = 94 lbs., one bag of bentonite = 50 lbs.)

Grouting Material: Bentonite Chips from 0 to 32 ft._____ yards 1 bags

_____ from_____ to_____ ft._____ yards_____ bags

_____ from_____ to_____ ft._____ yards_____ bags

OTHER WELLS AND BORINGS

Other unsealed and unused well or boring on property? ☐ Yes ☐ No How many?_____

LICENSED OR REGISTERED CONTRACTOR CERTIFICATION

This well or boring was sealed in accordance with Minnesota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge.

Matrix Environmental, LLC — 1916
Licensee Business Name — *License or Registration No.*

Dan Thompson — 1200 — 7/23/13
Certified Representative Signature — *Certified Rep. No.* — *Date*

Seth Giddings
Name of Person Sealing Well or Boring

HE-01434-13 IC# 140-0423 5/12R

INVESTIGATION METHODOLOGIES

Geoprobe® Sampling

WCEC uses the Geoprobe Systems® soil sampling method. There are various available soil sampling methods with this system, including: large-bore, macro-core, and dual tube.

Soil Sampling – General
The large-bore sampling device is 2' long and has a 1.375" outside diameter (OD); it is driven by a hydraulic drive/push hammer. Depth is obtained by threading hollow drive rods (3' long x 0.75" OD) on top of the large-bore sampler. Unlike split-spoon samplers, the large-bore sampler remains completely sealed while it is advanced to the desired sampling interval. Once at the desired depth, a stop-pin at the top end of the large-bore sampler is removed to allow soil to be collected as the sampler is driven the additional two feet. The sample is retained in a clear plastic liner (2' long x 1.0625" OD), which is inside of the large-bore sampler. These liners are replaced after each sample is obtained to prevent contamination carryover.

The macro-core sampler (4' long x 2" OD) also uses a clear plastic liner and can be used to perform continuous sampling by connecting probe rods together until the bottom of the sampler reaches the desired sampling interval. This sampler does not have a closed drive end, so it may be susceptible to borehole scraping and soil mixing in some settings.

The dual tube sampler (4' long x 2.125" OD) also uses a clear plastic liner and can be used to perform continuous sampling. The dual tube method collects continuous cores through a cased probe hole, providing additional security of the sample from cross contamination. It also allows collection of a soil sample from a discrete depth, and eliminates borehole side slough. This technique has advantages for groundwater sample collection, also. Additional work is required during probe rod decontamination to result in the greatest benefits form use of this technique, so it is generally reserved for sensitive sampling settings.

To lessen the possibility of sample contamination from hole caving, a few inches of soil at each end of the sample are discarded. The outside of the soil sample may also be scraped off to yield relatively undisturbed soil form the soil core's central portion. Soil for field and laboratory analysis (see below) is collected from the remaining material. The number and location of samples for analyses can vary depending on visual evidence such as observed contamination and soil texture and soil horizon structure.

Water Sampling
Water samples can be collected from Geoprobe® test holes using a variety of methodologies. A macro core sampler is initially used to open up the test hole. WCEC most commonly uses a stainless steel or plastic 1-inch OD x 48" screen which is inserted into the test hole. A 3/8 inch x 3 inch ID poly tubing is inserted into the screen. The water sample is either collected from a Tubing Check Valve or with a Peristaltic Pump. A plastic bailer may also be inserted into the screen to collect a groundwater sample. WCEC also utilizes the Groundwater Profiler, which enables vertical profiling of groundwater quality from discrete intervals using a sample point with a deployable screen that can be adjusted as to sampling interval.

Samples are collected in laboratory-supplied, test-specific glass sample containers. The actual

sample volume collected depends on the analytical parameter(s). Samples are logged onto a chain-of-custody form in the field, then stored and shipped at 4°C in an ice-filled cooler along with the chain-of-custody. Between sampling test holes, all equipment that is re-used is decontaminated in general conformance with "EPA Protocol B", as follows:

- Equipment is scrubbed in a solution of laboratory-grade detergent and water;
- Equipment is then triple rinsed with de-ionized water;
- The final rinse is preferably a running water rinse if field conditions allow.
- Samples of the final rinsate may be retained for laboratory analysis as a Quality Assurance measure

If applicable, new disposable poly-tubing is used for each test hole water sample. Wash water disposal is in accordance with applicable regulatory guidelines, as defined in the sampling plan**.**

After sampling, test holes are backfilled or grouted in accordance with Minnesota Department of Health (MDH) guidelines.

Soil Headspace Screening Procedure

Soil samples for on-site screening are placed in plastic, Ziplock®-style bags. Each bag is half-filled with soil and sealed. Headspace development proceeds for a minimum of 10 minutes; each bag is shaken for 15 seconds before and after this period. Field screening is performed with a photoionization detector (PID). To perform the field headspace screening, the PID probe is inserted through the plastic bag to a depth of approximately one-half of the total headspace, and maximum meter response over a period of approximately 5-15 seconds is recorded. When ambient temperatures are below the operating range of the instrument, headspace development and analysis is performed in a heated vehicle or building.

The PID is calibrated per manufacturer's recommendation, and calibration is confirmed while on site each morning, noon, and afternoon. Re-calibration is performed when PID response drifts from prescribed values, typically 5% of the reading range. Calibration utilizes ambient air to zero the instrument, followed by using a standard concentration of compressed isobutylene gas. The response factor is entered so that the PID is set to read parts-per-million volume/volume of benzene vapors. Additionally, the PID is recalibrated in the factory at manufacturer-conducted service intervals.

Laboratory Analysis of Soil and Water Samples

Soil and water samples are collected in laboratory-supplied, test-specific sample containers, then stored and shipped in ice-filled containers along with a chain of custody form(s). Laboratory tests are site-specific, but petroleum release sites usually include an analysis of benzene, ethyl-benzene, toluene, and xylene (BTEX), methyl tertiary butyl ether (MTBE), volatile organic compounds (VOCs), gasoline range organics (GRO), and/or diesel range organics (GRO), and possibly certain Resource Conservation and Recovery act (RCRA) Metals. Additional analyses have included tests for total hydrocarbons as gasoline (TPH-gas), total hydrocarbons as fuel oil (TPH-fuel), PCBs, or Polynuclear Aromatic Hydrocarbons (PAHs).

Agricultural chemical sites and Superfund-regulated sites have additional specific analytes that will be defined in the Work Plan and Sampling and Analysis Plan (SAP) for the site.

Estimation of Hydraulic Conductivity

Hydraulic conductivity may be calculated from controlled pump test data, slug test or other in-situ test data; in these cases the equipment used and calculation method is reported. Indirect measurement of hydraulic conductivity (K) includes lab testing of grain size distribution, in which

case the American Society of Testing and Materials (ASTM) standard method is cited, along with the data interpretation method (e.g. "Hazen Approximation") used to estimate K. Note that actual geologic materials are usually heterogeneous, and properties in naturally-deposited materials tend to vary widely. An order of magnitude (or more) variability can be encountered in common glacial materials found across a site. Therefore, elaborate, more direct means of measuring K is valuable primarily where precise K values are required at specific locations; site-wide estimations of K are adequate for generalized evaluation of groundwater movement on a majority of sites.

Another means of estimating the K value is to compare predominant soil texture (following the USCS and/or applicable ASTM engineering standard for textural classification) and composition in the light of site setting, then use empirical means to estimate K from published tables, charts, and nomographs. An example would be to determine a soil is a naturally occurring Till, which is predominantly sandy in texture, but with a broad distribution of particle sizes from clay and silt to coarse sand. The density of this Till would be estimated in qualitative manner, using the "N" values reported from the driller, or the relative probe penetration resistance, or penetrometer measurements taken in the field. This information would be compared against published ranges of K for common geologic materials, and reported along with the publication reviewed for deriving this information.

Vapor Sampling

The Post-Run Tubing System (PRT) in the Geoprobe® allows for the collection of soil vapor samples (commonly can include "fixed gases" such as oxygen, carbon dioxide, and methane) quickly and easily from desired depths. Volatile Organic Compounds (VOCs) associated with releases of halogenated hydrocarbons or petroleum release sites often require vapor intrusion investigations. An aluminum drive point attached to chemical resistant tubing is driven to a desired depth. Vapors are directly analyzed using a gas analysis field meter (GEM 500) designed to read vapors as they come out of the ground, or vapors are collected in a sample bag or passivated canister (Summa sample can) for future laboratory analysis. All tubing and drive points are replaced after each sample to eliminate sample carryover problems.

Risk Surveys and Receptor Risk Assessment

Regulatory programs specify the nature and scope of receptor risk surveys and risk assessments required, based on regulatory agency jurisdiction and contaminant type. WCEC adheres to the risk survey and assessment protocols promulgated by the applicable regulatory agency.

Risk surveys are a general, qualitative approach to evaluation of scenarios that could increase risk to a hypothetical or perceived receptor, in order to determine if a contaminant has a "pathway" to reach a potential receptor. Once the presence of a contaminant above a regulatory threshold is established, the survey seeks potential receptors that could be put at-risk. Receptors include humans that could contact contaminated soil, inhale soil dust or off-gassed vapor from impacted soil. Receptors can also include potable water aquifers that could receive leachate formed from precipitation percolating through impacted soil, water wells near a site with groundwater impacts, or surface water near a site with impacted groundwater or surface soil impacts. In addition, a structure with a subsurface component (house basement, utility pit) near impacted soil or in close proximity to groundwater VOC impacts may be a receptor of contaminant vapor. If no receptors are present, then the risk survey yields a negative finding; this means that further risk evaluation need not be completed. If a potential receptor is identified, then targeted assessment of the receptor risks projected for each exposure pathway is assessed following the regulatory guidelines.

Risk assessment evaluates the Site-specific and receptor-specific conditions to determine if conditions meet the following criteria indicative of elevated receptor risk:

1. The presence of a contaminant above a risk-based exposure threshold (concentration-based),
2. The presence of a receptor, based on land use, water use, or occupancy criteria, and
3. A complete pathway from contamination source to receptor

If these conditions appear to be met, then more detailed information may be required to determine if the receptor's exposure is above regulatory standards. In most cases, regulatory criteria establish conservative look-up values and apply receptor exposure assumptions derived to provide great protection to the receptor. These "Tier 1" and "default Tier 2" standards apply to a majority of cases.

In certain settings, the receptor risk assessment may require Site-specific criteria to protect receptors in a way that is more feasible. In such cases, a Site-specific conceptual site model (SCM) is defined, along with a receptor exposure scenario model for each receptor or receptor type. Toxicological data is used along with detailed Site information to calculate Site-specific action levels; Engineering Controls may be developed in order to develop a means to ensure a high level of confidence in the exposure assumptions to be used; in these cases, the proposed methodology for Site-specific criteria must be developed and proposed for Agency approval before the risk assessment is performed.

CALCULATION OF GROUNDWATER ISV's

The evaluation of risks associated with contaminated groundwater intrusion utilized calculated Intrusion Screening Values derived using Henrys Law. The concept is that dissolved volatile organic compounds (VOCs) in water within an enclosed space will volatilize and reach equilibrium in the air. This "closed box" estimate assumes the VOC source is not depleted as it off-gases into the air, and there would be no air flux (no leakage) out of the air space.

WCEC utilized the "EPA On-Line Tools for Site Assessment Calculation" tool to calculate groundwater ISVs for each VOC of concern. Assumptions considered average groundwater temperature of 10 C, and air temperature in the basement of about 15 C. Average Henry's Law coefficient (HCc) values were developed from these temperatures.

The groundwater ISV's shown in this report were calculated by dividing the **inhalation ISV** (promulgated by Minnesota Pollution Control Agency) by the HCc, using average values provided by both methods (Washington et. al. and OSWER) provided by the EPA online tool. The HCc used for Benzene and Toluene was 0.12, the HCc used for Chloroform was 0.075, a value of 0.15 was used for MTBE, ethylbenzene used a value of 0.14, m&p – Xylene used a value of 0.13, and o-Xylene used a value of 0.09 (these are dimensionless coefficients) for calculation purposes.

For further information regarding this tool, please visit the EPA web page using the link below:

http://www.epa.gov/athens/learn2model/part-two/onsite/esthenry.html

HAZEN APPROXIMATION FOR K

Summary of the method:

Hazen Method (Hazen, 1911): Empirical correlation for uniformly graded sands

Use with sands where d_{10} is 0.1 to 3.0 mm

$$K=C(d_{10})^2$$

Where, K = hydraulic conductivity (cm/s)

d_{10} = Effective grain size = grain-size diameter at which 10% by

weight are finer and 90% are coarser **(cm)**

C = is a (uniformity) coefficient based on

Very fine sand, poorly sorted	40-80
Fine sand with appreciable fines	40-80
Medium sand, well sorted	80-120
Coarse sand, poorly sorted	80-120
Coarse sand, well sorted, clean	120-150

The uniformity coefficient can be calculated as D_{60}/D_{10}

The following publications are commonly utilized for evaluation of geologic conditions and hydrogeologic parameters on petroleum release sites in Minnesota:

GROUNDWATER
R. Allen Freeze and John A. Cherry, authors
pub. 1979 by Prentice-Hall, Inc.

Groundwater & Wells (Third Edition)
Fletcher G. Driscoll
pub. 2008 by Johnson Screens

Groundwater Hydrology
David Keith Todd, author
pub. 1980 by John Wiley & Sons, Inc.

OTHER PUBLIC PUBLICATIONS:

In addition, the Minnesota Geologic Survey "GEOLOGIC ATLAS" for the subject county is utilized, and the applicable "HYROGEOLOGIC ATLAS" published by US Geologic Survey is utilized for regional information. Various "Special Atlas" series publications are often available, and are relied upon where information is applicable to a specific site setting. For information on parent materials and setting-specific morphology, the applicable USDA Soil Survey report may be used to interpret site findings, or for a range of soil physical parameters.

LABORATORY REPORTS

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

July 24, 2013

Mr. Steve Carlson
West Central Env. Consultants
11265 91st Ave. North
Maple Grove, MN 55369

RE: Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Dear Mr. Carlson:
Enclosed are the analytical results for sample(s) received by the laboratory on July 18, 2013. 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,

Diane J. Anderson

diane.anderson@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

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
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
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

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SAMPLE SUMMARY

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10235750001	**V-1**	Air	07/17/13 12:18	07/18/13 12:55
10235750002	**V-2**	Air	07/17/13 09:38	07/18/13 12:55
10235750003	**V-3**	Air	07/17/13 11:34	07/18/13 12:55
10235750004	**V-4**	Air	07/17/13 11:56	07/18/13 12:55

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SAMPLE ANALYTE COUNT

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10235750001	**V-1**	TO-15	CJR, DR1	61
10235750002	**V-2**	TO-15	DR1	61
10235750003	**V-3**	TO-15	DR1	61
10235750004	**V-4**	TO-15	DR1	61

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PROJECT NARRATIVE

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Method: **TO-15**
Description: TO15 MSV AIR
Client: WCEC
Date: July 24, 2013

General Information:
4 samples were analyzed for TO-15. All samples were received in acceptable condition with any exceptions noted below.

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

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

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

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

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

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: AIR/17832

R1: RPD value was outside control limits.

- DUP (Lab ID: 1484162)
  - Methylene Chloride

QC Batch: AIR/17844

R1: RPD value was outside control limits.

- DUP (Lab ID: 1484929)
  - n-Hexane

Additional Comments:

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PROJECT NARRATIVE

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Method: **TO-15**
Description: TO15 MSV AIR
Client: WCEC
Date: July 24, 2013

Sample Comments:

K3: The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).
- V-1 (Lab ID: 10235750001)

K2: The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).
- V-2 (Lab ID: 10235750002)

K3: The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).
- V-3 (Lab ID: 10235750003)

K1: The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).
- V-4 (Lab ID: 10235750004)

Analyte Comments:

QC Batch: AIR/17832

A3: The sample was analyzed by serial dilution.
- V-1 (Lab ID: 10235750001)
  - Benzene
  - m&p-Xylene
  - Naphthalene
  - Styrene
  - Toluene

E: Analyte concentration exceeded the calibration range. The reported result is estimated.
- V-1 (Lab ID: 10235750001)
  - Propylene
- V-4 (Lab ID: 10235750004)
  - Propylene

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

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ANALYTICAL RESULTS

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Sample: V-1 **Lab ID: 10235750001** Collected: 07/17/13 12:18 Received: 07/18/13 12:55 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**57.7**	ug/m3	0.69	1.44		07/19/13 19:36	67-64-1	
Benzene	**586**	ug/m3	37.4	115.2		07/23/13 00:09	71-43-2	A3
Benzyl chloride	ND	ug/m3	1.5	1.44		07/19/13 19:36	100-44-7	
Bromodichloromethane	ND	ug/m3	2.0	1.44		07/19/13 19:36	75-27-4	
Bromoform	ND	ug/m3	3.0	1.44		07/19/13 19:36	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.44		07/19/13 19:36	74-83-9	
1,3-Butadiene	ND	ug/m3	0.65	1.44		07/19/13 19:36	106-99-0	
2-Butanone (MEK)	**31.9**	ug/m3	0.86	1.44		07/19/13 19:36	78-93-3	
Carbon disulfide	**9.3**	ug/m3	0.91	1.44		07/19/13 19:36	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.92	1.44		07/19/13 19:36	56-23-5	
Chlorobenzene	ND	ug/m3	1.4	1.44		07/19/13 19:36	108-90-7	
Chloroethane	ND	ug/m3	0.78	1.44		07/19/13 19:36	75-00-3	
Chloroform	ND	ug/m3	1.4	1.44		07/19/13 19:36	67-66-3	
Chloromethane	ND	ug/m3	0.60	1.44		07/19/13 19:36	74-87-3	
Cyclohexane	ND	ug/m3	1.0	1.44		07/19/13 19:36	110-82-7	
Dibromochloromethane	ND	ug/m3	2.5	1.44		07/19/13 19:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.2	1.44		07/19/13 19:36	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.8	1.44		07/19/13 19:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.8	1.44		07/19/13 19:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.8	1.44		07/19/13 19:36	106-46-7	
Dichlorodifluoromethane	**1.9**	ug/m3	1.5	1.44		07/19/13 19:36	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.2	1.44		07/19/13 19:36	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.59	1.44		07/19/13 19:36	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.2	1.44		07/19/13 19:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.2	1.44		07/19/13 19:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.2	1.44		07/19/13 19:36	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.4	1.44		07/19/13 19:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.3	1.44		07/19/13 19:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.3	1.44		07/19/13 19:36	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.0	1.44		07/19/13 19:36	76-14-2	
Ethanol	**7.3**	ug/m3	0.55	1.44		07/19/13 19:36	64-17-5	
Ethyl acetate	ND	ug/m3	1.1	1.44		07/19/13 19:36	141-78-6	
Ethylbenzene	**40.3**	ug/m3	1.3	1.44		07/19/13 19:36	100-41-4	
4-Ethyltoluene	**13.7**	ug/m3	1.4	1.44		07/19/13 19:36	622-96-8	
n-Heptane	ND	ug/m3	1.2	1.44		07/19/13 19:36	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.2	1.44		07/19/13 19:36	87-68-3	
n-Hexane	**10.6**	ug/m3	1.0	1.44		07/19/13 19:36	110-54-3	
2-Hexanone	ND	ug/m3	1.2	1.44		07/19/13 19:36	591-78-6	
Methylene Chloride	**3.1**	ug/m3	1.0	1.44		07/19/13 19:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.2	1.44		07/19/13 19:36	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.44		07/19/13 19:36	1634-04-4	
Naphthalene	**19700**	ug/m3	123	115.2		07/23/13 00:09	91-20-3	A3
2-Propanol	ND	ug/m3	0.72	1.44		07/19/13 19:36	67-63-0	
Propylene	**127**	ug/m3	0.50	1.44		07/19/13 19:36	115-07-1	E
Styrene	**1340**	ug/m3	100	115.2		07/23/13 00:09	100-42-5	A3
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.0	1.44		07/19/13 19:36	79-34-5	
Tetrachloroethene	ND	ug/m3	0.99	1.44		07/19/13 19:36	127-18-4	

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ANALYTICAL RESULTS

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Sample: V-1 **Lab ID: 10235750001** Collected: 07/17/13 12:18 Received: 07/18/13 12:55 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		07/19/13 19:36	109-99-9	
Toluene	**1020**	ug/m3	88.7	115.2		07/23/13 00:09	108-88-3	A3
1,2,4-Trichlorobenzene	ND	ug/m3	2.2	1.44		07/19/13 19:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.6	1.44		07/19/13 19:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.79	1.44		07/19/13 19:36	79-00-5	
Trichloroethene	ND	ug/m3	0.79	1.44		07/19/13 19:36	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.6	1.44		07/19/13 19:36	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.3	1.44		07/19/13 19:36	76-13-1	
1,2,4-Trimethylbenzene	**95.7**	ug/m3	1.4	1.44		07/19/13 19:36	95-63-6	
1,3,5-Trimethylbenzene	**30.9**	ug/m3	1.4	1.44		07/19/13 19:36	108-67-8	
Vinyl acetate	ND	ug/m3	1.0	1.44		07/19/13 19:36	108-05-4	
Vinyl chloride	ND	ug/m3	0.37	1.44		07/19/13 19:36	75-01-4	
m&p-Xylene	**795**	ug/m3	203	115.2		07/23/13 00:09	179601-23-1	A3
o-Xylene	**87.2**	ug/m3	1.3	1.44		07/19/13 19:36	95-47-6	

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ANALYTICAL RESULTS

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Sample: V-2 **Lab ID: 10235750002** Collected: 07/17/13 09:38 Received: 07/18/13 12:55 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**83.3**	ug/m3	0.93	1.93		07/22/13 20:34	67-64-1	
Benzene	**8.3**	ug/m3	0.63	1.93		07/22/13 20:34	71-43-2	
Benzyl chloride	ND	ug/m3	2.0	1.93		07/22/13 20:34	100-44-7	
Bromodichloromethane	ND	ug/m3	2.6	1.93		07/22/13 20:34	75-27-4	
Bromoform	ND	ug/m3	4.1	1.93		07/22/13 20:34	75-25-2	
Bromomethane	ND	ug/m3	1.5	1.93		07/22/13 20:34	74-83-9	
1,3-Butadiene	ND	ug/m3	0.87	1.93		07/22/13 20:34	106-99-0	
2-Butanone (MEK)	**20.6**	ug/m3	1.2	1.93		07/22/13 20:34	78-93-3	
Carbon disulfide	**5.1**	ug/m3	1.2	1.93		07/22/13 20:34	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.2	1.93		07/22/13 20:34	56-23-5	
Chlorobenzene	ND	ug/m3	1.8	1.93		07/22/13 20:34	108-90-7	
Chloroethane	ND	ug/m3	1.0	1.93		07/22/13 20:34	75-00-3	
Chloroform	ND	ug/m3	1.9	1.93		07/22/13 20:34	67-66-3	
Chloromethane	ND	ug/m3	0.81	1.93		07/22/13 20:34	74-87-3	
Cyclohexane	**7.6**	ug/m3	1.4	1.93		07/22/13 20:34	110-82-7	
Dibromochloromethane	ND	ug/m3	3.3	1.93		07/22/13 20:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	3.0	1.93		07/22/13 20:34	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.4	1.93		07/22/13 20:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.4	1.93		07/22/13 20:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.4	1.93		07/22/13 20:34	106-46-7	
Dichlorodifluoromethane	**2.9**	ug/m3	1.9	1.93		07/22/13 20:34	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.6	1.93		07/22/13 20:34	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.79	1.93		07/22/13 20:34	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.6	1.93		07/22/13 20:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.6	1.93		07/22/13 20:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.6	1.93		07/22/13 20:34	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.8	1.93		07/22/13 20:34	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.8	1.93		07/22/13 20:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.8	1.93		07/22/13 20:34	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.7	1.93		07/22/13 20:34	76-14-2	
Ethanol	**17.3**	ug/m3	0.73	1.93		07/22/13 20:34	64-17-5	
Ethyl acetate	**9.9**	ug/m3	1.4	1.93		07/22/13 20:34	141-78-6	
Ethylbenzene	**6.6**	ug/m3	1.7	1.93		07/22/13 20:34	100-41-4	
4-Ethyltoluene	**5.7**	ug/m3	1.9	1.93		07/22/13 20:34	622-96-8	
n-Heptane	**8.9**	ug/m3	1.6	1.93		07/22/13 20:34	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	4.2	1.93		07/22/13 20:34	87-68-3	
n-Hexane	**16.2**	ug/m3	1.4	1.93		07/22/13 20:34	110-54-3	
2-Hexanone	ND	ug/m3	1.6	1.93		07/22/13 20:34	591-78-6	
Methylene Chloride	**66.3**	ug/m3	1.4	1.93		07/22/13 20:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.6	1.93		07/22/13 20:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.4	1.93		07/22/13 20:34	1634-04-4	
Naphthalene	**13.1**	ug/m3	2.1	1.93		07/22/13 20:34	91-20-3	
2-Propanol	ND	ug/m3	0.96	1.93		07/22/13 20:34	67-63-0	
Propylene	ND	ug/m3	0.68	1.93		07/22/13 20:34	115-07-1	
Styrene	**5.2**	ug/m3	1.7	1.93		07/22/13 20:34	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.3	1.93		07/22/13 20:34	79-34-5	
Tetrachloroethene	**5.7**	ug/m3	1.3	1.93		07/22/13 20:34	127-18-4	

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ANALYTICAL RESULTS

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Sample: V-2 **Lab ID: 10235750002** Collected: 07/17/13 09:38 Received: 07/18/13 12:55 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Tetrahydrofuran	ND	ug/m3	1.2	1.93		07/22/13 20:34	109-99-9	
Toluene	**16.9**	ug/m3	1.5	1.93		07/22/13 20:34	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.9	1.93		07/22/13 20:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	2.1	1.93		07/22/13 20:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.1	1.93		07/22/13 20:34	79-00-5	
Trichloroethene	ND	ug/m3	1.1	1.93		07/22/13 20:34	79-01-6	
Trichlorofluoromethane	ND	ug/m3	2.2	1.93		07/22/13 20:34	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	3.1	1.93		07/22/13 20:34	76-13-1	
1,2,4-Trimethylbenzene	**12.3**	ug/m3	1.9	1.93		07/22/13 20:34	95-63-6	
1,3,5-Trimethylbenzene	**4.9**	ug/m3	1.9	1.93		07/22/13 20:34	108-67-8	
Vinyl acetate	ND	ug/m3	1.4	1.93		07/22/13 20:34	108-05-4	
Vinyl chloride	ND	ug/m3	0.50	1.93		07/22/13 20:34	75-01-4	
m&p-Xylene	**16.6**	ug/m3	3.4	1.93		07/22/13 20:34	179601-23-1	
o-Xylene	**7.4**	ug/m3	1.7	1.93		07/22/13 20:34	95-47-6	

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ANALYTICAL RESULTS

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Sample: V-3 **Lab ID: 10235750003** Collected: 07/17/13 11:34 Received: 07/18/13 12:55 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**48.9**	ug/m3	0.72	1.49		07/19/13 20:37	67-64-1	
Benzene	**7.9**	ug/m3	0.48	1.49		07/19/13 20:37	71-43-2	
Benzyl chloride	ND	ug/m3	1.6	1.49		07/19/13 20:37	100-44-7	
Bromodichloromethane	ND	ug/m3	2.0	1.49		07/19/13 20:37	75-27-4	
Bromoform	ND	ug/m3	3.1	1.49		07/19/13 20:37	75-25-2	
Bromomethane	ND	ug/m3	1.2	1.49		07/19/13 20:37	74-83-9	
1,3-Butadiene	ND	ug/m3	0.67	1.49		07/19/13 20:37	106-99-0	
2-Butanone (MEK)	**19.4**	ug/m3	0.89	1.49		07/19/13 20:37	78-93-3	
Carbon disulfide	**2.8**	ug/m3	0.94	1.49		07/19/13 20:37	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.95	1.49		07/19/13 20:37	56-23-5	
Chlorobenzene	ND	ug/m3	1.4	1.49		07/19/13 20:37	108-90-7	
Chloroethane	ND	ug/m3	0.80	1.49		07/19/13 20:37	75-00-3	
Chloroform	ND	ug/m3	1.5	1.49		07/19/13 20:37	67-66-3	
Chloromethane	ND	ug/m3	0.63	1.49		07/19/13 20:37	74-87-3	
Cyclohexane	**4.7**	ug/m3	1.0	1.49		07/19/13 20:37	110-82-7	
Dibromochloromethane	ND	ug/m3	2.6	1.49		07/19/13 20:37	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.3	1.49		07/19/13 20:37	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.8	1.49		07/19/13 20:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.8	1.49		07/19/13 20:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.8	1.49		07/19/13 20:37	106-46-7	
Dichlorodifluoromethane	**2.1**	ug/m3	1.5	1.49		07/19/13 20:37	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.2	1.49		07/19/13 20:37	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.61	1.49		07/19/13 20:37	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.2	1.49		07/19/13 20:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.2	1.49		07/19/13 20:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.2	1.49		07/19/13 20:37	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.4	1.49		07/19/13 20:37	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.4	1.49		07/19/13 20:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.4	1.49		07/19/13 20:37	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.1	1.49		07/19/13 20:37	76-14-2	
Ethanol	ND	ug/m3	0.57	1.49		07/19/13 20:37	64-17-5	
Ethyl acetate	ND	ug/m3	1.1	1.49		07/19/13 20:37	141-78-6	
Ethylbenzene	**5.1**	ug/m3	1.3	1.49		07/19/13 20:37	100-41-4	
4-Ethyltoluene	**1.9**	ug/m3	1.5	1.49		07/19/13 20:37	622-96-8	
n-Heptane	**5.0**	ug/m3	1.2	1.49		07/19/13 20:37	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.3	1.49		07/19/13 20:37	87-68-3	
n-Hexane	**9.9**	ug/m3	1.1	1.49		07/19/13 20:37	110-54-3	
2-Hexanone	ND	ug/m3	1.2	1.49		07/19/13 20:37	591-78-6	
Methylene Chloride	**1.9**	ug/m3	1.1	1.49		07/19/13 20:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	**2.6**	ug/m3	1.2	1.49		07/19/13 20:37	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.49		07/19/13 20:37	1634-04-4	
Naphthalene	**43.3**	ug/m3	1.6	1.49		07/19/13 20:37	91-20-3	
2-Propanol	ND	ug/m3	0.74	1.49		07/19/13 20:37	67-63-0	
Propylene	ND	ug/m3	0.52	1.49		07/19/13 20:37	115-07-1	
Styrene	**3.7**	ug/m3	1.3	1.49		07/19/13 20:37	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.0	1.49		07/19/13 20:37	79-34-5	
Tetrachloroethene	**2.1**	ug/m3	1.0	1.49		07/19/13 20:37	127-18-4	

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ANALYTICAL RESULTS

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Sample: V-3 **Lab ID: 10235750003** Collected: 07/17/13 11:34 Received: 07/18/13 12:55 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Tetrahydrofuran	ND	ug/m3	0.89	1.49		07/19/13 20:37	109-99-9	
Toluene	**16.1**	ug/m3	1.1	1.49		07/19/13 20:37	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.2	1.49		07/19/13 20:37	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.49		07/19/13 20:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.82	1.49		07/19/13 20:37	79-00-5	
Trichloroethene	ND	ug/m3	0.82	1.49		07/19/13 20:37	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.7	1.49		07/19/13 20:37	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.4	1.49		07/19/13 20:37	76-13-1	
1,2,4-Trimethylbenzene	**9.6**	ug/m3	1.5	1.49		07/19/13 20:37	95-63-6	
1,3,5-Trimethylbenzene	**1.7**	ug/m3	1.5	1.49		07/19/13 20:37	108-67-8	
Vinyl acetate	ND	ug/m3	1.1	1.49		07/19/13 20:37	108-05-4	
Vinyl chloride	ND	ug/m3	0.39	1.49		07/19/13 20:37	75-01-4	
m&p-Xylene	**15.8**	ug/m3	2.6	1.49		07/19/13 20:37	179601-23-1	
o-Xylene	**5.9**	ug/m3	1.3	1.49		07/19/13 20:37	95-47-6	

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ANALYTICAL RESULTS

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Sample: V-4 **Lab ID: 10235750004** Collected: 07/17/13 11:56 Received: 07/18/13 12:55 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**73.8**	ug/m3	0.69	1.44		07/19/13 19:06	67-64-1	
Benzene	ND	ug/m3	0.47	1.44		07/19/13 19:06	71-43-2	
Benzyl chloride	ND	ug/m3	1.5	1.44		07/19/13 19:06	100-44-7	
Bromodichloromethane	ND	ug/m3	2.0	1.44		07/19/13 19:06	75-27-4	
Bromoform	ND	ug/m3	3.0	1.44		07/19/13 19:06	75-25-2	
Bromomethane	ND	ug/m3	1.1	1.44		07/19/13 19:06	74-83-9	
1,3-Butadiene	ND	ug/m3	0.65	1.44		07/19/13 19:06	106-99-0	
2-Butanone (MEK)	**24.1**	ug/m3	0.86	1.44		07/19/13 19:06	78-93-3	
Carbon disulfide	**8.7**	ug/m3	0.91	1.44		07/19/13 19:06	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.92	1.44		07/19/13 19:06	56-23-5	
Chlorobenzene	ND	ug/m3	1.4	1.44		07/19/13 19:06	108-90-7	
Chloroethane	ND	ug/m3	0.78	1.44		07/19/13 19:06	75-00-3	
Chloroform	ND	ug/m3	1.4	1.44		07/19/13 19:06	67-66-3	
Chloromethane	ND	ug/m3	0.60	1.44		07/19/13 19:06	74-87-3	
Cyclohexane	**3.6**	ug/m3	1.0	1.44		07/19/13 19:06	110-82-7	
Dibromochloromethane	ND	ug/m3	2.5	1.44		07/19/13 19:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.2	1.44		07/19/13 19:06	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.8	1.44		07/19/13 19:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.8	1.44		07/19/13 19:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.8	1.44		07/19/13 19:06	106-46-7	
Dichlorodifluoromethane	**2.0**	ug/m3	1.5	1.44		07/19/13 19:06	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.2	1.44		07/19/13 19:06	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.59	1.44		07/19/13 19:06	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.2	1.44		07/19/13 19:06	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.2	1.44		07/19/13 19:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.2	1.44		07/19/13 19:06	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.4	1.44		07/19/13 19:06	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.3	1.44		07/19/13 19:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.3	1.44		07/19/13 19:06	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.0	1.44		07/19/13 19:06	76-14-2	
Ethanol	ND	ug/m3	0.55	1.44		07/19/13 19:06	64-17-5	
Ethyl acetate	ND	ug/m3	1.1	1.44		07/19/13 19:06	141-78-6	
Ethylbenzene	**4.7**	ug/m3	1.3	1.44		07/19/13 19:06	100-41-4	
4-Ethyltoluene	**2.4**	ug/m3	1.4	1.44		07/19/13 19:06	622-96-8	
n-Heptane	**5.1**	ug/m3	1.2	1.44		07/19/13 19:06	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.2	1.44		07/19/13 19:06	87-68-3	
n-Hexane	**6.7**	ug/m3	1.0	1.44		07/19/13 19:06	110-54-3	
2-Hexanone	ND	ug/m3	1.2	1.44		07/19/13 19:06	591-78-6	
Methylene Chloride	**3.9**	ug/m3	1.0	1.44		07/19/13 19:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	1.2	1.44		07/19/13 19:06	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	1.1	1.44		07/19/13 19:06	1634-04-4	
Naphthalene	**15.3**	ug/m3	1.5	1.44		07/19/13 19:06	91-20-3	
2-Propanol	ND	ug/m3	0.72	1.44		07/19/13 19:06	67-63-0	
Propylene	**170**	ug/m3	0.50	1.44		07/19/13 19:06	115-07-1	E
Styrene	**3.8**	ug/m3	1.3	1.44		07/19/13 19:06	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.0	1.44		07/19/13 19:06	79-34-5	
Tetrachloroethene	ND	ug/m3	0.99	1.44		07/19/13 19:06	127-18-4	

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ANALYTICAL RESULTS

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Sample: V-4 **Lab ID: 10235750004** Collected: 07/17/13 11:56 Received: 07/18/13 12:55 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		07/19/13 19:06	109-99-9	
Toluene	**14.3**	ug/m3	1.1	1.44		07/19/13 19:06	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	2.2	1.44		07/19/13 19:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.6	1.44		07/19/13 19:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.79	1.44		07/19/13 19:06	79-00-5	
Trichloroethene	ND	ug/m3	0.79	1.44		07/19/13 19:06	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.6	1.44		07/19/13 19:06	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.3	1.44		07/19/13 19:06	76-13-1	
1,2,4-Trimethylbenzene	**12.1**	ug/m3	1.4	1.44		07/19/13 19:06	95-63-6	
1,3,5-Trimethylbenzene	**2.4**	ug/m3	1.4	1.44		07/19/13 19:06	108-67-8	
Vinyl acetate	ND	ug/m3	1.0	1.44		07/19/13 19:06	108-05-4	
Vinyl chloride	ND	ug/m3	0.37	1.44		07/19/13 19:06	75-01-4	
m&p-Xylene	**14.6**	ug/m3	2.5	1.44		07/19/13 19:06	179601-23-1	
o-Xylene	**5.7**	ug/m3	1.3	1.44		07/19/13 19:06	95-47-6	

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QUALITY CONTROL DATA

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

QC Batch: AIR/17832 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10235750001, 10235750003, 10235750004

METHOD BLANK: 1482711 Matrix: Air
Associated Lab Samples: 10235750001, 10235750003, 10235750004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	07/19/13 13:13	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	07/19/13 13:13	
1,1,2-Trichloroethane	ug/m3	ND	0.55	07/19/13 13:13	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	07/19/13 13:13	
1,1-Dichloroethane	ug/m3	ND	0.82	07/19/13 13:13	
1,1-Dichloroethene	ug/m3	ND	0.81	07/19/13 13:13	
1,2,4-Trichlorobenzene	ug/m3	ND	1.5	07/19/13 13:13	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	07/19/13 13:13	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	07/19/13 13:13	
1,2-Dichlorobenzene	ug/m3	ND	1.2	07/19/13 13:13	
1,2-Dichloroethane	ug/m3	ND	0.41	07/19/13 13:13	
1,2-Dichloropropane	ug/m3	ND	0.94	07/19/13 13:13	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	07/19/13 13:13	
1,3-Butadiene	ug/m3	ND	0.45	07/19/13 13:13	
1,3-Dichlorobenzene	ug/m3	ND	1.2	07/19/13 13:13	
1,4-Dichlorobenzene	ug/m3	ND	1.2	07/19/13 13:13	
2-Butanone (MEK)	ug/m3	ND	0.60	07/19/13 13:13	
2-Hexanone	ug/m3	ND	0.83	07/19/13 13:13	
2-Propanol	ug/m3	ND	0.50	07/19/13 13:13	
4-Ethyltoluene	ug/m3	ND	1.0	07/19/13 13:13	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	07/19/13 13:13	
Acetone	ug/m3	ND	0.48	07/19/13 13:13	
Benzene	ug/m3	ND	0.32	07/19/13 13:13	
Benzyl chloride	ug/m3	ND	1.0	07/19/13 13:13	
Bromodichloromethane	ug/m3	ND	1.4	07/19/13 13:13	
Bromoform	ug/m3	ND	2.1	07/19/13 13:13	
Bromomethane	ug/m3	ND	0.79	07/19/13 13:13	
Carbon disulfide	ug/m3	ND	0.63	07/19/13 13:13	
Carbon tetrachloride	ug/m3	ND	0.64	07/19/13 13:13	
Chlorobenzene	ug/m3	ND	0.94	07/19/13 13:13	
Chloroethane	ug/m3	ND	0.54	07/19/13 13:13	
Chloroform	ug/m3	ND	0.99	07/19/13 13:13	
Chloromethane	ug/m3	ND	0.42	07/19/13 13:13	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	07/19/13 13:13	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	07/19/13 13:13	
Cyclohexane	ug/m3	ND	0.70	07/19/13 13:13	
Dibromochloromethane	ug/m3	ND	1.7	07/19/13 13:13	
Dichlorodifluoromethane	ug/m3	ND	1.0	07/19/13 13:13	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	07/19/13 13:13	
Ethanol	ug/m3	ND	0.38	07/19/13 13:13	
Ethyl acetate	ug/m3	ND	0.73	07/19/13 13:13	
Ethylbenzene	ug/m3	ND	0.88	07/19/13 13:13	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	07/19/13 13:13	

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QUALITY CONTROL DATA

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

METHOD BLANK: 1482711 Matrix: Air

Associated Lab Samples: 10235750001, 10235750003, 10235750004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/m3	ND	1.8	07/19/13 13:13	
Methyl-tert-butyl ether	ug/m3	ND	0.73	07/19/13 13:13	
Methylene Chloride	ug/m3	ND	0.71	07/19/13 13:13	
n-Heptane	ug/m3	ND	0.83	07/19/13 13:13	
n-Hexane	ug/m3	ND	0.72	07/19/13 13:13	
Naphthalene	ug/m3	ND	1.1	07/19/13 13:13	
o-Xylene	ug/m3	ND	0.88	07/19/13 13:13	
Propylene	ug/m3	ND	0.35	07/19/13 13:13	
Styrene	ug/m3	ND	0.87	07/19/13 13:13	
Tetrachloroethene	ug/m3	ND	0.69	07/19/13 13:13	
Tetrahydrofuran	ug/m3	ND	0.60	07/19/13 13:13	
Toluene	ug/m3	ND	0.77	07/19/13 13:13	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	07/19/13 13:13	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	07/19/13 13:13	
Trichloroethene	ug/m3	ND	0.55	07/19/13 13:13	
Trichlorofluoromethane	ug/m3	ND	1.1	07/19/13 13:13	
Vinyl acetate	ug/m3	ND	0.72	07/19/13 13:13	
Vinyl chloride	ug/m3	ND	0.26	07/19/13 13:13	

LABORATORY CONTROL SAMPLE: 1482712

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	61.4	111	69-131	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	75.8	109	66-135	
1,1,2-Trichloroethane	ug/m3	55.5	59.0	106	68-132	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	75.5	97	65-130	
1,1-Dichloroethane	ug/m3	41.2	40.1	97	66-131	
1,1-Dichloroethene	ug/m3	40.3	38.5	96	64-136	
1,2,4-Trichlorobenzene	ug/m3	75.5	73.7	98	30-150	
1,2,4-Trimethylbenzene	ug/m3	50	50.5	101	71-135	
1,2-Dibromoethane (EDB)	ug/m3	78.1	86.0	110	72-132	
1,2-Dichlorobenzene	ug/m3	61.2	60.2	98	68-148	
1,2-Dichloroethane	ug/m3	41.2	44.0	107	66-136	
1,2-Dichloropropane	ug/m3	47	52.1	111	68-133	
1,3,5-Trimethylbenzene	ug/m3	50	51.1	102	69-136	
1,3-Butadiene	ug/m3	22.5	21.3	95	69-134	
1,3-Dichlorobenzene	ug/m3	61.2	60.0	98	70-134	
1,4-Dichlorobenzene	ug/m3	61.2	61.7	101	66-134	
2-Butanone (MEK)	ug/m3	30	29.9	100	69-141	
2-Hexanone	ug/m3	41.7	43.7	105	74-132	
2-Propanol	ug/m3	25	25.9	104	64-139	
4-Ethyltoluene	ug/m3	50	51.6	103	71-134	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	43.3	104	74-131	
Acetone	ug/m3	24.2	25.4	105	62-142	
Benzene	ug/m3	32.5	35.4	109	72-136	

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QUALITY CONTROL DATA

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

LABORATORY CONTROL SAMPLE: 1482712

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzyl chloride	ug/m3	52.5	51.0	97	70-134	
Bromodichloromethane	ug/m3	68.2	74.7	110	69-135	
Bromoform	ug/m3	105	111	105	72-133	
Bromomethane	ug/m3	39.5	37.1	94	65-125	
Carbon disulfide	ug/m3	31.7	31.9	101	68-127	
Carbon tetrachloride	ug/m3	64	72.3	113	64-133	
Chlorobenzene	ug/m3	46.8	52.7	113	65-135	
Chloroethane	ug/m3	26.8	25.0	93	63-129	
Chloroform	ug/m3	49.7	52.5	106	66-129	
Chloromethane	ug/m3	21	19.9	95	57-135	
cis-1,2-Dichloroethene	ug/m3	40.3	41.6	103	73-135	
cis-1,3-Dichloropropene	ug/m3	46.2	54.7	118	75-137	
Cyclohexane	ug/m3	35	35.0	100	73-139	
Dibromochloromethane	ug/m3	86.6	101	117	73-130	
Dichlorodifluoromethane	ug/m3	50.3	48.0	95	64-131	
Dichlorotetrafluoroethane	ug/m3	71.1	68.2	96	64-131	
Ethanol	ug/m3	19.2	17.0	89	62-134	
Ethyl acetate	ug/m3	36.6	38.2	104	73-136	
Ethylbenzene	ug/m3	44.2	47.3	107	74-136	
Hexachloro-1,3-butadiene	ug/m3	108	114	105	30-150	
m&p-Xylene	ug/m3	44.2	46.5	105	72-135	
Methyl-tert-butyl ether	ug/m3	36.7	39.5	108	71-134	
Methylene Chloride	ug/m3	35.3	32.5	92	59-140	
n-Heptane	ug/m3	41.7	42.9	103	73-136	
n-Hexane	ug/m3	35.8	36.0	100	67-136	
Naphthalene	ug/m3	53.3	51.9	97	30-150	
o-Xylene	ug/m3	44.2	46.5	105	74-135	
Propylene	ug/m3	17.5	17.9	102	66-138	
Styrene	ug/m3	43.3	44.2	102	73-135	
Tetrachloroethene	ug/m3	69	79.6	115	66-135	
Tetrahydrofuran	ug/m3	30	38.2	127	73-130	
Toluene	ug/m3	38.3	41.3	108	71-134	
trans-1,2-Dichloroethene	ug/m3	40.3	41.1	102	68-129	
trans-1,3-Dichloropropene	ug/m3	46.2	48.6	105	75-129	
Trichloroethene	ug/m3	54.6	64.0	117	68-134	
Trichlorofluoromethane	ug/m3	57.1	56.9	100	61-134	
Vinyl acetate	ug/m3	35.8	37.9	106	70-139	
Vinyl chloride	ug/m3	26	25.5	98	64-134	

SAMPLE DUPLICATE: 1484162

Parameter	Units	10235111006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	5.9	5.8	2	25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

SAMPLE DUPLICATE: 1484162

Parameter	Units	10235111006 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	10.0	10	.4	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	2.7	2.7	1	25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	8.8	8.7	.2	25	
2-Hexanone	ug/m3	ND	ND		25	
2-Propanol	ug/m3	5.9	6.4	9	25	
4-Ethyltoluene	ug/m3	2.2	2.3	3	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	49.3	48.7	1	25	
Benzene	ug/m3	8.2	8.1	1	25	
Benzyl chloride	ug/m3	ND	ND		25	
Bromodichloromethane	ug/m3	ND	1.8J		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	3.8	3.7	3	25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	73.7	73.0	.9	25	
Chloromethane	ug/m3	ND	ND		25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	11.1	11.2	.9	25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	5.5	5.3	3	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethanol	ug/m3	46.5	58.0	22	25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	10.2	10.0	2	25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	49.9	49.7	.5	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	1.5	3.0	63	25	R1
n-Heptane	ug/m3	9.2	9.3	1	25	
n-Hexane	ug/m3	9.6	9.9	3	25	
Naphthalene	ug/m3	4.8	4.9	2	25	
o-Xylene	ug/m3	16.0	15.9	.5	25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	4.7	ND		25	
Tetrachloroethene	ug/m3	89.3	88.4	1	25	

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QUALITY CONTROL DATA

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

SAMPLE DUPLICATE: 1484162

Parameter	Units	10235111006 Result	Dup Result	RPD	Max RPD	Qualifiers
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	19.4	19.5	.4	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	1.1	1.2	7	25	
Trichlorofluoromethane	ug/m3	1.8	1.7J		25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

QC Batch: AIR/17844 | Analysis Method: TO-15
QC Batch Method: TO-15 | Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10235750002

METHOD BLANK: 1484440 | Matrix: Air
Associated Lab Samples: 10235750002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	07/22/13 20:03	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	07/22/13 20:03	
1,1,2-Trichloroethane	ug/m3	ND	0.55	07/22/13 20:03	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	07/22/13 20:03	
1,1-Dichloroethane	ug/m3	ND	0.82	07/22/13 20:03	
1,1-Dichloroethene	ug/m3	ND	0.81	07/22/13 20:03	
1,2,4-Trichlorobenzene	ug/m3	ND	1.5	07/22/13 20:03	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	07/22/13 20:03	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	07/22/13 20:03	
1,2-Dichlorobenzene	ug/m3	ND	1.2	07/22/13 20:03	
1,2-Dichloroethane	ug/m3	ND	0.41	07/22/13 20:03	
1,2-Dichloropropane	ug/m3	ND	0.94	07/22/13 20:03	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	07/22/13 20:03	
1,3-Butadiene	ug/m3	ND	0.45	07/22/13 20:03	
1,3-Dichlorobenzene	ug/m3	ND	1.2	07/22/13 20:03	
1,4-Dichlorobenzene	ug/m3	ND	1.2	07/22/13 20:03	
2-Butanone (MEK)	ug/m3	ND	0.60	07/22/13 20:03	
2-Hexanone	ug/m3	ND	0.83	07/22/13 20:03	
2-Propanol	ug/m3	ND	0.50	07/22/13 20:03	
4-Ethyltoluene	ug/m3	ND	1.0	07/22/13 20:03	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	0.83	07/22/13 20:03	
Acetone	ug/m3	ND	0.48	07/22/13 20:03	
Benzene	ug/m3	ND	0.32	07/22/13 20:03	
Benzyl chloride	ug/m3	ND	1.0	07/22/13 20:03	
Bromodichloromethane	ug/m3	ND	1.4	07/22/13 20:03	
Bromoform	ug/m3	ND	2.1	07/22/13 20:03	
Bromomethane	ug/m3	ND	0.79	07/22/13 20:03	
Carbon disulfide	ug/m3	ND	0.63	07/22/13 20:03	
Carbon tetrachloride	ug/m3	ND	0.64	07/22/13 20:03	
Chlorobenzene	ug/m3	ND	0.94	07/22/13 20:03	
Chloroethane	ug/m3	ND	0.54	07/22/13 20:03	
Chloroform	ug/m3	ND	0.99	07/22/13 20:03	
Chloromethane	ug/m3	ND	0.42	07/22/13 20:03	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	07/22/13 20:03	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	07/22/13 20:03	
Cyclohexane	ug/m3	ND	0.70	07/22/13 20:03	
Dibromochloromethane	ug/m3	ND	1.7	07/22/13 20:03	
Dichlorodifluoromethane	ug/m3	ND	1.0	07/22/13 20:03	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	07/22/13 20:03	
Ethanol	ug/m3	ND	0.38	07/22/13 20:03	
Ethyl acetate	ug/m3	ND	0.73	07/22/13 20:03	
Ethylbenzene	ug/m3	ND	0.88	07/22/13 20:03	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	07/22/13 20:03	

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QUALITY CONTROL DATA

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

METHOD BLANK: 1484440 Matrix: Air

Associated Lab Samples: 10235750002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/m3	ND	1.8	07/22/13 20:03	
Methyl-tert-butyl ether	ug/m3	ND	0.73	07/22/13 20:03	
Methylene Chloride	ug/m3	ND	0.71	07/22/13 20:03	
n-Heptane	ug/m3	ND	0.83	07/22/13 20:03	
n-Hexane	ug/m3	ND	0.72	07/22/13 20:03	
Naphthalene	ug/m3	ND	1.1	07/22/13 20:03	
o-Xylene	ug/m3	ND	0.88	07/22/13 20:03	
Propylene	ug/m3	ND	0.35	07/22/13 20:03	
Styrene	ug/m3	ND	0.87	07/22/13 20:03	
Tetrachloroethene	ug/m3	ND	0.69	07/22/13 20:03	
Tetrahydrofuran	ug/m3	ND	0.60	07/22/13 20:03	
Toluene	ug/m3	ND	0.77	07/22/13 20:03	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	07/22/13 20:03	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	07/22/13 20:03	
Trichloroethene	ug/m3	ND	0.55	07/22/13 20:03	
Trichlorofluoromethane	ug/m3	ND	1.1	07/22/13 20:03	
Vinyl acetate	ug/m3	ND	0.72	07/22/13 20:03	
Vinyl chloride	ug/m3	ND	0.26	07/22/13 20:03	

LABORATORY CONTROL SAMPLE: 1484441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	57.3	103	69-131	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	68.0	97	66-135	
1,1,2-Trichloroethane	ug/m3	55.5	52.1	94	68-132	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	72.8	93	65-130	
1,1-Dichloroethane	ug/m3	41.2	40.7	99	66-131	
1,1-Dichloroethene	ug/m3	40.3	39.7	99	64-136	
1,2,4-Trichlorobenzene	ug/m3	75.5	84.3	112	30-150	
1,2,4-Trimethylbenzene	ug/m3	50	47.9	96	71-135	
1,2-Dibromoethane (EDB)	ug/m3	78.1	74.7	96	72-132	
1,2-Dichlorobenzene	ug/m3	61.2	57.2	94	68-148	
1,2-Dichloroethane	ug/m3	41.2	45.1	110	66-136	
1,2-Dichloropropane	ug/m3	47	46.3	99	68-133	
1,3,5-Trimethylbenzene	ug/m3	50	48.2	96	69-136	
1,3-Butadiene	ug/m3	22.5	22.4	99	69-134	
1,3-Dichlorobenzene	ug/m3	61.2	57.1	93	70-134	
1,4-Dichlorobenzene	ug/m3	61.2	56.7	93	66-134	
2-Butanone (MEK)	ug/m3	30	32.5	108	69-141	
2-Hexanone	ug/m3	41.7	41.6	100	74-132	
2-Propanol	ug/m3	25	27.1	109	64-139	
4-Ethyltoluene	ug/m3	50	47.7	95	71-134	
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	41.2	99	74-131	
Acetone	ug/m3	24.2	22.4	93	62-142	
Benzene	ug/m3	32.5	31.6	97	72-136	

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

LABORATORY CONTROL SAMPLE: 1484441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzyl chloride	ug/m3	52.5	49.8	95	70-134	
Bromodichloromethane	ug/m3	68.2	69.3	102	69-135	
Bromoform	ug/m3	105	101	96	72-133	
Bromomethane	ug/m3	39.5	36.2	92	65-125	
Carbon disulfide	ug/m3	31.7	29.2	92	68-127	
Carbon tetrachloride	ug/m3	64	69.2	108	64-133	
Chlorobenzene	ug/m3	46.8	45.2	96	65-135	
Chloroethane	ug/m3	26.8	25.7	96	63-129	
Chloroform	ug/m3	49.7	52.5	106	66-129	
Chloromethane	ug/m3	21	20.0	95	57-135	
cis-1,2-Dichloroethene	ug/m3	40.3	40.4	100	73-135	
cis-1,3-Dichloropropene	ug/m3	46.2	45.9	99	75-137	
Cyclohexane	ug/m3	35	33.3	95	73-139	
Dibromochloromethane	ug/m3	86.6	86.2	100	73-130	
Dichlorodifluoromethane	ug/m3	50.3	48.3	96	64-131	
Dichlorotetrafluoroethane	ug/m3	71.1	68.0	96	64-131	
Ethanol	ug/m3	19.2	19.4	101	62-134	
Ethyl acetate	ug/m3	36.6	36.5	100	73-136	
Ethylbenzene	ug/m3	44.2	43.4	98	74-136	
Hexachloro-1,3-butadiene	ug/m3	108	105	97	30-150	
m&p-Xylene	ug/m3	44.2	44.2	100	72-135	
Methyl-tert-butyl ether	ug/m3	36.7	39.7	108	71-134	
Methylene Chloride	ug/m3	35.3	36.8	104	59-140	
n-Heptane	ug/m3	41.7	40.0	96	73-136	
n-Hexane	ug/m3	35.8	35.9	100	67-136	
Naphthalene	ug/m3	53.3	50.4	95	30-150	
o-Xylene	ug/m3	44.2	44.0	100	74-135	
Propylene	ug/m3	17.5	17.7	101	66-138	
Styrene	ug/m3	43.3	41.6	96	73-135	
Tetrachloroethene	ug/m3	69	65.7	95	66-135	
Tetrahydrofuran	ug/m3	30	29.7	99	73-130	
Toluene	ug/m3	38.3	36.5	95	71-134	
trans-1,2-Dichloroethene	ug/m3	40.3	39.7	98	68-129	
trans-1,3-Dichloropropene	ug/m3	46.2	45.8	99	75-129	
Trichloroethene	ug/m3	54.6	52.0	95	68-134	
Trichlorofluoromethane	ug/m3	57.1	53.2	93	61-134	
Vinyl acetate	ug/m3	35.8	36.8	103	70-139	
Vinyl chloride	ug/m3	26	25.0	96	64-134	

SAMPLE DUPLICATE: 1484929

Parameter	Units	10235750002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

SAMPLE DUPLICATE: 1484929

Parameter	Units	10235750002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	12.3	12.1	1	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	4.9	5.1	4	25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	20.6	23.9	15	25	
2-Hexanone	ug/m3	ND	ND		25	
2-Propanol	ug/m3	ND	ND		25	
4-Ethyltoluene	ug/m3	5.7	6.3	10	25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	83.3	89.5	7	25	
Benzene	ug/m3	8.3	9.0	9	25	
Benzyl chloride	ug/m3	ND	ND		25	
Bromodichloromethane	ug/m3	ND	2.3J		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	5.1	5.4	6	25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	1.4J		25	
Chloromethane	ug/m3	ND	ND		25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	7.6	8.1	8	25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.9	3.3	13	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethanol	ug/m3	17.3	18.9	9	25	
Ethyl acetate	ug/m3	9.9	11.3	14	25	
Ethylbenzene	ug/m3	6.6	6.8	2	25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	16.6	16.9	2	25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	66.3	69.9	5	25	
n-Heptane	ug/m3	8.9	9.8	10	25	
n-Hexane	ug/m3	16.2	23.1	35	25	R1
Naphthalene	ug/m3	13.1	13.0	.4	25	
o-Xylene	ug/m3	7.4	7.5	2	25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	5.2	5.3	2	25	
Tetrachloroethene	ug/m3	5.7	5.8	2	25	

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(612)607-1700

QUALITY CONTROL DATA

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

SAMPLE DUPLICATE: 1484929

Parameter	Units	10235750002 Result	Dup Result	RPD	Max RPD	Qualifiers
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	16.9	18.1	7	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	ND	ND		25	
Trichlorofluoromethane	ug/m3	ND	1.8J		25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

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QUALIFIERS

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

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: 10235750001

[1] The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).

Sample: 10235750002

[1] The Total Hydrocarbon (THC) pattern occured in the second half of the chromatogram (after toluene).

Sample: 10235750003

[1] The Total Hydrocarbon (THC) pattern is evenly distributed throughout the chromatogram (before and after toluene).

Sample: 10235750004

[1] The Total Hydrocarbon (THC) pattern occured in the first half of the chromatogram (before toluene).

ANALYTE QUALIFIERS

A3	The sample was analyzed by serial dilution.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 9586 Princeton EDA Phase II
Pace Project No.: 10235750

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10235750001	**V-1**	TO-15	AIR/17832		
10235750002	**V-2**	TO-15	AIR/17844		
10235750003	**V-3**	TO-15	AIR/17832		
10235750004	**V-4**	TO-15	AIR/17832		

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AIR: CHAIN-OF-CUSTODY / Analytical Request Document

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

10235750

10675

Page: of

Section A Required Client Information:

Company: WCEC
Address: 11265 91st Ave. N.
Maple Grove MN 55369
Email To: ~~[illegible]~~ scarlson@wcec.com
Phone: 763-571-4544 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Steve Carlson
Copy To:
Purchase Order No.:
Project Name: Princeton EDA Phase II
Project Number: 9586

Section C Invoice Information:

Attention: Sheldon Giese
Company Name: WCEC
Address: 74 Green River Rd. Morris MN 56267
Pace Quote Reference:
Pace Project Manager/Sales Rep. Diane Anderson
Pace Profile #:

Program: ☐ UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other____

Location of Sampling by State _____

Reporting Units: ug/m³___ mg/m³___ PPBV___ PPMV___ Other___

Report Level II.___ III.___ IV.___ Other_____

Section D Required Client Information

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

ITEM #	AIR SAMPLE ID (Sample IDs MUST BE UNIQUE)	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START END/GRAB DATE	TIME	COMPOSITE - DATE	TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	Method: PM10	3C- Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15	TO15 Short List*	Pace Lab ID
1	V-1	6LC		7/17/13	8:18			-30	0	1510								✓			001
2	V-2		0.5		9:38			-30		0040								✓			002
3	V-3		1.8		11:34			-30		0268								✓			003
4	V-4		3.1		11:56			-30		0688								✓			004
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Greg Funk WCEC	7/18/13	9:00	AA / PACE 7/18	7/19/13	11:02
			[illegible] / PACE	7/18/13	1255

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Greg Funk

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY) 7/17/13

SAMPLE CONDITIONS

	Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N

ORIGINAL

1700 Elm Street SE, Suite 200, Minneapolis, MN 55414 Air Technical Phone: 612.607.6386

FC046Rev.01, 03Feb2010

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 28Jan2013 Page 1 of 1
	Document No.: F-MN-A-106-rev.07	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: WCEC

Project #: WO#: 10235750

10235750

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace ☐ Other: _____

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: _____

Temp. (TO17 and TO13 samples only) (°C): amb **Corrected Temp (°C):** _____ **Thermom. Used:** ☐ B88A912167504 ☐ 80542447 ☐ 72337080

Temp should be above freezing to 6°C **Correction Factor:** _____ **Date & Initials of Person Examining Contents:** DM 7/18/13

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

Samples Received:

Canisters		Flow Controllers		Stand Alone G	
Sample Number	Can ID	Sample Number	Can ID	Sample Number	Can ID
V-1	Pace 1510				
V-2	" 0040				
V-3	" 0268				
V-4	" 0689				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: DM **Date:** 7/18/13

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)

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20015.d
Report Date: 24-Jul-2013 12:28

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:
Lab Smp Id: 10235750001
Operator : DR1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 19-JUL-2013 19:36

Client SDG: 071913.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	2.854	667	J
2.	110-86-1	Pyridine	7.442	365	NJ
3.	109-06-8	Pyridine, 2-methyl-	8.953	192	NJ
4.	62-53-3	Aniline	12.620	94.1	NJ
5.	95-13-6	Indene	14.266	205	NJ
6.	2177-47-1	2-Methylindene	16.194	64.5	NJ
7.	767-59-9	1H-Indene, 1-methyl-	16.309	49.3	NJ
8.	270-82-6	2-Benzothiophene	17.017	95.4	NJ
9.	90-12-0	Naphthalene, 1-methyl-	18.552	129	NJ
10.	90-12-0	Naphthalene, 1-methyl-	18.860	69.2	NJ

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20015.d
Report Date: 24-Jul-2013 12:28

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\071913.b\20015.d
Lab Smp Id: 10235750001
Inj Date : 19-JUL-2013 19:36
Operator : DR1 Inst ID: 10airD.i
Smp Info :
Misc Info : 17832
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\071913.b\TO15_198-13.m
Meth Date : 19-Jul-2013 13:41 drandall Quant Type: ISTD
Cal Date : 17-JUL-2013 17:12 Cal File: 19819.d
Als bottle: 15
Dil Factor: 1.44000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.440	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

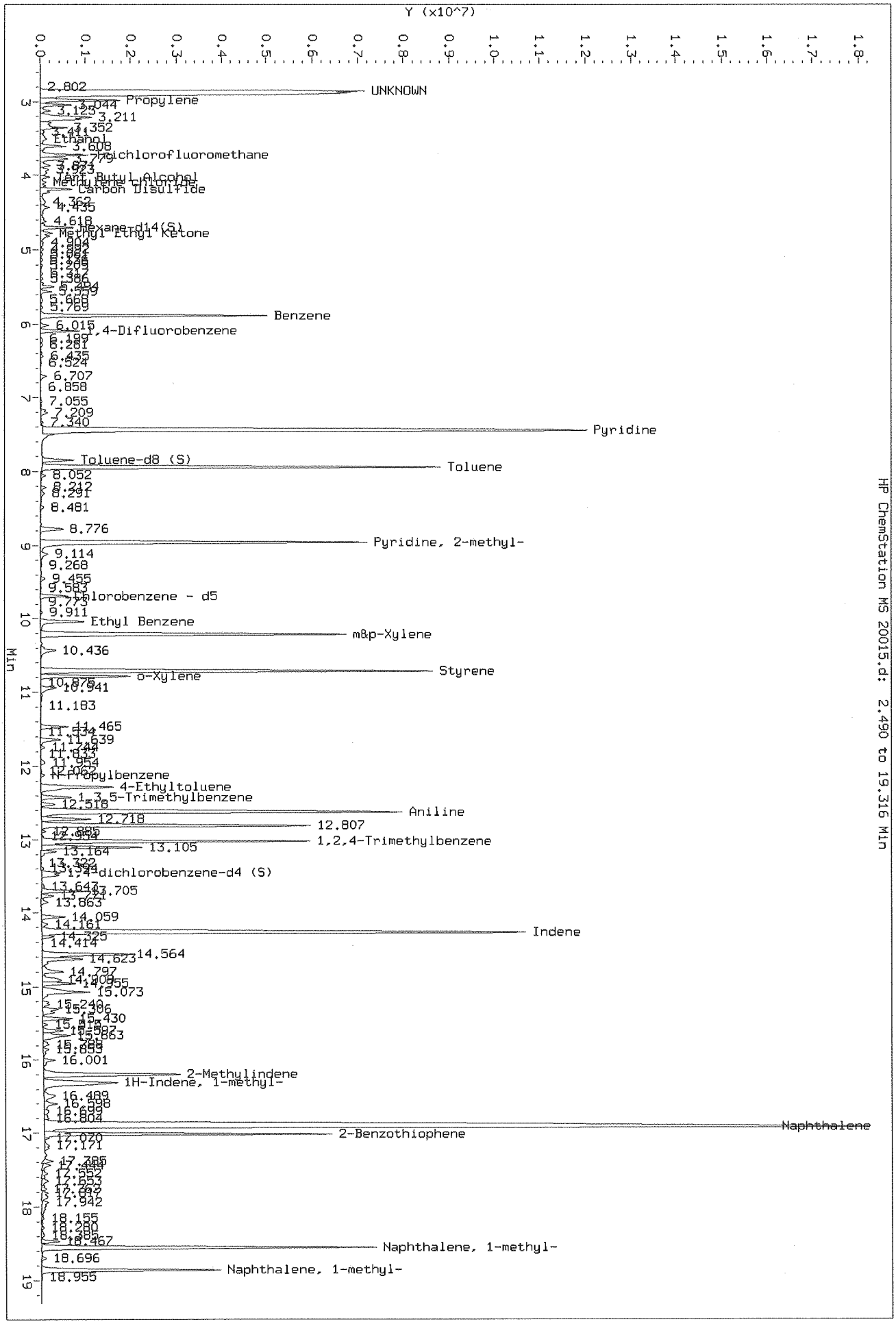
COMPOUND	RT	AREA	AMOUNT
1 Propylene	2.979	3112411	50.403
$ 48 Toluene-d8 (S)	7.848	1253227	10.046
* 55 Chlorobenzene - d5	9.691	1124906	10.000
66 1,3,5-Trimethylbenzene	12.420	1297637	4.299
$ 70 1,4-dichlorobenzene-d4	13.456	1425747	8.028
76 Naphthalene	16.909	63648033	386.850

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.854	28604333	463.224955	667	0		0	1
Pyridine				CAS #: 110-86-1			
7.442	31654810	253.744154	365	97	NIST05.L	1017	48

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20015.d
Report Date: 24-Jul-2013 12:28

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
Pyridine, 2-methyl-				CAS #: 109-06-8			
8.953	14998353	133.329742	192	95	NIST05.L	2448	55
Aniline				CAS #: 62-53-3			
12.620	19730496	65.3708849	94.1	97	NIST05.L	2437	66
Indene				CAS #: 95-13-6			
14.266	25335421	142.654459	205	95	NIST05.L	8169	70
2-Methylindene				CAS #: 2177-47-1			
16.194	7368125	44.7831461	64.5	96	NIST05.L	12678	76
1H-Indene, 1-methyl-				CAS #: 767-59-9			
16.309	5636972	34.2612725	49.3	95	NIST05.L	12686	76
2-Benzothiophene				CAS #: 270-82-6			
17.017	10904320	66.2759892	95.4	97	NIST05.L	14779	76
Naphthalene, 1-methyl-				CAS #: 90-12-0			
18.552	14769425	89.7679260	129	96	NIST05.L	18566	76
Naphthalene, 1-methyl-				CAS #: 90-12-0			
18.860	7906742	48.0568401	69.2	96	NIST05.L	18566	76

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20015.d
Injection Date: 19-JUL-2013 19:36
Instrument: 10airD.i
Client Sample ID:



HP ChemStation MS 20015.d: 2.490 to 19.316 Min

Data File: \\192.168.10.12\chem\10airD.i\072213.b\20325.d
Report Date: 24-Jul-2013 12:33

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:
Lab Smp Id: 10235750002
Operator : DR1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 22-JUL-2013 20:34

Client SDG: 072213.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	2.854	7.22	J
2.	463-49-0	Allene	3.048	0.118	NJ
3.		Unknown	3.130	0.126	J
4.		Unknown	3.212	0.778	J
5.		Unknown	3.366	21.7	J
6.	78-78-4	Butane, 2-methyl-	3.615	19.7	NJ
7.	78-79-5	1,3-Butadiene, 2-methyl-	3.881	2.68	NJ
8.	18173-64-3	tert-Butyldimethylsilanol	4.376	1.31	NJ
9.		Unknown	4.445	1.61	J
10.		Unknown	15.624	6.40	J

Data File: \\192.168.10.12\chem\10airD.i\072213.b\20325.d
Report Date: 24-Jul-2013 12:33

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\072213.b\20325.d
Lab Smp Id: 10235750002
Inj Date : 22-JUL-2013 20:34
Operator : DR1 Inst ID: 10airD.i
Smp Info :
Misc Info : 17844
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\072213.b\TO15_203-13.m
Meth Date : 23-Jul-2013 07:33 drandall Quant Type: ISTD
Cal Date : 22-JUL-2013 18:10 Cal File: 20320.d
Als bottle: 25
Dil Factor: 1.92960
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.930	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

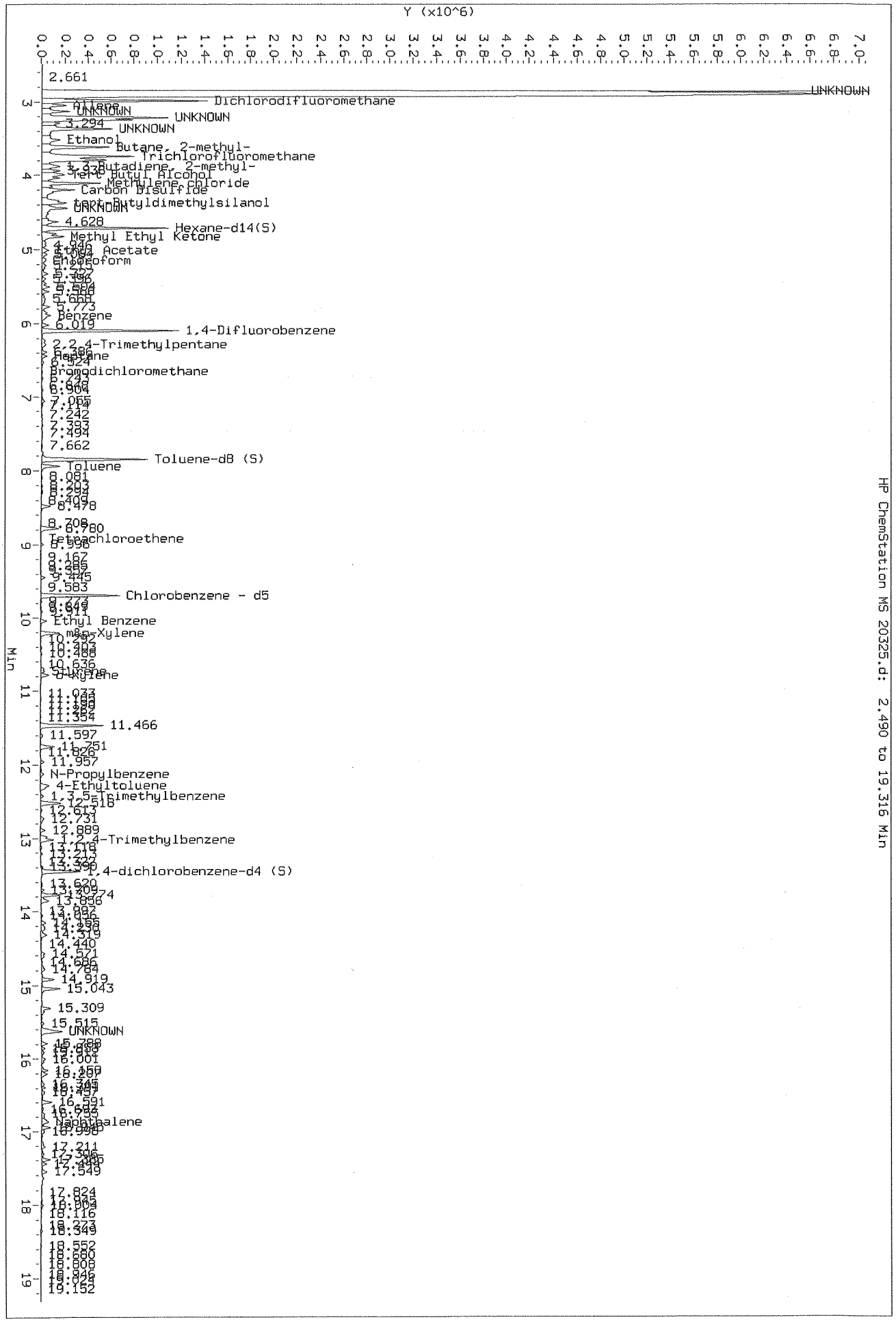
COMPOUND	RT	AREA	AMOUNT
2 Dichlorodifluoromethane	3.008	2350387	0.301
9 Ethanol	3.520	611844	4.682
17 Tert Butyl Alcohol	3.995	807887	2.587
21 Carbon Disulfide	4.238	799012	0.831
76 Naphthalene	16.867	180360	1.271

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.854	29177167	3.74026900	7.22	0		0	2
Allene				CAS #: 463-49-0			
3.048	476611	0.06109749	0.118	90	NIST05.L	48	2
Unknown				CAS #:			
3.130	510713	0.06546919	0.126	0		0	2

Data File: \\192.168.10.12\chem\10airD.i\072213.b\20325.d
Report Date: 24-Jul-2013 12:33

RT	AREA	CONCENTRATIONS ON-COL(ppbv)	FINAL(ppbv)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.212	3145022	0.40316559	0.778	0		0	2
Unknown				CAS #:			
3.366	1472025	11.2646426	21.7	0		0	9
Butane, 2-methyl-				CAS #:	78-78-4		
3.615	1333688	10.2060197	19.7	81	NIST05.L	700	9
1,3-Butadiene, 2-methyl-				CAS #:	78-79-5		
3.881	434309	1.39062057	2.68	94	NIST05.L	448	17
tert-Butyldimethylsilanol				CAS #:	18173-64-3		
4.376	653997	0.67995487	1.31	72	NIST05.L	13928	21
Unknown				CAS #:			
4.445	802971	0.83484162	1.61	0		0	21
Unknown				CAS #:			
15.624	470849	3.31783220	6.40	0		0	76

Data File: \\192.168.10.12\chem\10airD.i\072213.b\20325.d
Injection Date: 22-JUL-2013 20:34
Instrument: 10airD.i
Client Sample ID:



HP ChemStation MS 20325.d: 2.490 to 19.316 Min

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20017.d
Report Date: 24-Jul-2013 12:28

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:
Lab Smp Id: 10235750003
Operator : DR1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 19-JUL-2013 20:37

Client SDG: 071913.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	2.897	6.47	J
2.	463-49-0	Allene	3.034	0.108	NJ
3.		Unknown	3.116	0.130	J
4.		Unknown	3.205	0.626	J
5.		Unknown	3.369	0.0774	J
6.	78-78-4	Butane, 2-methyl-	3.605	0.116	NJ
7.		Unknown	4.445	0.727	J
8.	124-19-6	Nonanal	15.040	8.93	NJ
9.		Unknown	15.620	4.16	J
10.		Unknown	16.945	4.44	J

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20017.d
Report Date: 24-Jul-2013 12:28

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\071913.b\20017.d
Lab Smp Id: 10235750003
Inj Date : 19-JUL-2013 20:37
Operator : DR1 Inst ID: 10airD.i
Smp Info :
Misc Info : 17832
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\071913.b\TO15_198-13.m
Meth Date : 19-Jul-2013 13:41 drandall Quant Type: ISTD
Cal Date : 17-JUL-2013 17:12 Cal File: 19819.d
Als bottle: 17
Dil Factor: 1.49000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.490	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

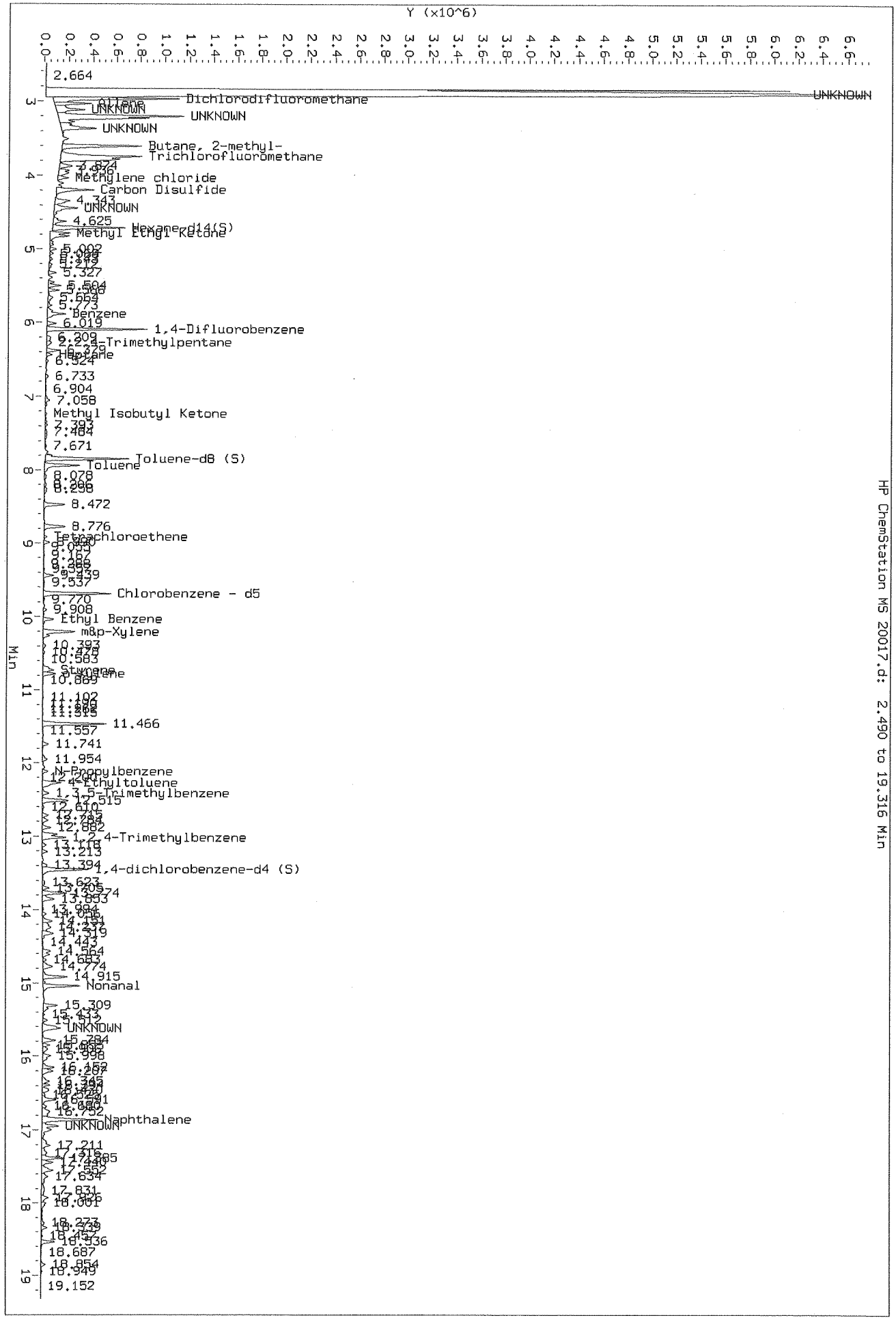
	COMPOUND	RT	AREA	AMOUNT
2	Dichlorodifluoromethane	2.998	2024359	0.278
12	Trichlorofluoromethane	3.700	2468362	0.156
21	Carbon Disulfide	4.228	642901	0.598
$ 70	1,4-dichlorobenzene-d4	13.450	820900	7.948
76	Naphthalene	16.860	971977	5.451

		CONCENTRATIONS		QUANT			
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.897	31681731	4.34342902	6.47	0		0	2
Allene				CAS #: 463-49-0			
3.034	526782	0.07221950	0.108	90	NIST05.L	48	2
Unknown				CAS #:			
3.116	638147	0.08748717	0.130	0		0	2

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20017.d
Report Date: 24-Jul-2013 12:28

RT	AREA	CONCENTRATIONS ON-COL(ppbv)	FINAL(ppbv)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
3.205	3064472	0.42012589	0.626	0		0	2
Unknown				CAS #:			
3.369	823313	0.05193544	0.0774	0		0	12
Butane, 2-methyl-				CAS #:	78-78-4		
3.605	1233338	0.07780028	0.116	91	NIST05.L	698	12
Unknown				CAS #:			
4.445	524818	0.48806752	0.727	0		0	21
Nonanal				CAS #:	124-19-6		
15.040	618970	5.99297003	8.93	74	NIST05.L	19203	70
Unknown				CAS #:			
15.620	498390	2.79524429	4.16	0		0	76
Unknown				CAS #:			
16.945	531237	2.97946737	4.44	0		0	76

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20017.d
Injection Date: 19-JUL-2013 20:37
Instrument: 10airD.i
Client Sample ID:



HP ChemStation MS 20017.d: 2.490 to 19.316 Min

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20014.d
Report Date: 24-Jul-2013 12:28

Pace Analytical Services, Inc.

TENTATIVELY IDENTIFIED COMPOUNDS

Client Name:
Lab Smp Id: 10235750004
Operator : DR1
Sample Location:
Sample Matrix: AIR
Analysis Type: VOA
Inj Date: 19-JUL-2013 19:06

Client SDG: 071913.b

Sample Date:
Sample Point:
Date Received:
Level: LOW

Number TICs found: 10

CONCENTRATION UNITS:
(ug/L or ug/KG) ppbv

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	2.848	832	J
2.	463-49-0	Allene	3.041	29.8	NJ
3.		Unknown	3.205	122	J
4.	107-31-3	Methyl formate	3.356	0.106	NJ
5.	592-57-4	1,3-Cyclohexadiene	5.494	1.72	NJ
6.	124-19-6	Nonanal	15.040	8.93	NJ
7.		Unknown	15.306	2.82	J
8.		Unknown	15.621	2.95	J
9.	13151-34-3	Decane, 3-methyl-	16.942	3.74	NJ
10.	6703-82-8	Cyclopentane, heneicosyl-	17.385	2.26	NJ

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20014.d
Report Date: 24-Jul-2013 12:28

Pace Analytical Services, Inc.

TO15 Analysis (UNIX)

Data file : \\192.168.10.12\chem\10airD.i\071913.b\20014.d
Lab Smp Id: 10235750004
Inj Date : 19-JUL-2013 19:06
Operator : DR1 Inst ID: 10airD.i
Smp Info :
Misc Info : 17832
Comment : Volatile Organic COMPOUNDS in Air
Method : \\192.168.10.12\chem\10airD.i\071913.b\TO15_198-13.m
Meth Date : 19-Jul-2013 13:41 drandall Quant Type: ISTD
Cal Date : 17-JUL-2013 17:12 Cal File: 19819.d
Als bottle: 14
Dil Factor: 1.44000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14
Processing Host: 10AIRPC4

Concentration Formula: Amt * DF * Uf * CpndVariable

Name	Value	Description
DF	1.440	Dilution Factor
Uf	1.000	ng unit correction factor
Cpnd Variable		Local Compound Variable

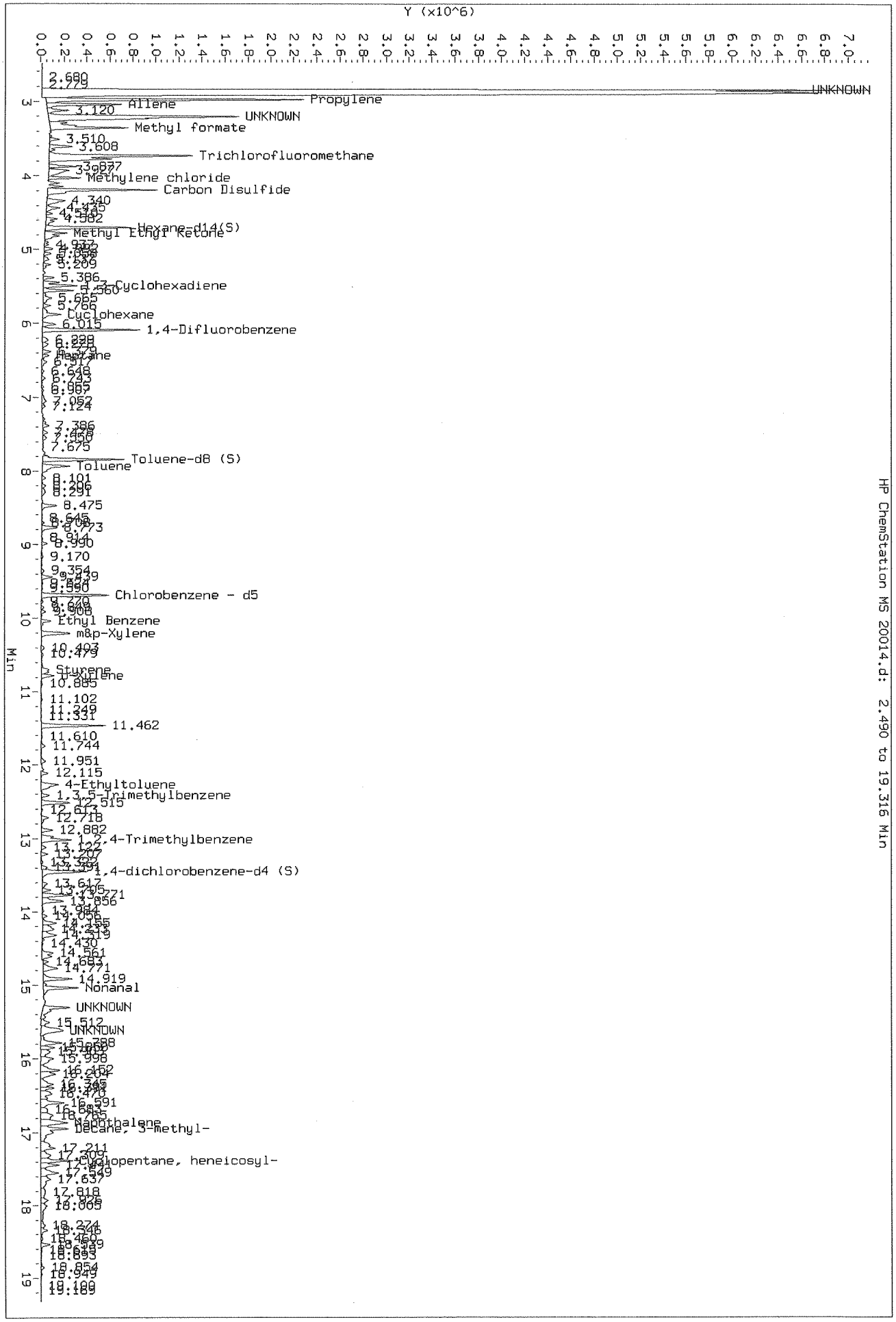
COMPOUND	RT	AREA	AMOUNT
1 Propylene	2.976	3403364	67.437
12 Trichlorofluoromethane	3.704	3295925	0.153
37 Cyclohexane	5.920	417769	0.717
$ 70 1,4-dichlorobenzene-d4	13.450	848192	7.957
76 Naphthalene	16.860	756719	1.992

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ppbv)	FINAL(ppbv)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.848	29147116	577.548194	832	0		0	1
Allene				CAS #: 463-49-0			
3.041	1043681	20.6804747	29.8	90	NIST05.L	48	1
Unknown				CAS #:			
3.205	4278589	84.7799623	122	0		0	1

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20014.d
Report Date: 24-Jul-2013 12:28

RT	AREA	CONCENTRATIONS ON-COL(ppbv)	FINAL(ppbv)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Methyl formate					CAS #: 107-31-3		
3.356	1597427	0.07400691	0.106	78	NIST05.L	261	12
1,3-Cyclohexadiene					CAS #: 592-57-4		
5.494	695171	1.19277369	1.72	92	NIST05.L	1061	37
Nonanal					CAS #: 124-19-6		
15.040	661044	6.20144269	8.93	91	NIST05.L	19203	70
Unknown					CAS #:		
15.306	745350	1.96188530	2.82	0		0	76
Unknown					CAS #:		
15.621	778850	2.05006284	2.95	0		0	76
Decane, 3-methyl-					CAS #: 13151-34-3		
16.942	988171	2.60103132	3.74	72	NIST05.L	27251	76
Cyclopentane, heneicosyl-					CAS #: 6703-82-8		
17.385	596135	1.56912775	2.26	86	NIST05.L	159047	76

Data File: \\192.168.10.12\chem\10airD.i\071913.b\20014.d
Injection Date: 19-JUL-2013 19:06
Instrument: 10airD.i
Client Sample ID:



HP ChemStation MS 20014.d: 2.490 to 19.316 Min

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

July 25, 2013

Mr. Steve Carlson
West Central Env. Consultants
11265 91st Ave. North
Maple Grove, MN 55369

RE: Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Dear Mr. Carlson:
Enclosed are the analytical results for sample(s) received by the laboratory on July 18, 2013. 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,

Diane J. Anderson

diane.anderson@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

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
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
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

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SAMPLE SUMMARY

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10235773001	**B-1 @ 27**	Solid	07/17/13 16:00	07/18/13 12:50
10235773002	**B-1 @ 32**	Solid	07/17/13 16:10	07/18/13 12:50
10235773003	**B-2 @ 28**	Solid	07/17/13 09:00	07/18/13 12:50
10235773004	**B-2 @ 32**	Solid	07/17/13 09:05	07/18/13 12:50
10235773005	**B-3 @ 27**	Solid	07/17/13 10:55	07/18/13 12:50
10235773006	**B-3 @ 32**	Solid	07/17/13 11:00	07/18/13 12:50
10235773007	**B-4 @ 27**	Solid	07/17/13 19:23	07/18/13 12:50
10235773008	**B-4 @ 32**	Solid	07/17/13 19:35	07/18/13 12:50

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SAMPLE ANALYTE COUNT

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10235773001	**B-1 @ 27**	WI MOD DRO	MT	2
		WI MOD GRO	LLC	7
		ASTM D2974	JDL	1
10235773002	**B-1 @ 32**	WI MOD DRO	MT	2
		WI MOD GRO	LLC	7
		ASTM D2974	JDL	1
10235773003	**B-2 @ 28**	WI MOD DRO	MT	2
		WI MOD GRO	LLC	7
		ASTM D2974	JDL	1
10235773004	**B-2 @ 32**	WI MOD DRO	MT	2
		WI MOD GRO	LLC	7
		ASTM D2974	JDL	1
10235773005	**B-3 @ 27**	WI MOD DRO	MT	2
		WI MOD GRO	LLC	7
		ASTM D2974	JDL	1
10235773006	**B-3 @ 32**	WI MOD DRO	MT	2
		WI MOD GRO	LLC	7
		ASTM D2974	JDL	1
10235773007	**B-4 @ 27**	WI MOD DRO	MT	2
		WI MOD GRO	LLC	7
		ASTM D2974	JDL	1
10235773008	**B-4 @ 32**	WI MOD DRO	MT	2
		WI MOD GRO	LLC	7
		ASTM D2974	JDL	1

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PROJECT NARRATIVE

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Method: **WI MOD DRO**
Description: WIDRO GCS
Client: WCEC
Date: July 25, 2013

General Information:
8 samples were analyzed for WI MOD DRO. All samples were received in acceptable condition with any exceptions noted below.

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

Sample Preparation:
The samples were prepared in accordance with WI MOD DRO with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

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

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

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Method: **WI MOD GRO**
Description: WIGRO GCV
Client: WCEC
Date: July 25, 2013

General Information:
8 samples were analyzed for WI MOD GRO. All samples were received in acceptable condition with any exceptions noted below.

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

Sample Preparation:
The samples were prepared in accordance with TPH GRO/PVOC WI ext. with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

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

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

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

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: GCV/11103

R1: RPD value was outside control limits.

- LCSD (Lab ID: 1485644)
  - Methyl-tert-butyl ether

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Sample: B-1 @ 27 **Lab ID: 10235773001** Collected: 07/17/13 16:00 Received: 07/18/13 12:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO		Preparation Method: WI MOD DRO					
Diesel Range Organics	ND	mg/kg	6.5	1	07/22/13 09:50	07/25/13 11:39		
Surrogates								
n-Triacontane (S)	75	%	50-150	1	07/22/13 09:50	07/25/13 11:39	638-68-6	
WIGRO GCV	Analytical Method: WI MOD GRO		Preparation Method: TPH GRO/PVOC WI ext.					
Benzene	ND	mg/kg	0.058	1	07/23/13 17:34	07/25/13 07:43	71-43-2	
Ethylbenzene	ND	mg/kg	0.058	1	07/23/13 17:34	07/25/13 07:43	100-41-4	
Gasoline Range Organics	ND	mg/kg	5.8	1	07/23/13 17:34	07/25/13 07:43		
Methyl-tert-butyl ether	ND	mg/kg	0.29	1	07/23/13 17:34	07/25/13 07:43	1634-04-4	
Toluene	ND	mg/kg	0.058	1	07/23/13 17:34	07/25/13 07:43	108-88-3	
Xylene (Total)	ND	mg/kg	0.17	1	07/23/13 17:34	07/25/13 07:43	1330-20-7	
Surrogates								
a,a,a-Trifluorotoluene (S)	101	%	80-125	1	07/23/13 17:34	07/25/13 07:43	98-08-8	
Dry Weight	Analytical Method: ASTM D2974							
Percent Moisture	**10.4**	%	0.10	1		07/22/13 00:00		

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Sample: B-1 @ 32 **Lab ID: 10235773002** Collected: 07/17/13 16:10 Received: 07/18/13 12:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO		Preparation Method: WI MOD DRO					
Diesel Range Organics	ND	mg/kg	5.8	1	07/22/13 09:50	07/25/13 12:10		
Surrogates								
n-Triacontane (S)	80	%	50-150	1	07/22/13 09:50	07/25/13 12:10	638-68-6	
WIGRO GCV	Analytical Method: WI MOD GRO		Preparation Method: TPH GRO/PVOC WI ext.					
Benzene	ND	mg/kg	0.057	1	07/23/13 17:34	07/25/13 02:12	71-43-2	
Ethylbenzene	ND	mg/kg	0.057	1	07/23/13 17:34	07/25/13 02:12	100-41-4	
Gasoline Range Organics	ND	mg/kg	5.7	1	07/23/13 17:34	07/25/13 02:12		
Methyl-tert-butyl ether	ND	mg/kg	0.28	1	07/23/13 17:34	07/25/13 02:12	1634-04-4	
Toluene	ND	mg/kg	0.057	1	07/23/13 17:34	07/25/13 02:12	108-88-3	
Xylene (Total)	ND	mg/kg	0.17	1	07/23/13 17:34	07/25/13 02:12	1330-20-7	
Surrogates								
a,a,a-Trifluorotoluene (S)	103	%	80-125	1	07/23/13 17:34	07/25/13 02:12	98-08-8	
Dry Weight	Analytical Method: ASTM D2974							
Percent Moisture	**15.0**	%	0.10	1		07/22/13 00:00		

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Sample: B-2 @ 28 **Lab ID: 10235773003** Collected: 07/17/13 09:00 Received: 07/18/13 12:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO		Preparation Method: WI MOD DRO					
Diesel Range Organics	ND	mg/kg	5.8	1	07/22/13 09:50	07/25/13 12:18		
Surrogates								
n-Triacontane (S)	79	%	50-150	1	07/22/13 09:50	07/25/13 12:18	638-68-6	
WIGRO GCV	Analytical Method: WI MOD GRO		Preparation Method: TPH GRO/PVOC WI ext.					
Benzene	ND	mg/kg	0.057	1	07/23/13 17:34	07/25/13 02:31	71-43-2	
Ethylbenzene	ND	mg/kg	0.057	1	07/23/13 17:34	07/25/13 02:31	100-41-4	
Gasoline Range Organics	ND	mg/kg	5.7	1	07/23/13 17:34	07/25/13 02:31		
Methyl-tert-butyl ether	ND	mg/kg	0.28	1	07/23/13 17:34	07/25/13 02:31	1634-04-4	
Toluene	ND	mg/kg	0.057	1	07/23/13 17:34	07/25/13 02:31	108-88-3	
Xylene (Total)	ND	mg/kg	0.17	1	07/23/13 17:34	07/25/13 02:31	1330-20-7	
Surrogates								
a,a,a-Trifluorotoluene (S)	100	%	80-125	1	07/23/13 17:34	07/25/13 02:31	98-08-8	
Dry Weight	Analytical Method: ASTM D2974							
Percent Moisture	**11.4**	%	0.10	1		07/22/13 00:00		

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Sample: B-2 @ 32 **Lab ID: 10235773004** Collected: 07/17/13 09:05 Received: 07/18/13 12:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO		Preparation Method: WI MOD DRO					
Diesel Range Organics	ND	mg/kg	6.3	1	07/22/13 09:50	07/25/13 12:25		
Surrogates								
n-Triacontane (S)	81	%	50-150	1	07/22/13 09:50	07/25/13 12:25	638-68-6	
WIGRO GCV	Analytical Method: WI MOD GRO		Preparation Method: TPH GRO/PVOC WI ext.					
Benzene	ND	mg/kg	0.061	1	07/23/13 17:34	07/25/13 06:06	71-43-2	
Ethylbenzene	ND	mg/kg	0.061	1	07/23/13 17:34	07/25/13 06:06	100-41-4	
Gasoline Range Organics	ND	mg/kg	6.1	1	07/23/13 17:34	07/25/13 06:06		
Methyl-tert-butyl ether	ND	mg/kg	0.31	1	07/23/13 17:34	07/25/13 06:06	1634-04-4	
Toluene	ND	mg/kg	0.061	1	07/23/13 17:34	07/25/13 06:06	108-88-3	
Xylene (Total)	ND	mg/kg	0.18	1	07/23/13 17:34	07/25/13 06:06	1330-20-7	
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%	80-125	1	07/23/13 17:34	07/25/13 06:06	98-08-8	
Dry Weight	Analytical Method: ASTM D2974							
Percent Moisture	**16.6**	%	0.10	1		07/22/13 00:00		

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Sample: B-3 @ 27 **Lab ID: 10235773005** Collected: 07/17/13 10:55 Received: 07/18/13 12:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO		Preparation Method: WI MOD DRO					
Diesel Range Organics	ND	mg/kg	6.3	1	07/22/13 09:50	07/25/13 12:33		
Surrogates								
n-Triacontane (S)	76	%	50-150	1	07/22/13 09:50	07/25/13 12:33	638-68-6	
WIGRO GCV	Analytical Method: WI MOD GRO		Preparation Method: TPH GRO/PVOC WI ext.					
Benzene	ND	mg/kg	0.050	1	07/23/13 17:34	07/25/13 06:25	71-43-2	
Ethylbenzene	ND	mg/kg	0.050	1	07/23/13 17:34	07/25/13 06:25	100-41-4	
Gasoline Range Organics	ND	mg/kg	5.0	1	07/23/13 17:34	07/25/13 06:25		
Methyl-tert-butyl ether	ND	mg/kg	0.25	1	07/23/13 17:34	07/25/13 06:25	1634-04-4	
Toluene	ND	mg/kg	0.050	1	07/23/13 17:34	07/25/13 06:25	108-88-3	
Xylene (Total)	ND	mg/kg	0.15	1	07/23/13 17:34	07/25/13 06:25	1330-20-7	
Surrogates								
a,a,a-Trifluorotoluene (S)	100	%	80-125	1	07/23/13 17:34	07/25/13 06:25	98-08-8	
Dry Weight	Analytical Method: ASTM D2974							
Percent Moisture	**3.3**	%	0.10	1		07/22/13 00:00		

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Sample: B-3 @ 32 **Lab ID: 10235773006** Collected: 07/17/13 11:00 Received: 07/18/13 12:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO		Preparation Method: WI MOD DRO					
Diesel Range Organics	ND	mg/kg	5.7	1	07/22/13 09:50	07/25/13 12:41		
Surrogates								
n-Triacontane (S)	80	%	50-150	1	07/22/13 09:50	07/25/13 12:41	638-68-6	
WIGRO GCV	Analytical Method: WI MOD GRO		Preparation Method: TPH GRO/PVOC WI ext.					
Benzene	ND	mg/kg	0.059	1	07/23/13 17:34	07/25/13 06:45	71-43-2	
Ethylbenzene	ND	mg/kg	0.059	1	07/23/13 17:34	07/25/13 06:45	100-41-4	
Gasoline Range Organics	ND	mg/kg	5.9	1	07/23/13 17:34	07/25/13 06:45		
Methyl-tert-butyl ether	ND	mg/kg	0.30	1	07/23/13 17:34	07/25/13 06:45	1634-04-4	
Toluene	ND	mg/kg	0.059	1	07/23/13 17:34	07/25/13 06:45	108-88-3	
Xylene (Total)	ND	mg/kg	0.18	1	07/23/13 17:34	07/25/13 06:45	1330-20-7	
Surrogates								
a,a,a-Trifluorotoluene (S)	100	%	80-125	1	07/23/13 17:34	07/25/13 06:45	98-08-8	
Dry Weight	Analytical Method: ASTM D2974							
Percent Moisture	**14.5**	%	0.10	1		07/22/13 00:00		

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Sample: B-4 @ 27 **Lab ID: 10235773007** Collected: 07/17/13 19:23 Received: 07/18/13 12:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO		Preparation Method: WI MOD DRO					
Diesel Range Organics	ND	mg/kg	5.7	1	07/22/13 09:50	07/25/13 12:48		
Surrogates								
n-Triacontane (S)	80	%	50-150	1	07/22/13 09:50	07/25/13 12:48	638-68-6	
WIGRO GCV	Analytical Method: WI MOD GRO		Preparation Method: TPH GRO/PVOC WI ext.					
Benzene	ND	mg/kg	0.057	1	07/23/13 17:34	07/25/13 07:04	71-43-2	
Ethylbenzene	ND	mg/kg	0.057	1	07/23/13 17:34	07/25/13 07:04	100-41-4	
Gasoline Range Organics	ND	mg/kg	5.7	1	07/23/13 17:34	07/25/13 07:04		
Methyl-tert-butyl ether	ND	mg/kg	0.28	1	07/23/13 17:34	07/25/13 07:04	1634-04-4	
Toluene	ND	mg/kg	0.057	1	07/23/13 17:34	07/25/13 07:04	108-88-3	
Xylene (Total)	ND	mg/kg	0.17	1	07/23/13 17:34	07/25/13 07:04	1330-20-7	
Surrogates								
a,a,a-Trifluorotoluene (S)	100	%	80-125	1	07/23/13 17:34	07/25/13 07:04	98-08-8	
Dry Weight	Analytical Method: ASTM D2974							
Percent Moisture	**9.9**	%	0.10	1		07/22/13 00:00		

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Sample: B-4 @ 32 **Lab ID: 10235773008** Collected: 07/17/13 19:35 Received: 07/18/13 12:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO		Preparation Method: WI MOD DRO					
Diesel Range Organics	ND	mg/kg	7.0	1	07/22/13 09:50	07/25/13 12:56		
Surrogates								
n-Triacontane (S)	78	%	50-150	1	07/22/13 09:50	07/25/13 12:56	638-68-6	
WIGRO GCV	Analytical Method: WI MOD GRO		Preparation Method: TPH GRO/PVOC WI ext.					
Benzene	ND	mg/kg	0.056	1	07/23/13 17:34	07/25/13 07:24	71-43-2	
Ethylbenzene	ND	mg/kg	0.056	1	07/23/13 17:34	07/25/13 07:24	100-41-4	
Gasoline Range Organics	ND	mg/kg	5.6	1	07/23/13 17:34	07/25/13 07:24		
Methyl-tert-butyl ether	ND	mg/kg	0.28	1	07/23/13 17:34	07/25/13 07:24	1634-04-4	
Toluene	ND	mg/kg	0.056	1	07/23/13 17:34	07/25/13 07:24	108-88-3	
Xylene (Total)	ND	mg/kg	0.17	1	07/23/13 17:34	07/25/13 07:24	1330-20-7	
Surrogates								
a,a,a-Trifluorotoluene (S)	102	%	80-125	1	07/23/13 17:34	07/25/13 07:24	98-08-8	
Dry Weight	Analytical Method: ASTM D2974							
Percent Moisture	**14.2**	%	0.10	1		07/22/13 00:00		

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

QC Batch: GCV/11103 — Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. — Analysis Description: WIGRO Solid GCV
Associated Lab Samples: 10235773001, 10235773002, 10235773003, 10235773004, 10235773005, 10235773006, 10235773007, 10235773008

METHOD BLANK: 1485642 — Matrix: Solid
Associated Lab Samples: 10235773001, 10235773002, 10235773003, 10235773004, 10235773005, 10235773006, 10235773007, 10235773008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	mg/kg	ND	0.050	07/25/13 01:13	
Ethylbenzene	mg/kg	ND	0.050	07/25/13 01:13	
Gasoline Range Organics	mg/kg	ND	5.0	07/25/13 01:13	
Methyl-tert-butyl ether	mg/kg	ND	0.25	07/25/13 01:13	
Toluene	mg/kg	ND	0.050	07/25/13 01:13	
Xylene (Total)	mg/kg	ND	0.15	07/25/13 01:13	
a,a,a-Trifluorotoluene (S)	%	103	80-125	07/25/13 01:13	

LABORATORY CONTROL SAMPLE & LCSD: 1485643 1485644

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Benzene	mg/kg	5	4.5	5.4	90	109	80-120	19	20	
Ethylbenzene	mg/kg	5	4.6	5.5	92	110	80-120	17	20	
Gasoline Range Organics	mg/kg	50	55.2	58.6	110	117	80-120	6	20	
Methyl-tert-butyl ether	mg/kg	5	4.2	5.2	85	104	80-120	21	20	R1
Toluene	mg/kg	5	4.6	5.5	92	111	80-120	18	20	
Xylene (Total)	mg/kg	15	13.7	16.4	91	109	80-120	18	20	
a,a,a-Trifluorotoluene (S)	%				99	98	80-125			

MATRIX SPIKE SAMPLE: 1485645

Parameter	Units	10235773002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	mg/kg	ND	6	5.3	90	80-120	
Ethylbenzene	mg/kg	ND	6	5.5	92	80-120	
Gasoline Range Organics	mg/kg	ND	59.4	60.3	101	80-120	
Methyl-tert-butyl ether	mg/kg	ND	6	5.6	94	80-120	
Toluene	mg/kg	ND	6	5.4	91	80-120	
Xylene (Total)	mg/kg	ND	17.9	16.4	92	80-120	
a,a,a-Trifluorotoluene (S)	%				97	80-125	

SAMPLE DUPLICATE: 1485646

Parameter	Units	10235773003 Result	Dup Result	RPD	Max RPD	Qualifiers
Benzene	mg/kg	ND	ND		20	
Ethylbenzene	mg/kg	ND	ND		20	
Gasoline Range Organics	mg/kg	ND	ND		20	
Methyl-tert-butyl ether	mg/kg	ND	ND		20	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

SAMPLE DUPLICATE: 1485646

Parameter	Units	10235773003 Result	Dup Result	RPD	Max RPD	Qualifiers
Toluene	mg/kg	ND	ND		20	
Xylene (Total)	mg/kg	ND	ND		20	
a,a,a-Trifluorotoluene (S)	%	100	102	3		

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

QC Batch: MPRP/40730 | Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 10235773001, 10235773002, 10235773003, 10235773004, 10235773005, 10235773006, 10235773007, 10235773008

SAMPLE DUPLICATE: 1483860

Parameter	Units	10235768009 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	22.5	22.1	2	30	

SAMPLE DUPLICATE: 1483861

Parameter	Units	10235778020 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.8	10.2	15	30	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

QC Batch: OEXT/22378 Analysis Method: WI MOD DRO
QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS
Associated Lab Samples: 10235773001, 10235773002, 10235773003, 10235773004, 10235773005, 10235773006, 10235773007, 10235773008

METHOD BLANK: 1484158 Matrix: Solid
Associated Lab Samples: 10235773001, 10235773002, 10235773003, 10235773004, 10235773005, 10235773006, 10235773007, 10235773008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/kg	ND	10.0	07/25/13 10:15	
n-Triacontane (S)	%	80	50-150	07/25/13 10:15	

LABORATORY CONTROL SAMPLE & LCSD: 1484159 1484160

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Range Organics	mg/kg	80	65.1	68.4	81	86	70-120	5	20	
n-Triacontane (S)	%				81	86	50-150			

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QUALIFIERS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

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.

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ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235773

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10235773001	**B-1 @ 27**	WI MOD DRO	OEXT/22378	WI MOD DRO	GCSV/11729
10235773002	**B-1 @ 32**	WI MOD DRO	OEXT/22378	WI MOD DRO	GCSV/11729
10235773003	**B-2 @ 28**	WI MOD DRO	OEXT/22378	WI MOD DRO	GCSV/11729
10235773004	**B-2 @ 32**	WI MOD DRO	OEXT/22378	WI MOD DRO	GCSV/11729
10235773005	**B-3 @ 27**	WI MOD DRO	OEXT/22378	WI MOD DRO	GCSV/11729
10235773006	**B-3 @ 32**	WI MOD DRO	OEXT/22378	WI MOD DRO	GCSV/11729
10235773007	**B-4 @ 27**	WI MOD DRO	OEXT/22378	WI MOD DRO	GCSV/11729
10235773008	**B-4 @ 32**	WI MOD DRO	OEXT/22378	WI MOD DRO	GCSV/11729
10235773001	**B-1 @ 27**	TPH GRO/PVOC WI ext.	GCV/11103	WI MOD GRO	GCV/11104
10235773002	**B-1 @ 32**	TPH GRO/PVOC WI ext.	GCV/11103	WI MOD GRO	GCV/11104
10235773003	**B-2 @ 28**	TPH GRO/PVOC WI ext.	GCV/11103	WI MOD GRO	GCV/11104
10235773004	**B-2 @ 32**	TPH GRO/PVOC WI ext.	GCV/11103	WI MOD GRO	GCV/11104
10235773005	**B-3 @ 27**	TPH GRO/PVOC WI ext.	GCV/11103	WI MOD GRO	GCV/11104
10235773006	**B-3 @ 32**	TPH GRO/PVOC WI ext.	GCV/11103	WI MOD GRO	GCV/11104
10235773007	**B-4 @ 27**	TPH GRO/PVOC WI ext.	GCV/11103	WI MOD GRO	GCV/11104
10235773008	**B-4 @ 32**	TPH GRO/PVOC WI ext.	GCV/11103	WI MOD GRO	GCV/11104
10235773001	**B-1 @ 27**	ASTM D2974	MPRP/40730		
10235773002	**B-1 @ 32**	ASTM D2974	MPRP/40730		
10235773003	**B-2 @ 28**	ASTM D2974	MPRP/40730		
10235773004	**B-2 @ 32**	ASTM D2974	MPRP/40730		
10235773005	**B-3 @ 27**	ASTM D2974	MPRP/40730		
10235773006	**B-3 @ 32**	ASTM D2974	MPRP/40730		
10235773007	**B-4 @ 27**	ASTM D2974	MPRP/40730		
10235773008	**B-4 @ 32**	ASTM D2974	MPRP/40730		

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CHAIN-OF-CUSTODY / Analytical Request Document

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

10235773

Page: of 1753117

Section A Required Client Information:

Company: WCEC
Address: 11265 91st Ave N.
Maple Grove, MN 55369
Email To: scarlson@wcec.com
Phone: 763-571-4944 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Steve Carlson
Copy To:
Purchase Order No.:
Project Name: Princeton EDA Phase II
Project Number: 9586

Section C Invoice Information:

Attention: Sheldon Glese
Company Name: WCEC
Address: 14 Green River Rd Morris MN 56267
Pace Quote Reference:
Pace Project Manager: Diane Anderson
Pace Profile #:

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

Matrix Codes MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N): DRO / GRO / MBTEX / % moist

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N) DRO	GRO	% moist	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B-1 @ 27	SL	G			7/12/13	16:00		5	3						2		L	L	L		001
2	B-1 @ 32						16:10											L	L	L		002
3	B-2 @ 28						9:00											L	L	L		003
4	B-2 @ 32						9:03											L	L	L		004
5	B-3 @ 27						10:55											L	L	L		005
6	B-3 @ 32						11:00											L	L	L		006
7	B-4 @ 27						14:23											L	L	L		007
8	B-4 @ 32						14:35											L	L	L		008
9	Trip Blank						~		2										L			
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Greg Frank WCEC	7/18/13	9:00	AA / PACE	7/18/13	11:05	3.3			
	AA / PACE	7/18/13	12:50	AA / PACE	7/18/13	12:50				
				Comp PACE	7/18/13	12:50	3.3	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Greg Frank
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/12/13

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 28Jan2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.06	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: WCEC

Project #: WO# : 10235773

10235773

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace ☐ Other:

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 ☐ None ☐ Other: **Temp Blank?** ☒ Yes ☐ No

Thermom. Used: ☒ B88A912167504 ☐ 80512447 ☐ 72337080 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 3.3 **Cooler Temp Corrected (°C):** 3.3 **Biological Tissue Frozen?** ☐ Yes ☐ No

Temp should be above freezing to 6°C **Correction Factor:** 0.0 **Date and Initials of Person Examining Contents:** 7/18/13

Comments:

Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11.
Sample Labels Match COC?	☐ Yes	☒ No	☐ N/A	12. No MeOH TB's
-Includes Date/Time/ID/Analysis Matrix: OL				
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐ Yes	☐ No	☒ N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☐ Yes	☒ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☒ N/A	14.
Trip Blank Present?	☐ Yes	☒ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☒ No	☐ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution: No trip blanks were received.

Project Manager Review: Noah Rhem **Date:** 7/19/13

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)

Pace Analytical Services, Inc.
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(612)607-1700

July 27, 2013

Mr. Steve Carlson
West Central Env. Consultants
11265 91st Ave. North
Maple Grove, MN 55369

RE: Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Dear Mr. Carlson:
Enclosed are the analytical results for sample(s) received by the laboratory on July 18, 2013. 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,

Diane J. Anderson

diane.anderson@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

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
Nebraska Certification #: Pace
Nevada Certification #: MN_00064
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Dakota Certification #: R-036
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

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SAMPLE SUMMARY

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10235777001	**B-1**	Water	07/17/13 16:20	07/18/13 12:50
10235777002	**B-2**	Water	07/17/13 09:10	07/18/13 12:50
10235777003	**B-3**	Water	07/17/13 11:07	07/18/13 12:50
10235777004	**B-4**	Water	07/17/13 14:44	07/18/13 12:50
10235777005	**Trip Blank**	Water	07/17/13 00:00	07/18/13 12:50

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SAMPLE ANALYTE COUNT

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10235777001	**B-1**	WI MOD DRO	JRH	2
		WI MOD GRO	LLC	2
		EPA 8260	EB2	70
10235777002	**B-2**	WI MOD DRO	JRH	2
		WI MOD GRO	LLC	2
		EPA 8260	EB2	70
10235777003	**B-3**	WI MOD DRO	JRH	2
		WI MOD GRO	LLC	2
		EPA 8260	EB2	70
10235777004	**B-4**	WI MOD DRO	JRH	2
		WI MOD GRO	LLC	2
		EPA 8260	EB2	70
10235777005	**Trip Blank**	EPA 8260	EB2	70

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PROJECT NARRATIVE

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Method: **WI MOD DRO**
Description: WIDRO GCS
Client: WCEC
Date: July 27, 2013

General Information:
4 samples were analyzed for WI MOD DRO. All samples were received in acceptable condition with any exceptions noted below.

P4: Sample field preservation does not meet EPA or method recommendations for this analysis.
- B-1 (Lab ID: 10235777001)
- B-2 (Lab ID: 10235777002)
- B-3 (Lab ID: 10235777003)
- B-4 (Lab ID: 10235777004)

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

Sample Preparation:
The samples were prepared in accordance with WI MOD DRO with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

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

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

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Method: **WI MOD GRO**
Description: WIGRO GCV
Client: WCEC
Date: July 27, 2013

General Information:
4 samples were analyzed for WI MOD GRO. All samples were received in acceptable condition with any exceptions noted below.

pH: Post-analysis pH measurement indicates insufficient VOA sample preservation.
- B-1 (Lab ID: 10235777001)
- B-3 (Lab ID: 10235777003)
- B-4 (Lab ID: 10235777004)

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

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

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

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

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

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Method: **EPA 8260**
Description: 8260 VOC
Client: WCEC
Date: July 27, 2013

General Information:
5 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

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

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

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

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

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

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Sample: B-1 **Lab ID: 10235777001** Collected: 07/17/13 16:20 Received: 07/18/13 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO							
Diesel Range Organics	ND	mg/L	0.11	1	07/19/13 16:24	07/22/13 15:32		
Surrogates								
n-Triacontane (S)	76	%	50-150	1	07/19/13 16:24	07/22/13 15:32	638-68-6	P4
WIGRO GCV	Analytical Method: WI MOD GRO							
Gasoline Range Organics	ND	ug/L	100	1		07/25/13 17:03		
Surrogates								
a,a,a-Trifluorotoluene (S)	99	%	80-125	1		07/25/13 17:03	98-08-8	pH
8260 VOC	Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	1		07/23/13 00:34	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		07/23/13 00:34	107-05-1	
Benzene	ND	ug/L	1.0	1		07/23/13 00:34	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/23/13 00:34	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/23/13 00:34	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/23/13 00:34	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/23/13 00:34	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/23/13 00:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		07/23/13 00:34	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		07/23/13 00:34	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		07/23/13 00:34	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/23/13 00:34	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		07/23/13 00:34	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/23/13 00:34	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/23/13 00:34	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/23/13 00:34	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/23/13 00:34	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/23/13 00:34	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/23/13 00:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		07/23/13 00:34	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		07/23/13 00:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/23/13 00:34	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		07/23/13 00:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 00:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 00:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 00:34	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/23/13 00:34	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/23/13 00:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/23/13 00:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/23/13 00:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/23/13 00:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/23/13 00:34	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		07/23/13 00:34	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/23/13 00:34	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/23/13 00:34	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		07/23/13 00:34	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/23/13 00:34	563-58-6	

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Sample: B-1 **Lab ID: 10235777001** Collected: 07/17/13 16:20 Received: 07/18/13 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/23/13 00:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/23/13 00:34	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		07/23/13 00:34	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		07/23/13 00:34	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/23/13 00:34	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/23/13 00:34	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		07/23/13 00:34	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		07/23/13 00:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		07/23/13 00:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/23/13 00:34	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		07/23/13 00:34	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		07/23/13 00:34	103-65-1	
Styrene	ND	ug/L	1.0	1		07/23/13 00:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/23/13 00:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/23/13 00:34	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		07/23/13 00:34	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		07/23/13 00:34	109-99-9	
Toluene	ND	ug/L	1.0	1		07/23/13 00:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/23/13 00:34	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/23/13 00:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/23/13 00:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/23/13 00:34	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		07/23/13 00:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/23/13 00:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		07/23/13 00:34	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		07/23/13 00:34	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		07/23/13 00:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		07/23/13 00:34	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		07/23/13 00:34	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/23/13 00:34	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%	75-125	1		07/23/13 00:34	17060-07-0	
Toluene-d8 (S)	100	%	75-125	1		07/23/13 00:34	2037-26-5	
4-Bromofluorobenzene (S)	102	%	75-125	1		07/23/13 00:34	460-00-4	

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Sample: B-2 **Lab ID: 10235777002** Collected: 07/17/13 09:10 Received: 07/18/13 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO							
Diesel Range Organics	ND	mg/L	0.11	1	07/19/13 16:24	07/22/13 15:40		
Surrogates								
n-Triacontane (S)	70	%	50-150	1	07/19/13 16:24	07/22/13 15:40	638-68-6	P4
WIGRO GCV	Analytical Method: WI MOD GRO							
Gasoline Range Organics	ND	ug/L	100	1		07/25/13 17:23		
Surrogates								
a,a,a-Trifluorotoluene (S)	96	%	80-125	1		07/25/13 17:23	98-08-8	
8260 VOC	Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	1		07/23/13 00:49	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		07/23/13 00:49	107-05-1	
Benzene	ND	ug/L	1.0	1		07/23/13 00:49	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/23/13 00:49	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/23/13 00:49	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/23/13 00:49	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/23/13 00:49	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/23/13 00:49	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		07/23/13 00:49	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		07/23/13 00:49	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		07/23/13 00:49	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/23/13 00:49	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		07/23/13 00:49	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/23/13 00:49	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/23/13 00:49	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/23/13 00:49	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/23/13 00:49	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/23/13 00:49	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/23/13 00:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		07/23/13 00:49	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		07/23/13 00:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/23/13 00:49	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		07/23/13 00:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 00:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 00:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 00:49	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/23/13 00:49	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/23/13 00:49	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/23/13 00:49	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/23/13 00:49	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/23/13 00:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/23/13 00:49	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		07/23/13 00:49	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/23/13 00:49	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/23/13 00:49	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		07/23/13 00:49	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/23/13 00:49	563-58-6	

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Sample: B-2 **Lab ID: 10235777002** Collected: 07/17/13 09:10 Received: 07/18/13 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/23/13 00:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/23/13 00:49	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		07/23/13 00:49	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		07/23/13 00:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/23/13 00:49	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/23/13 00:49	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		07/23/13 00:49	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		07/23/13 00:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		07/23/13 00:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/23/13 00:49	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		07/23/13 00:49	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		07/23/13 00:49	103-65-1	
Styrene	ND	ug/L	1.0	1		07/23/13 00:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/23/13 00:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/23/13 00:49	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		07/23/13 00:49	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		07/23/13 00:49	109-99-9	
Toluene	ND	ug/L	1.0	1		07/23/13 00:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/23/13 00:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/23/13 00:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/23/13 00:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/23/13 00:49	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		07/23/13 00:49	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/23/13 00:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		07/23/13 00:49	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		07/23/13 00:49	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		07/23/13 00:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		07/23/13 00:49	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		07/23/13 00:49	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/23/13 00:49	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%	75-125	1		07/23/13 00:49	17060-07-0	
Toluene-d8 (S)	100	%	75-125	1		07/23/13 00:49	2037-26-5	
4-Bromofluorobenzene (S)	102	%	75-125	1		07/23/13 00:49	460-00-4	

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Sample: B-3 **Lab ID: 10235777003** Collected: 07/17/13 11:07 Received: 07/18/13 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO							
Diesel Range Organics	ND	mg/L	0.11	1	07/19/13 16:24	07/22/13 14:15		
Surrogates								
n-Triacontane (S)	82	%	50-150	1	07/19/13 16:24	07/22/13 14:15	638-68-6	P4
WIGRO GCV	Analytical Method: WI MOD GRO							
Gasoline Range Organics	ND	ug/L	100	1		07/25/13 19:21		
Surrogates								
a,a,a-Trifluorotoluene (S)	101	%	80-125	1		07/25/13 19:21	98-08-8	HS,pH
8260 VOC	Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	1		07/23/13 01:04	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		07/23/13 01:04	107-05-1	
Benzene	ND	ug/L	1.0	1		07/23/13 01:04	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/23/13 01:04	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/23/13 01:04	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/23/13 01:04	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/23/13 01:04	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/23/13 01:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		07/23/13 01:04	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		07/23/13 01:04	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		07/23/13 01:04	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/23/13 01:04	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		07/23/13 01:04	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/23/13 01:04	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/23/13 01:04	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/23/13 01:04	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/23/13 01:04	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/23/13 01:04	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/23/13 01:04	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		07/23/13 01:04	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		07/23/13 01:04	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/23/13 01:04	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		07/23/13 01:04	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 01:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 01:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 01:04	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/23/13 01:04	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/23/13 01:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/23/13 01:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/23/13 01:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/23/13 01:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/23/13 01:04	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		07/23/13 01:04	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/23/13 01:04	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/23/13 01:04	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		07/23/13 01:04	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/23/13 01:04	563-58-6	

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Sample: B-3 **Lab ID: 10235777003** Collected: 07/17/13 11:07 Received: 07/18/13 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/23/13 01:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/23/13 01:04	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		07/23/13 01:04	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		07/23/13 01:04	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/23/13 01:04	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/23/13 01:04	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		07/23/13 01:04	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		07/23/13 01:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		07/23/13 01:04	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/23/13 01:04	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		07/23/13 01:04	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		07/23/13 01:04	103-65-1	
Styrene	ND	ug/L	1.0	1		07/23/13 01:04	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/23/13 01:04	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/23/13 01:04	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		07/23/13 01:04	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		07/23/13 01:04	109-99-9	
Toluene	ND	ug/L	1.0	1		07/23/13 01:04	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/23/13 01:04	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/23/13 01:04	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/23/13 01:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/23/13 01:04	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		07/23/13 01:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/23/13 01:04	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		07/23/13 01:04	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		07/23/13 01:04	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		07/23/13 01:04	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		07/23/13 01:04	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		07/23/13 01:04	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/23/13 01:04	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%	75-125	1		07/23/13 01:04	17060-07-0	HS
Toluene-d8 (S)	100	%	75-125	1		07/23/13 01:04	2037-26-5	
4-Bromofluorobenzene (S)	103	%	75-125	1		07/23/13 01:04	460-00-4	

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Sample: B-4 **Lab ID: 10235777004** Collected: 07/17/13 14:44 Received: 07/18/13 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO							
Diesel Range Organics	ND	mg/L	0.11	1	07/19/13 16:24	07/22/13 14:38		
Surrogates								
n-Triacontane (S)	81	%	50-150	1	07/19/13 16:24	07/22/13 14:38	638-68-6	P4
WIGRO GCV	Analytical Method: WI MOD GRO							
Gasoline Range Organics	ND	ug/L	100	1		07/25/13 18:42		
Surrogates								
a,a,a-Trifluorotoluene (S)	100	%	80-125	1		07/25/13 18:42	98-08-8	HS,pH
8260 VOC	Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	1		07/23/13 01:20	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		07/23/13 01:20	107-05-1	
Benzene	ND	ug/L	1.0	1		07/23/13 01:20	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/23/13 01:20	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/23/13 01:20	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/23/13 01:20	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/23/13 01:20	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/23/13 01:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		07/23/13 01:20	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		07/23/13 01:20	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		07/23/13 01:20	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/23/13 01:20	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		07/23/13 01:20	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/23/13 01:20	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/23/13 01:20	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/23/13 01:20	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/23/13 01:20	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/23/13 01:20	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/23/13 01:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		07/23/13 01:20	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		07/23/13 01:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/23/13 01:20	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		07/23/13 01:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 01:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 01:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 01:20	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/23/13 01:20	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/23/13 01:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/23/13 01:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/23/13 01:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/23/13 01:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/23/13 01:20	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		07/23/13 01:20	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/23/13 01:20	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/23/13 01:20	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		07/23/13 01:20	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/23/13 01:20	563-58-6	

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Sample: B-4 **Lab ID: 10235777004** Collected: 07/17/13 14:44 Received: 07/18/13 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/23/13 01:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/23/13 01:20	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		07/23/13 01:20	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		07/23/13 01:20	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/23/13 01:20	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/23/13 01:20	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		07/23/13 01:20	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		07/23/13 01:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		07/23/13 01:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/23/13 01:20	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		07/23/13 01:20	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		07/23/13 01:20	103-65-1	
Styrene	ND	ug/L	1.0	1		07/23/13 01:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/23/13 01:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/23/13 01:20	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		07/23/13 01:20	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		07/23/13 01:20	109-99-9	
Toluene	ND	ug/L	1.0	1		07/23/13 01:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/23/13 01:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/23/13 01:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/23/13 01:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/23/13 01:20	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		07/23/13 01:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/23/13 01:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		07/23/13 01:20	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		07/23/13 01:20	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		07/23/13 01:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		07/23/13 01:20	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		07/23/13 01:20	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/23/13 01:20	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%	75-125	1		07/23/13 01:20	17060-07-0	
Toluene-d8 (S)	99	%	75-125	1		07/23/13 01:20	2037-26-5	
4-Bromofluorobenzene (S)	103	%	75-125	1		07/23/13 01:20	460-00-4	

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Sample: Trip Blank **Lab ID: 10235777005** Collected: 07/17/13 00:00 Received: 07/18/13 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
Acetone	ND	ug/L	20.0	1		07/23/13 20:52	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		07/23/13 20:52	107-05-1	
Benzene	ND	ug/L	1.0	1		07/23/13 20:52	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		07/23/13 20:52	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		07/23/13 20:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		07/23/13 20:52	75-27-4	
Bromoform	ND	ug/L	4.0	1		07/23/13 20:52	75-25-2	
Bromomethane	ND	ug/L	4.0	1		07/23/13 20:52	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		07/23/13 20:52	78-93-3	
n-Butylbenzene	ND	ug/L	1.0	1		07/23/13 20:52	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		07/23/13 20:52	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		07/23/13 20:52	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		07/23/13 20:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		07/23/13 20:52	108-90-7	
Chloroethane	ND	ug/L	1.0	1		07/23/13 20:52	75-00-3	
Chloroform	ND	ug/L	1.0	1		07/23/13 20:52	67-66-3	
Chloromethane	ND	ug/L	4.0	1		07/23/13 20:52	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		07/23/13 20:52	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		07/23/13 20:52	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		07/23/13 20:52	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		07/23/13 20:52	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		07/23/13 20:52	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		07/23/13 20:52	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 20:52	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 20:52	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		07/23/13 20:52	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		07/23/13 20:52	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		07/23/13 20:52	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		07/23/13 20:52	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		07/23/13 20:52	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		07/23/13 20:52	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		07/23/13 20:52	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		07/23/13 20:52	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		07/23/13 20:52	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		07/23/13 20:52	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		07/23/13 20:52	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		07/23/13 20:52	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		07/23/13 20:52	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		07/23/13 20:52	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		07/23/13 20:52	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		07/23/13 20:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		07/23/13 20:52	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/23/13 20:52	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		07/23/13 20:52	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		07/23/13 20:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		07/23/13 20:52	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		07/23/13 20:52	1634-04-4	

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ANALYTICAL RESULTS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Sample: Trip Blank **Lab ID: 10235777005** Collected: 07/17/13 00:00 Received: 07/18/13 12:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 VOC	Analytical Method: EPA 8260							
Naphthalene	ND	ug/L	4.0	1		07/23/13 20:52	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		07/23/13 20:52	103-65-1	
Styrene	ND	ug/L	1.0	1		07/23/13 20:52	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		07/23/13 20:52	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		07/23/13 20:52	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		07/23/13 20:52	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		07/23/13 20:52	109-99-9	
Toluene	ND	ug/L	1.0	1		07/23/13 20:52	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		07/23/13 20:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		07/23/13 20:52	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		07/23/13 20:52	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		07/23/13 20:52	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		07/23/13 20:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		07/23/13 20:52	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		07/23/13 20:52	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		07/23/13 20:52	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		07/23/13 20:52	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		07/23/13 20:52	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		07/23/13 20:52	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		07/23/13 20:52	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%	75-125	1		07/23/13 20:52	17060-07-0	
Toluene-d8 (S)	100	%	75-125	1		07/23/13 20:52	2037-26-5	
4-Bromofluorobenzene (S)	102	%	75-125	1		07/23/13 20:52	460-00-4	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

QC Batch: GCV/11112 — Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO — Analysis Description: WIGRO GCV Water
Associated Lab Samples: 10235777001, 10235777002, 10235777003, 10235777004

METHOD BLANK: 1486035 — Matrix: Water
Associated Lab Samples: 10235777001, 10235777002, 10235777003, 10235777004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	ND	100	07/25/13 16:04	
a,a,a-Trifluorotoluene (S)	%	100	80-125	07/25/13 16:04	

LABORATORY CONTROL SAMPLE & LCSD: 1486036 1486037

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Gasoline Range Organics	ug/L	1000	1010	1050	101	105	80-120	4	20	
a,a,a-Trifluorotoluene (S)	%				95	98	80-125			

MATRIX SPIKE SAMPLE: 1488178

Parameter	Units	10235777003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Gasoline Range Organics	ug/L	ND	1000	1080	108	80-120	
a,a,a-Trifluorotoluene (S)	%				94	80-125	pH

SAMPLE DUPLICATE: 1488179

Parameter	Units	10235777004 Result	Dup Result	RPD	Max RPD	Qualifiers
Gasoline Range Organics	ug/L	ND	ND		20	
a,a,a-Trifluorotoluene (S)	%	100	99	1		HS,pH

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

QC Batch: MSV/24367 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10235777001, 10235777002, 10235777003, 10235777004

METHOD BLANK: 1484346 Matrix: Water
Associated Lab Samples: 10235777001, 10235777002, 10235777003, 10235777004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	07/22/13 20:10	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/22/13 20:10	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/22/13 20:10	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/22/13 20:10	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	07/22/13 20:10	
1,1-Dichloroethane	ug/L	ND	1.0	07/22/13 20:10	
1,1-Dichloroethene	ug/L	ND	1.0	07/22/13 20:10	
1,1-Dichloropropene	ug/L	ND	1.0	07/22/13 20:10	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	07/22/13 20:10	
1,2,3-Trichloropropane	ug/L	ND	4.0	07/22/13 20:10	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	07/22/13 20:10	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	07/22/13 20:10	
1,2-Dibromo-3-chloropropane	ug/L	ND	4.0	07/22/13 20:10	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/22/13 20:10	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/22/13 20:10	
1,2-Dichloroethane	ug/L	ND	1.0	07/22/13 20:10	
1,2-Dichloropropane	ug/L	ND	4.0	07/22/13 20:10	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	07/22/13 20:10	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/22/13 20:10	
1,3-Dichloropropane	ug/L	ND	1.0	07/22/13 20:10	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/22/13 20:10	
2,2-Dichloropropane	ug/L	ND	4.0	07/22/13 20:10	
2-Butanone (MEK)	ug/L	ND	5.0	07/22/13 20:10	
2-Chlorotoluene	ug/L	ND	1.0	07/22/13 20:10	
4-Chlorotoluene	ug/L	ND	1.0	07/22/13 20:10	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	07/22/13 20:10	
Acetone	ug/L	ND	20.0	07/22/13 20:10	
Allyl chloride	ug/L	ND	4.0	07/22/13 20:10	
Benzene	ug/L	ND	1.0	07/22/13 20:10	
Bromobenzene	ug/L	ND	1.0	07/22/13 20:10	
Bromochloromethane	ug/L	ND	1.0	07/22/13 20:10	
Bromodichloromethane	ug/L	ND	1.0	07/22/13 20:10	
Bromoform	ug/L	ND	4.0	07/22/13 20:10	
Bromomethane	ug/L	ND	4.0	07/22/13 20:10	
Carbon tetrachloride	ug/L	ND	1.0	07/22/13 20:10	
Chlorobenzene	ug/L	ND	1.0	07/22/13 20:10	
Chloroethane	ug/L	ND	1.0	07/22/13 20:10	
Chloroform	ug/L	ND	1.0	07/22/13 20:10	
Chloromethane	ug/L	ND	4.0	07/22/13 20:10	
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/22/13 20:10	
cis-1,3-Dichloropropene	ug/L	ND	4.0	07/22/13 20:10	
Dibromochloromethane	ug/L	ND	1.0	07/22/13 20:10	
Dibromomethane	ug/L	ND	4.0	07/22/13 20:10	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

METHOD BLANK: 1484346 Matrix: Water

Associated Lab Samples: 10235777001, 10235777002, 10235777003, 10235777004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	07/22/13 20:10	
Dichlorofluoromethane	ug/L	ND	1.0	07/22/13 20:10	
Diethyl ether (Ethyl ether)	ug/L	ND	4.0	07/22/13 20:10	
Ethylbenzene	ug/L	ND	1.0	07/22/13 20:10	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	07/22/13 20:10	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	07/22/13 20:10	
Methyl-tert-butyl ether	ug/L	ND	1.0	07/22/13 20:10	
Methylene Chloride	ug/L	ND	4.0	07/22/13 20:10	
n-Butylbenzene	ug/L	ND	1.0	07/22/13 20:10	
n-Propylbenzene	ug/L	ND	1.0	07/22/13 20:10	
Naphthalene	ug/L	ND	4.0	07/22/13 20:10	
p-Isopropyltoluene	ug/L	ND	1.0	07/22/13 20:10	
sec-Butylbenzene	ug/L	ND	1.0	07/22/13 20:10	
Styrene	ug/L	ND	1.0	07/22/13 20:10	
tert-Butylbenzene	ug/L	ND	1.0	07/22/13 20:10	
Tetrachloroethene	ug/L	ND	1.0	07/22/13 20:10	
Tetrahydrofuran	ug/L	ND	10.0	07/22/13 20:10	
Toluene	ug/L	ND	1.0	07/22/13 20:10	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/22/13 20:10	
trans-1,3-Dichloropropene	ug/L	ND	4.0	07/22/13 20:10	
Trichloroethene	ug/L	ND	0.40	07/22/13 20:10	
Trichlorofluoromethane	ug/L	ND	1.0	07/22/13 20:10	
Vinyl chloride	ug/L	ND	0.40	07/22/13 20:10	
Xylene (Total)	ug/L	ND	3.0	07/22/13 20:10	
1,2-Dichloroethane-d4 (S)	%	103	75-125	07/22/13 20:10	
4-Bromofluorobenzene (S)	%	101	75-125	07/22/13 20:10	
Toluene-d8 (S)	%	100	75-125	07/22/13 20:10	

LABORATORY CONTROL SAMPLE: 1484347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	18.9	95	75-125	
1,1,1-Trichloroethane	ug/L	20	20.4	102	75-126	
1,1,2,2-Tetrachloroethane	ug/L	20	19.4	97	75-125	
1,1,2-Trichloroethane	ug/L	20	19.7	98	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	16.2	81	51-139	
1,1-Dichloroethane	ug/L	20	20.1	100	75-125	
1,1-Dichloroethene	ug/L	20	19.6	98	71-126	
1,1-Dichloropropene	ug/L	20	19.5	97	74-125	
1,2,3-Trichlorobenzene	ug/L	20	18.0	90	75-125	
1,2,3-Trichloropropane	ug/L	20	19.9	100	75-125	
1,2,4-Trichlorobenzene	ug/L	20	18.0	90	75-125	
1,2,4-Trimethylbenzene	ug/L	20	18.6	93	75-125	
1,2-Dibromo-3-chloropropane	ug/L	50	49.4	99	73-125	
1,2-Dibromoethane (EDB)	ug/L	20	19.6	98	75-125	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

LABORATORY CONTROL SAMPLE: 1484347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichlorobenzene	ug/L	20	18.1	90	75-125	
1,2-Dichloroethane	ug/L	20	20.2	101	74-125	
1,2-Dichloropropane	ug/L	20	19.7	98	75-125	
1,3,5-Trimethylbenzene	ug/L	20	18.4	92	75-125	
1,3-Dichlorobenzene	ug/L	20	17.9	89	75-125	
1,3-Dichloropropane	ug/L	20	18.6	93	75-125	
1,4-Dichlorobenzene	ug/L	20	17.9	89	75-125	
2,2-Dichloropropane	ug/L	20	20.5	102	67-132	
2-Butanone (MEK)	ug/L	100	107	107	68-126	
2-Chlorotoluene	ug/L	20	18.1	90	74-125	
4-Chlorotoluene	ug/L	20	18.5	92	74-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	101	101	72-125	
Acetone	ug/L	100	101	101	69-132	
Allyl chloride	ug/L	20	19.8	99	74-125	
Benzene	ug/L	20	18.6	93	75-125	
Bromobenzene	ug/L	20	17.7	88	75-125	
Bromochloromethane	ug/L	20	19.8	99	75-125	
Bromodichloromethane	ug/L	20	19.8	99	75-125	
Bromoform	ug/L	20	19.1	95	75-126	
Bromomethane	ug/L	20	18.4	92	30-150	
Carbon tetrachloride	ug/L	20	19.5	97	74-127	
Chlorobenzene	ug/L	20	17.8	89	75-125	
Chloroethane	ug/L	20	22.6	113	68-132	
Chloroform	ug/L	20	18.3	92	75-125	
Chloromethane	ug/L	20	19.4	97	61-129	
cis-1,2-Dichloroethene	ug/L	20	20.1	101	75-125	
cis-1,3-Dichloropropene	ug/L	20	19.4	97	75-125	
Dibromochloromethane	ug/L	20	19.6	98	75-125	
Dibromomethane	ug/L	20	18.9	95	75-125	
Dichlorodifluoromethane	ug/L	20	15.2	76	49-137	
Dichlorofluoromethane	ug/L	20	20.7	103	66-133	
Diethyl ether (Ethyl ether)	ug/L	20	20.1	100	75-125	
Ethylbenzene	ug/L	20	17.7	88	75-125	
Hexachloro-1,3-butadiene	ug/L	20	17.7	89	69-127	
Isopropylbenzene (Cumene)	ug/L	20	18.5	92	75-125	
Methyl-tert-butyl ether	ug/L	20	21.1	106	74-126	
Methylene Chloride	ug/L	20	19.0	95	75-125	
n-Butylbenzene	ug/L	20	17.8	89	72-126	
n-Propylbenzene	ug/L	20	17.6	88	73-125	
Naphthalene	ug/L	20	19.3	96	75-125	
p-Isopropyltoluene	ug/L	20	18.4	92	74-125	
sec-Butylbenzene	ug/L	20	18.1	91	73-125	
Styrene	ug/L	20	19.2	96	75-125	
tert-Butylbenzene	ug/L	20	18.2	91	73-125	
Tetrachloroethene	ug/L	20	17.9	89	75-125	
Tetrahydrofuran	ug/L	200	183	92	71-125	
Toluene	ug/L	20	17.7	88	75-125	
trans-1,2-Dichloroethene	ug/L	20	19.6	98	74-125	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

LABORATORY CONTROL SAMPLE: 1484347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,3-Dichloropropene	ug/L	20	20.2	101	75-125	
Trichloroethene	ug/L	20	18.2	91	75-125	
Trichlorofluoromethane	ug/L	20	19.2	96	69-129	
Vinyl chloride	ug/L	20	19.9	100	70-128	
Xylene (Total)	ug/L	60	55.5	92	75-125	
1,2-Dichloroethane-d4 (S)	%			104	75-125	
4-Bromofluorobenzene (S)	%			101	75-125	
Toluene-d8 (S)	%			101	75-125	

MATRIX SPIKE SAMPLE: 1484348

Parameter	Units	10235778003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	19.9	99	75-125	
1,1,1-Trichloroethane	ug/L	ND	20	22.5	112	75-136	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.8	99	66-131	
1,1,2-Trichloroethane	ug/L	ND	20	20.1	101	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	20	28.7	143	75-150	
1,1-Dichloroethane	ug/L	ND	20	21.9	109	75-131	
1,1-Dichloroethene	ug/L	ND	20	21.3	107	75-138	
1,1-Dichloropropene	ug/L	ND	20	22.1	110	75-136	
1,2,3-Trichlorobenzene	ug/L	ND	20	18.1	90	75-125	
1,2,3-Trichloropropane	ug/L	ND	20	19.7	98	71-126	
1,2,4-Trichlorobenzene	ug/L	ND	20	18.3	92	75-125	
1,2,4-Trimethylbenzene	ug/L	ND	20	19.7	99	70-126	
1,2-Dibromo-3-chloropropane	ug/L	ND	50	48.9	98	69-127	
1,2-Dibromoethane (EDB)	ug/L	ND	20	19.9	100	75-125	
1,2-Dichlorobenzene	ug/L	ND	20	19.0	94	75-125	
1,2-Dichloroethane	ug/L	ND	20	20.6	103	74-128	
1,2-Dichloropropane	ug/L	ND	20	20.7	104	75-125	
1,3,5-Trimethylbenzene	ug/L	ND	20	19.6	98	72-126	
1,3-Dichlorobenzene	ug/L	ND	20	18.9	95	75-125	
1,3-Dichloropropane	ug/L	ND	20	19.3	97	75-125	
1,4-Dichlorobenzene	ug/L	ND	20	18.6	93	75-125	
2,2-Dichloropropane	ug/L	ND	20	20.7	103	71-143	
2-Butanone (MEK)	ug/L	ND	100	98.8	99	64-125	
2-Chlorotoluene	ug/L	ND	20	19.5	98	74-125	
4-Chlorotoluene	ug/L	ND	20	19.4	97	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	103	103	69-125	
Acetone	ug/L	ND	100	113	108	57-135	
Allyl chloride	ug/L	ND	20	22.0	110	73-134	
Benzene	ug/L	ND	20	20.1	100	70-135	
Bromobenzene	ug/L	ND	20	18.6	93	75-125	
Bromochloromethane	ug/L	ND	20	20.1	100	75-125	
Bromodichloromethane	ug/L	ND	20	21.1	106	75-125	
Bromoform	ug/L	ND	20	18.7	93	68-133	
Bromomethane	ug/L	ND	20	20.2	101	56-150	
Carbon tetrachloride	ug/L	ND	20	22.6	113	75-137	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

MATRIX SPIKE SAMPLE: 1484348

Parameter	Units	10235778003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chlorobenzene	ug/L	ND	20	19.4	97	75-125	
Chloroethane	ug/L	ND	20	23.1	115	64-150	
Chloroform	ug/L	ND	20	19.7	99	75-127	
Chloromethane	ug/L	ND	20	20.9	105	65-140	
cis-1,2-Dichloroethene	ug/L	ND	20	21.5	107	75-129	
cis-1,3-Dichloropropene	ug/L	ND	20	19.8	99	75-125	
Dibromochloromethane	ug/L	ND	20	20.5	102	75-125	
Dibromomethane	ug/L	ND	20	19.4	97	75-125	
Dichlorodifluoromethane	ug/L	ND	20	27.5	138	70-150	
Dichlorofluoromethane	ug/L	ND	20	22.7	113	69-142	
Diethyl ether (Ethyl ether)	ug/L	ND	20	19.9	100	75-125	
Ethylbenzene	ug/L	ND	20	18.9	95	75-125	
Hexachloro-1,3-butadiene	ug/L	ND	20	16.8	84	75-135	
Isopropylbenzene (Cumene)	ug/L	ND	20	20.1	101	75-125	
Methyl-tert-butyl ether	ug/L	ND	20	20.6	103	70-132	
Methylene Chloride	ug/L	ND	20	19.2	96	73-125	
n-Butylbenzene	ug/L	ND	20	19.2	96	75-130	
n-Propylbenzene	ug/L	ND	20	19.3	96	75-128	
Naphthalene	ug/L	ND	20	19.3	97	73-126	
p-Isopropyltoluene	ug/L	ND	20	19.8	99	75-125	
sec-Butylbenzene	ug/L	ND	20	19.8	99	75-126	
Styrene	ug/L	ND	20	19.9	100	52-137	
tert-Butylbenzene	ug/L	ND	20	19.9	100	75-125	
Tetrachloroethene	ug/L	ND	20	20.2	101	75-130	
Tetrahydrofuran	ug/L	ND	200	201	100	69-125	
Toluene	ug/L	ND	20	19.5	98	75-125	
trans-1,2-Dichloroethene	ug/L	ND	20	22.1	111	75-135	
trans-1,3-Dichloropropene	ug/L	ND	20	20.4	102	75-125	
Trichloroethene	ug/L	ND	20	20.3	101	75-129	
Trichlorofluoromethane	ug/L	ND	20	25.3	127	75-150	
Vinyl chloride	ug/L	ND	20	22.4	112	75-147	
Xylene (Total)	ug/L	ND	60	60.0	100	75-125	
1,2-Dichloroethane-d4 (S)	%				100	75-125	
4-Bromofluorobenzene (S)	%				100	75-125	
Toluene-d8 (S)	%				100	75-125	

SAMPLE DUPLICATE: 1484349

Parameter	Units	10235765010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L		ND		30	
1,1,1-Trichloroethane	ug/L		ND		30	
1,1,2,2-Tetrachloroethane	ug/L		ND		30	
1,1,2-Trichloroethane	ug/L		ND		30	
1,1,2-Trichlorotrifluoroethane	ug/L		ND		30	
1,1-Dichloroethane	ug/L		ND		30	
1,1-Dichloroethene	ug/L		ND		30	
1,1-Dichloropropene	ug/L		ND		30	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

SAMPLE DUPLICATE: 1484349

Parameter	Units	10235765010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,3-Trichlorobenzene	ug/L		ND		30	
1,2,3-Trichloropropane	ug/L		ND		30	
1,2,4-Trichlorobenzene	ug/L		ND		30	
1,2,4-Trimethylbenzene	ug/L		ND		30	
1,2-Dibromo-3-chloropropane	ug/L		ND		30	
1,2-Dibromoethane (EDB)	ug/L		ND		30	
1,2-Dichlorobenzene	ug/L		ND		30	
1,2-Dichloroethane	ug/L		ND		30	
1,2-Dichloropropane	ug/L		ND		30	
1,3,5-Trimethylbenzene	ug/L		ND		30	
1,3-Dichlorobenzene	ug/L		ND		30	
1,3-Dichloropropane	ug/L		ND		30	
1,4-Dichlorobenzene	ug/L		ND		30	
2,2-Dichloropropane	ug/L		ND		30	
2-Butanone (MEK)	ug/L		ND		30	
2-Chlorotoluene	ug/L		ND		30	
4-Chlorotoluene	ug/L		ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L		ND		30	
Acetone	ug/L		ND		30	
Allyl chloride	ug/L		.27J		30	
Benzene	ug/L		ND		30	
Bromobenzene	ug/L		ND		30	
Bromochloromethane	ug/L		ND		30	
Bromodichloromethane	ug/L		ND		30	
Bromoform	ug/L		ND		30	
Bromomethane	ug/L		ND		30	
Carbon tetrachloride	ug/L		ND		30	
Chlorobenzene	ug/L		ND		30	
Chloroethane	ug/L		ND		30	
Chloroform	ug/L		ND		30	
Chloromethane	ug/L		ND		30	
cis-1,2-Dichloroethene	ug/L		ND		30	
cis-1,3-Dichloropropene	ug/L		ND		30	
Dibromochloromethane	ug/L		ND		30	
Dibromomethane	ug/L		ND		30	
Dichlorodifluoromethane	ug/L		ND		30	
Dichlorofluoromethane	ug/L		ND		30	
Diethyl ether (Ethyl ether)	ug/L		ND		30	
Ethylbenzene	ug/L		.48J		30	
Hexachloro-1,3-butadiene	ug/L		ND		30	
Isopropylbenzene (Cumene)	ug/L		ND		30	
Methyl-tert-butyl ether	ug/L		ND		30	
Methylene Chloride	ug/L		ND		30	
n-Butylbenzene	ug/L		ND		30	
n-Propylbenzene	ug/L		ND		30	
Naphthalene	ug/L		ND		30	
p-Isopropyltoluene	ug/L		ND		30	
sec-Butylbenzene	ug/L		ND		30	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

SAMPLE DUPLICATE: 1484349

Parameter	Units	10235765010 Result	Dup Result	RPD	Max RPD	Qualifiers
Styrene	ug/L		ND		30	
tert-Butylbenzene	ug/L		ND		30	
Tetrachloroethene	ug/L		ND		30	
Tetrahydrofuran	ug/L		ND		30	
Toluene	ug/L		.65J		30	
trans-1,2-Dichloroethene	ug/L		ND		30	
trans-1,3-Dichloropropene	ug/L		ND		30	
Trichloroethene	ug/L		ND		30	
Trichlorofluoromethane	ug/L		ND		30	
Vinyl chloride	ug/L		ND		30	
Xylene (Total)	ug/L		ND		30	
1,2-Dichloroethane-d4 (S)	%		101	1		HS
4-Bromofluorobenzene (S)	%		103	1		
Toluene-d8 (S)	%		100	.5		

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

QC Batch: MSV/24377 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV 465 W
Associated Lab Samples: 10235777005

METHOD BLANK: 1485050 | Matrix: Water
Associated Lab Samples: 10235777005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	07/23/13 20:37	
1,1,1-Trichloroethane	ug/L	ND	1.0	07/23/13 20:37	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/23/13 20:37	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/23/13 20:37	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	07/23/13 20:37	
1,1-Dichloroethane	ug/L	ND	1.0	07/23/13 20:37	
1,1-Dichloroethene	ug/L	ND	1.0	07/23/13 20:37	
1,1-Dichloropropene	ug/L	ND	1.0	07/23/13 20:37	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	07/23/13 20:37	
1,2,3-Trichloropropane	ug/L	ND	4.0	07/23/13 20:37	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	07/23/13 20:37	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	07/23/13 20:37	
1,2-Dibromo-3-chloropropane	ug/L	ND	4.0	07/23/13 20:37	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	07/23/13 20:37	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/23/13 20:37	
1,2-Dichloroethane	ug/L	ND	1.0	07/23/13 20:37	
1,2-Dichloropropane	ug/L	ND	4.0	07/23/13 20:37	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	07/23/13 20:37	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/23/13 20:37	
1,3-Dichloropropane	ug/L	ND	1.0	07/23/13 20:37	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/23/13 20:37	
2,2-Dichloropropane	ug/L	ND	4.0	07/23/13 20:37	
2-Butanone (MEK)	ug/L	ND	5.0	07/23/13 20:37	
2-Chlorotoluene	ug/L	ND	1.0	07/23/13 20:37	
4-Chlorotoluene	ug/L	ND	1.0	07/23/13 20:37	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	07/23/13 20:37	
Acetone	ug/L	ND	20.0	07/23/13 20:37	
Allyl chloride	ug/L	ND	4.0	07/23/13 20:37	
Benzene	ug/L	ND	1.0	07/23/13 20:37	
Bromobenzene	ug/L	ND	1.0	07/23/13 20:37	
Bromochloromethane	ug/L	ND	1.0	07/23/13 20:37	
Bromodichloromethane	ug/L	ND	1.0	07/23/13 20:37	
Bromoform	ug/L	ND	4.0	07/23/13 20:37	
Bromomethane	ug/L	ND	4.0	07/23/13 20:37	
Carbon tetrachloride	ug/L	ND	1.0	07/23/13 20:37	
Chlorobenzene	ug/L	ND	1.0	07/23/13 20:37	
Chloroethane	ug/L	ND	1.0	07/23/13 20:37	
Chloroform	ug/L	ND	1.0	07/23/13 20:37	
Chloromethane	ug/L	ND	4.0	07/23/13 20:37	
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/23/13 20:37	
cis-1,3-Dichloropropene	ug/L	ND	4.0	07/23/13 20:37	
Dibromochloromethane	ug/L	ND	1.0	07/23/13 20:37	
Dibromomethane	ug/L	ND	4.0	07/23/13 20:37	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

METHOD BLANK: 1485050 Matrix: Water

Associated Lab Samples: 10235777005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	07/23/13 20:37	
Dichlorofluoromethane	ug/L	ND	1.0	07/23/13 20:37	
Diethyl ether (Ethyl ether)	ug/L	ND	4.0	07/23/13 20:37	
Ethylbenzene	ug/L	ND	1.0	07/23/13 20:37	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	07/23/13 20:37	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	07/23/13 20:37	
Methyl-tert-butyl ether	ug/L	ND	1.0	07/23/13 20:37	
Methylene Chloride	ug/L	ND	4.0	07/23/13 20:37	
n-Butylbenzene	ug/L	ND	1.0	07/23/13 20:37	
n-Propylbenzene	ug/L	ND	1.0	07/23/13 20:37	
Naphthalene	ug/L	ND	4.0	07/23/13 20:37	
p-Isopropyltoluene	ug/L	ND	1.0	07/23/13 20:37	
sec-Butylbenzene	ug/L	ND	1.0	07/23/13 20:37	
Styrene	ug/L	ND	1.0	07/23/13 20:37	
tert-Butylbenzene	ug/L	ND	1.0	07/23/13 20:37	
Tetrachloroethene	ug/L	ND	1.0	07/23/13 20:37	
Tetrahydrofuran	ug/L	ND	10.0	07/23/13 20:37	
Toluene	ug/L	ND	1.0	07/23/13 20:37	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/23/13 20:37	
trans-1,3-Dichloropropene	ug/L	ND	4.0	07/23/13 20:37	
Trichloroethene	ug/L	ND	0.40	07/23/13 20:37	
Trichlorofluoromethane	ug/L	ND	1.0	07/23/13 20:37	
Vinyl chloride	ug/L	ND	0.40	07/23/13 20:37	
Xylene (Total)	ug/L	ND	3.0	07/23/13 20:37	
1,2-Dichloroethane-d4 (S)	%	99	75-125	07/23/13 20:37	
4-Bromofluorobenzene (S)	%	102	75-125	07/23/13 20:37	
Toluene-d8 (S)	%	100	75-125	07/23/13 20:37	

LABORATORY CONTROL SAMPLE: 1485051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	19.3	96	75-125	
1,1,1-Trichloroethane	ug/L	20	19.7	98	75-126	
1,1,2,2-Tetrachloroethane	ug/L	20	19.0	95	75-125	
1,1,2-Trichloroethane	ug/L	20	19.6	98	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	20	15.8	79	51-139	
1,1-Dichloroethane	ug/L	20	18.2	91	75-125	
1,1-Dichloroethene	ug/L	20	17.5	88	71-126	
1,1-Dichloropropene	ug/L	20	18.6	93	74-125	
1,2,3-Trichlorobenzene	ug/L	20	17.7	88	75-125	
1,2,3-Trichloropropane	ug/L	20	20.1	100	75-125	
1,2,4-Trichlorobenzene	ug/L	20	17.2	86	75-125	
1,2,4-Trimethylbenzene	ug/L	20	18.2	91	75-125	
1,2-Dibromo-3-chloropropane	ug/L	50	47.7	95	73-125	
1,2-Dibromoethane (EDB)	ug/L	20	19.2	96	75-125	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

LABORATORY CONTROL SAMPLE: 1485051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichlorobenzene	ug/L	20	18.2	91	75-125	
1,2-Dichloroethane	ug/L	20	19.4	97	74-125	
1,2-Dichloropropane	ug/L	20	19.2	96	75-125	
1,3,5-Trimethylbenzene	ug/L	20	17.9	90	75-125	
1,3-Dichlorobenzene	ug/L	20	17.7	88	75-125	
1,3-Dichloropropane	ug/L	20	18.5	93	75-125	
1,4-Dichlorobenzene	ug/L	20	17.7	89	75-125	
2,2-Dichloropropane	ug/L	20	18.7	93	67-132	
2-Butanone (MEK)	ug/L	100	96.9	97	68-126	
2-Chlorotoluene	ug/L	20	18.2	91	74-125	
4-Chlorotoluene	ug/L	20	18.1	90	74-125	
4-Methyl-2-pentanone (MIBK)	ug/L	100	98.5	98	72-125	
Acetone	ug/L	100	101	101	69-132	
Allyl chloride	ug/L	20	18.1	91	74-125	
Benzene	ug/L	20	17.9	89	75-125	
Bromobenzene	ug/L	20	17.6	88	75-125	
Bromochloromethane	ug/L	20	18.5	93	75-125	
Bromodichloromethane	ug/L	20	19.6	98	75-125	
Bromoform	ug/L	20	18.9	94	75-126	
Bromomethane	ug/L	20	13.8	69	30-150	
Carbon tetrachloride	ug/L	20	19.0	95	74-127	
Chlorobenzene	ug/L	20	18.0	90	75-125	
Chloroethane	ug/L	20	20.5	102	68-132	
Chloroform	ug/L	20	17.9	89	75-125	
Chloromethane	ug/L	20	17.3	87	61-129	
cis-1,2-Dichloroethene	ug/L	20	19.4	97	75-125	
cis-1,3-Dichloropropene	ug/L	20	18.7	94	75-125	
Dibromochloromethane	ug/L	20	19.4	97	75-125	
Dibromomethane	ug/L	20	18.5	92	75-125	
Dichlorodifluoromethane	ug/L	20	14.2	71	49-137	
Dichlorofluoromethane	ug/L	20	19.7	99	66-133	
Diethyl ether (Ethyl ether)	ug/L	20	18.5	92	75-125	
Ethylbenzene	ug/L	20	17.4	87	75-125	
Hexachloro-1,3-butadiene	ug/L	20	15.2	76	69-127	
Isopropylbenzene (Cumene)	ug/L	20	18.4	92	75-125	
Methyl-tert-butyl ether	ug/L	20	17.9	90	74-126	
Methylene Chloride	ug/L	20	17.4	87	75-125	
n-Butylbenzene	ug/L	20	17.2	86	72-126	
n-Propylbenzene	ug/L	20	17.6	88	73-125	
Naphthalene	ug/L	20	18.6	93	75-125	
p-Isopropyltoluene	ug/L	20	17.9	90	74-125	
sec-Butylbenzene	ug/L	20	17.8	89	73-125	
Styrene	ug/L	20	18.9	95	75-125	
tert-Butylbenzene	ug/L	20	18.2	91	73-125	
Tetrachloroethene	ug/L	20	18.0	90	75-125	
Tetrahydrofuran	ug/L	200	186	93	71-125	
Toluene	ug/L	20	18.0	90	75-125	
trans-1,2-Dichloroethene	ug/L	20	18.2	91	74-125	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

LABORATORY CONTROL SAMPLE: 1485051

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,3-Dichloropropene	ug/L	20	19.4	97	75-125	
Trichloroethene	ug/L	20	18.4	92	75-125	
Trichlorofluoromethane	ug/L	20	18.6	93	69-129	
Vinyl chloride	ug/L	20	18.2	91	70-128	
Xylene (Total)	ug/L	60	55.1	92	75-125	
1,2-Dichloroethane-d4 (S)	%			99	75-125	
4-Bromofluorobenzene (S)	%			99	75-125	
Toluene-d8 (S)	%			100	75-125	

MATRIX SPIKE SAMPLE: 1485052

Parameter	Units	10235692001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	19.7	99	75-125	
1,1,1-Trichloroethane	ug/L	ND	20	22.0	110	75-136	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	19.1	95	66-131	
1,1,2-Trichloroethane	ug/L	ND	20	19.8	99	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	20	27.3	137	75-150	
1,1-Dichloroethane	ug/L	ND	20	20.5	102	75-131	
1,1-Dichloroethene	ug/L	ND	20	20.5	103	75-138	
1,1-Dichloropropene	ug/L	ND	20	21.4	107	75-136	
1,2,3-Trichlorobenzene	ug/L	ND	20	17.9	90	75-125	
1,2,3-Trichloropropane	ug/L	ND	20	19.6	98	71-126	
1,2,4-Trichlorobenzene	ug/L	ND	20	17.5	87	75-125	
1,2,4-Trimethylbenzene	ug/L	ND	20	19.3	97	70-126	
1,2-Dibromo-3-chloropropane	ug/L	ND	50	46.6	93	69-127	
1,2-Dibromoethane (EDB)	ug/L	ND	20	19.4	97	75-125	
1,2-Dichlorobenzene	ug/L	ND	20	18.6	93	75-125	
1,2-Dichloroethane	ug/L	ND	20	19.6	98	74-128	
1,2-Dichloropropane	ug/L	ND	20	19.7	98	75-125	
1,3,5-Trimethylbenzene	ug/L	ND	20	19.3	97	72-126	
1,3-Dichlorobenzene	ug/L	ND	20	18.5	93	75-125	
1,3-Dichloropropane	ug/L	ND	20	18.7	93	75-125	
1,4-Dichlorobenzene	ug/L	ND	20	18.3	92	75-125	
2,2-Dichloropropane	ug/L	ND	20	20.2	101	71-143	
2-Butanone (MEK)	ug/L	ND	100	93.1	93	64-125	
2-Chlorotoluene	ug/L	ND	20	19.2	96	74-125	
4-Chlorotoluene	ug/L	ND	20	19.1	96	75-125	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	95.1	95	69-125	
Acetone	ug/L	ND	100	106	106	57-135	
Allyl chloride	ug/L	ND	20	19.7	99	73-134	
Benzene	ug/L	ND	20	18.9	94	70-135	
Bromobenzene	ug/L	ND	20	18.4	92	75-125	
Bromochloromethane	ug/L	ND	20	19.0	95	75-125	
Bromodichloromethane	ug/L	ND	20	20.0	100	75-125	
Bromoform	ug/L	ND	20	18.9	95	68-133	
Bromomethane	ug/L	ND	20	15.1	75	56-150	
Carbon tetrachloride	ug/L	ND	20	21.7	109	75-137	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

MATRIX SPIKE SAMPLE: 1485052

Parameter	Units	10235692001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chlorobenzene	ug/L	ND	20	18.9	94	75-125	
Chloroethane	ug/L	ND	20	21.8	109	64-150	
Chloroform	ug/L	ND	20	18.6	93	75-127	
Chloromethane	ug/L	ND	20	18.6	93	65-140	
cis-1,2-Dichloroethene	ug/L	ND	20	19.8	99	75-129	
cis-1,3-Dichloropropene	ug/L	ND	20	19.1	96	75-125	
Dibromochloromethane	ug/L	ND	20	20.1	101	75-125	
Dibromomethane	ug/L	ND	20	18.4	92	75-125	
Dichlorodifluoromethane	ug/L	ND	20	26.2	131	70-150	
Dichlorofluoromethane	ug/L	ND	20	20.8	104	69-142	
Diethyl ether (Ethyl ether)	ug/L	ND	20	18.4	92	75-125	
Ethylbenzene	ug/L	ND	20	18.8	94	75-125	
Hexachloro-1,3-butadiene	ug/L	ND	20	17.7	89	75-135	
Isopropylbenzene (Cumene)	ug/L	ND	20	20.1	100	75-125	
Methyl-tert-butyl ether	ug/L	3.6	20	23.1	98	70-132	
Methylene Chloride	ug/L	ND	20	17.7	88	73-125	
n-Butylbenzene	ug/L	ND	20	19.2	96	75-130	
n-Propylbenzene	ug/L	ND	20	19.1	96	75-128	
Naphthalene	ug/L	ND	20	18.2	91	73-126	
p-Isopropyltoluene	ug/L	ND	20	19.6	98	75-125	
sec-Butylbenzene	ug/L	ND	20	19.6	98	75-126	
Styrene	ug/L	ND	20	19.9	100	52-137	
tert-Butylbenzene	ug/L	ND	20	19.7	99	75-125	
Tetrachloroethene	ug/L	ND	20	19.7	98	75-130	
Tetrahydrofuran	ug/L	ND	200	189	95	69-125	
Toluene	ug/L	ND	20	18.8	94	75-125	
trans-1,2-Dichloroethene	ug/L	ND	20	19.6	98	75-135	
trans-1,3-Dichloropropene	ug/L	ND	20	20.0	100	75-125	
Trichloroethene	ug/L	ND	20	19.3	97	75-129	
Trichlorofluoromethane	ug/L	ND	20	23.8	119	75-150	
Vinyl chloride	ug/L	ND	20	20.5	102	75-147	
Xylene (Total)	ug/L	ND	60	58.5	97	75-125	
1,2-Dichloroethane-d4 (S)	%				99	75-125	
4-Bromofluorobenzene (S)	%				100	75-125	
Toluene-d8 (S)	%				100	75-125	

SAMPLE DUPLICATE: 1486901

Parameter	Units	10235692002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

SAMPLE DUPLICATE: 1486901

Parameter	Units	10235692002 Result	Dup Result	RPD	Max RPD	Qualifiers
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	
Allyl chloride	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Dichlorofluoromethane	ug/L	ND	ND		30	
Diethyl ether (Ethyl ether)	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

SAMPLE DUPLICATE: 1486901

Parameter	Units	10235692002 Result	Dup Result	RPD	Max RPD	Qualifiers
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	ND	ND		30	
Tetrahydrofuran	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%	100	99	2		
4-Bromofluorobenzene (S)	%	101	101	.6		
Toluene-d8 (S)	%	100	99	.8		

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QUALITY CONTROL DATA

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

QC Batch: OEXT/22368 Analysis Method: WI MOD DRO
QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS
Associated Lab Samples: 10235777001, 10235777002, 10235777003, 10235777004

METHOD BLANK: 1483022 Matrix: Water
Associated Lab Samples: 10235777001, 10235777002, 10235777003, 10235777004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/L	ND	0.10	07/22/13 13:29	
n-Triacontane (S)	%	86	50-150	07/22/13 13:29	

LABORATORY CONTROL SAMPLE & LCSD: 1483023 1483024

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Range Organics	mg/L	2	1.7	1.8	87	90	75-115	3	20	
n-Triacontane (S)	%				89	93	50-150			

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QUALIFIERS

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

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.

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
P4	Sample field preservation does not meet EPA or method recommendations for this analysis.
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

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without the written consent of Pace Analytical Services, Inc..

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 9586 PRINCETON EDA PHASE II
Pace Project No.: 10235777

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10235777001	**B-1**	WI MOD DRO	OEXT/22368	WI MOD DRO	GCSV/11720
10235777002	**B-2**	WI MOD DRO	OEXT/22368	WI MOD DRO	GCSV/11720
10235777003	**B-3**	WI MOD DRO	OEXT/22368	WI MOD DRO	GCSV/11720
10235777004	**B-4**	WI MOD DRO	OEXT/22368	WI MOD DRO	GCSV/11720
10235777001	**B-1**	WI MOD GRO	GCV/11112		
10235777002	**B-2**	WI MOD GRO	GCV/11112		
10235777003	**B-3**	WI MOD GRO	GCV/11112		
10235777004	**B-4**	WI MOD GRO	GCV/11112		
10235777001	**B-1**	EPA 8260	MSV/24367		
10235777002	**B-2**	EPA 8260	MSV/24367		
10235777003	**B-3**	EPA 8260	MSV/24367		
10235777004	**B-4**	EPA 8260	MSV/24367		
10235777005	**Trip Blank**	EPA 8260	MSV/24377		

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www.pacelabs.com

1123

CHAIN-OF-CUSTODY / Analytical Request Document

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

10235777

Page: of

1753116

Section A Required Client Information:

Company: WCEC
Address: 11265 91st Ave. N.
Maple Grove MN 55369
Email To: scarlson@wcec.com
Phone: 763-571-4944 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Steve Carlson
Copy To:
Purchase Order No.:
Project Name: Princeton EDA Phase II
Project Number: 9586

Section C Invoice Information:

Attention: Sheldon Giese
Company Name: WCEC
Address: 14 Green River Rd, Morris MN
Pace Quote Reference:
Pace Project Manager: Diane Anderson
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: VOC	GRO	DRO	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	B-1	WT	G			7/18/13	16:20		7				7					2	2	2		001
2	B-2	↓	↓			↓	9:10		7				7					2	2	2		002
3	B-3	↓	↓			↓	11:07		7				7					2	2	2		003
4	B-4	↓	↓			↓	14:44		7				7					2	2	2		004
5	trip Blank	WT	↓			↓			2				2					2				
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Greg Funk WCEC	7/18/13	9:00	AA/PMA	7/18/13	11:05				
	AA/PMA	7/18/13	12:50	AA/PMA	7/18/13	12:50				
				[illegible]	7/18/13	12:50	3.3	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Greg Funk

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 7/17/13

...ble for ... are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 28Jan2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.06	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: WCEC

Project #: WO#: 10235777

10235777

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace ☐ Other:

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 ☐ None ☐ Other: **Temp Blank?** ☒ Yes ☐ No

Thermom. Used: ☒ B88A912167504 ☐ 80512447 ☐ 72337080 **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 3.3 **Cooler Temp Corrected (°C):** 3.3 **Biological Tissue Frozen?** ☐ Yes ☐ No

Temp should be above freezing to 6°C **Correction Factor:** 0.0 **Date and Initials of Person Examining Contents:** 7/18/13

Comments:

Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☒ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☒ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	7.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	11.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☒ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	☐ Yes	☐ No	☒ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH>12)	☐ Yes	☐ No	☒ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	☒ Yes	☐ No		Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☒ Yes	☐ No	~~☐ N/A~~	14.
Trip Blank Present?	☒ Yes	☐ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☒ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): ~~062513-1~~ 501413-1				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Mariah Kleint **Date:** 7/19/13

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)

PROPERTY INSPECTION REPORT

By: Institute for Environmental Assessment, Inc.

July 24, 2013

Providing Trusted
Health & Safety Solutions

Steve Carlson
West Central Environmental Consultants
11265 91st Avenue North
Maple Grove, MN 55369

RE: 903 Ninth Avenue North, Princeton, MN
Asbestos, and Lead Inspection
IEA Project #201310602

Dear Steve,

Enclosed please find the inspection report for the above-referenced location.

If you have any questions or require further assistance, please do not hesitate to contact me at 763-315-7900.

Sincerely,

IEA, Inc.

Michael Voss
Senior Project Manager

MV/wb 072513

Enc.

cc File

ASBESTOS AND LEAD INSPECTION PROFILE

Princeton Gas Station
903 Ninth Avenue North
Princeton, MN 55371

July 25, 2013

Submitted to:

Steve Carlson
West Central Environmental Consultants

Submitted by:
Institute for Environmental Assessment
9201 West Broadway North, Suite 600
Brooklyn Park, MN 55445-1922

763-315-7900 / 800-233-9513

IEA Project #201310602

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- Lead-Based Paint Inspection Report

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- Asbestos and Lead Inspector's Licenses

SECTION I

Asbestos Summary and Inspection Report

Asbestos Summary
Princeton Gas Station
903 Ninth Avenue North
Princeton, MN 55371

On July 16, 2013, an inspection for asbestos-containing materials (ACM) was performed at the above-referenced location. The scope of the inspection included all suspect ACM within the building. Suspect ACM was identified and sampled for asbestos content.

Identified materials confirmed to be ACM include the following:

- 12" x 12" Floor Tile
- 9" x 9" Floor Tile
- Exterior Tar on Stucco
- Exterior Window Caulk
- Transite Wall Panels

The following materials were identified and confirmed to contain one percent or less (≤1%) asbestos. By definition, materials which contain greater than one percent (>1%) asbestos are considered asbestos-containing materials (ACM). Although these materials do not meet the definition of ACM, workers should be informed of the presence of asbestos and comply with applicable OSHA requirements.

Identified materials found to be ≤1% asbestos include the following:

- Drywall and Joint Compound (Composite Analysis)

Specific locations of these materials, as well as those suspect materials which were analyzed and were found not to contain asbestos, are identified in the attached report.

This inspection meets the requirements of the Minnesota Pollution Control Agency (MPCA) and Minnesota OSHA (MNOSHA) for an asbestos demolition/renovation inspection.

Bulk samples of accessible suspect material were collected and analyzed in accordance with Environmental Protection Agency (EPA) sampling and analytical procedure requirements. Sampling was conducted in a manner determined by the inspector to be sufficient to identify whether the suspect materials are asbestos containing.

The purpose of the inspection was to identify all suspect materials that may contain asbestos prior to demolition. Any suspect materials not identified on the survey that are uncovered prior to demolition should be assumed to contain asbestos or sampled.

GENERAL COMMENTS

The report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted practices. Other than as provided in the preceding sentence and in our Proposal #3017A dated March 11, 2013 regarding Hazardous Materials Assessments at 903 Ninth Ave. North, Princeton, Minnesota, including the General Conditions attached thereto, no warranties are extended or made.

WEST CENTRAL ENVIRONMENTAL CONSULTANTS

Asbestos Inspection Report for **Princeton Gas Station**
Located at: **903 Ninth Avenue North**
Princeton, MN 55371

Conducted On: **7/16/2013**
Conducted By: **Mike Altermatt**

Key (% of Asbestos)

CH	=	Chrysotile	None Detected	=	Materials that have been tested and have been found to not contain asbestos.
AM	=	Amosite	NSM	=	Nonsuspect material
CR	=	Crocidolite			
ACT	=	Actinolite			
TR	=	Tremolite			
ANT	=	Anthophyllite			
Assumed	=	Suspect materials that have not been tested			

IEA Event No.	IEA Material Type		Location	Estimated Amount Total	% of Asbestos
1	S0A	Wood Floor Felt / Vapor Barrier	FIRST FLOOR	800 SF	NONE DETECTED
Comments:				Sample # 071613MA-01	
2	K2A	12" x 12" Vinyl Floor Tile & Mastic White w/Black Streaks	FIRST FLOOR	40 SF	3 CH (TILE ONLY)
Comments:				Sample # 071613MA-02	
3	K1A	Sheet Vinyl Flooring & Adhesive Gray	FIRST FLOOR	10 SF	NONE DETECTED
Comments:				Sample # 071613MA-03	
4	K1B	Sheet Vinyl Flooring & Adhesive Red	FIRST FLOOR	250 SF	NONE DETECTED
Comments:				Sample # 071613MA-04	

IEA Event No.	IEA Material Type		Location	Estimated Amount Total	% of Asbestos
5	K2B	12" x 12" Vinyl Floor Tile & Mastic Red Squares Pattern	FIRST FLOOR	100 SF	NONE DETECTED
Comments:				Sample # 071613MA-05	
6	K2C	12" x 12" Vinyl Floor Tile & Mastic White Floral Pattern	FIRST FLOOR	50 SF	NONE DETECTED
Comments:				Sample # 071613MA-06	
7	K0A	9" x 9" Vinyl Floor Tile & Mastic Brown w/White Streaks	FIRST FLOOR	75 SF	10 CH (TILE ONLY)
Comments:				Sample # 071613MA-07	
8	J1A	Cementitious Panels Wall Panels	FIRST FLOOR	400 SF	10 CH
Comments:				Sample # 071613MA-08	
9	N0A	Drywall/Joint Compound	FIRST FLOOR	500 SF	<1 CH
Comments:				Sample # 071613MA-09	
10	I1A	1' x 1' Acoustical Ceiling Tile Plain White, Nailed	FIRST FLOOR	15 SF	NONE DETECTED
Comments:				Sample # 071613MA-10	
11	I4A	Acoustical Ceiling Tile 3' x 3' Pressed Board	FIRST FLOOR	9 SF	NONE DETECTED
Comments:				Sample # 071613MA-11	
12	X0G	Miscellaneous Material Fiberglass Batt Wall Insulation	FIRST FLOOR	200 SF	NONE DETECTED
Comments:				Sample # 071613MA-12	
13	X0H	Miscellaneous Material Fiberglass Batt Ceiling Insulation	FIRST FLOOR	800 SF	NONE DETECTED
Comments:				Sample # 071613MA-13	

IEA Event No.	IEA Material Type		Location	Estimated Amount Total	% of Asbestos
14	T1A	Electrical Wire Insulation	FIRST FLOOR	20 LF	NONE DETECTED
Comments:				Sample # 071613MA-14	
15	X0B	Miscellaneous Material Wall Tar	EXTERIOR	2 SF	5 CH
Comments:				Sample # 071613MA-16	
16	X0C	Miscellaneous Material Window Caulk	EXTERIOR	10 SF	3 CH
Comments:				Sample # 071613MA-17	
17	X0D	Miscellaneous Material Door Caulk	EXTERIOR	2 SF	NONE DETECTED
Comments:				Sample # 071613MA-18	
18	X0F	Miscellaneous Material Window Glazing	EXTERIOR	2 SF	NONE DETECTED
Comments:				Sample # 071613MA-19	
19	X0E	Miscellaneous Material Stucco	EXTERIOR	1500 SF	NONE DETECTED
Comments:				Sample # 071613MA-20,21,22,23,24	
20	X0A	Miscellaneous Material Roof Tar	ROOF	1000 SF	NONE DETECTED
Comments:				Sample # 071613MA-15	

SECTION II

Asbestos Sample Locations Drawing & Photos

PROJECT # _____ DATE _____

PROJECT NAME _____

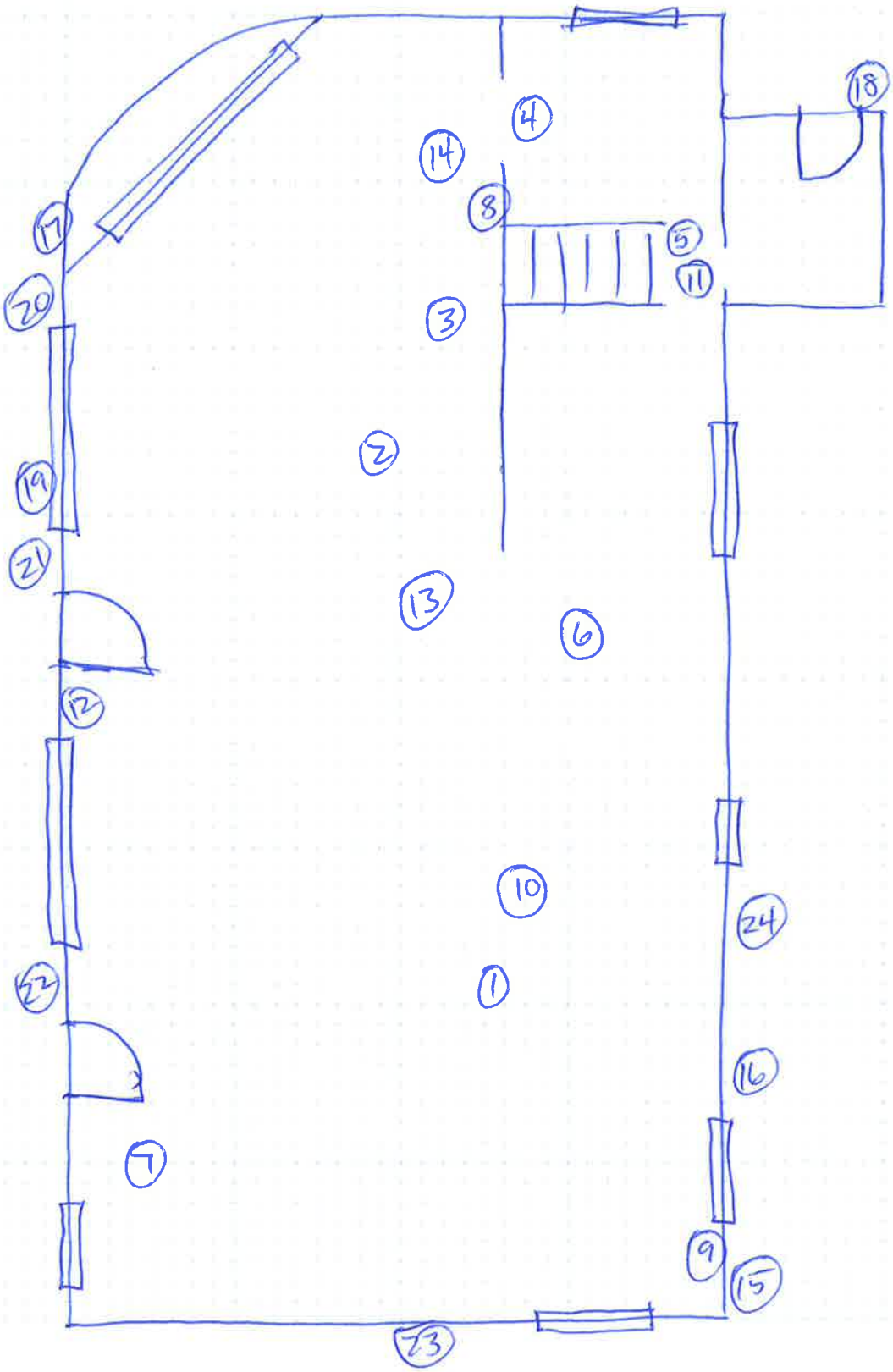
PROJECT DESCRIPTION _____

SITE LOCATION _____

STAFF NAME _____ SHEET _____ OF _____

N

North Run River Drive



I1A Plain white

I4A 3' x 3' ceiling panel

J1A transite wall panels

K0A Brown with white streaks

K1A Gray sheet vinyl

K1B Red sheet vinyl

K2A White with black streaks

K2B red squares pattern

K2C white floral design

N0A Drywall

SOA Wood Floor Vapor Barrier

T1A wiring

X0C Window caulk

X0D Door caulk

X0A Roof Tar

X0B Wall Tar

X0E Stucco

X0F Window glazing

X0G fiberglass wall insulation

X0H fiberglass ceiling insulation

SECTION III

Asbestos Laboratory Report

EMSL Analytical, Inc.
14375 23rd Avenue North, Minneapolis, Mn 55447
Phone/Fax: (763) 449-4922 / (763) 449-4924
http://www.emsl.com minneapolislab@emsl.com

EMSL Order:	351304288
CustomerID:	IFEA50
CustomerPO:	
ProjectID:	

Attn: **Denice Kuchta**
Inst. For Environmental Assessment
9201 West Broadway
Suite 600
Brooklyn Park, MN 55445

Phone:	(763) 315-7900
Fax:	(763) 315-7920
Received:	07/16/13 4:00 PM
Analysis Date:	7/18/2013
Collected:	7/16/2013

Project: **201310602, 903 9th Ave North**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
071613MA-01 *351304288-0001*	Main Floor - Wood Floor Vapor Barrier, S0A	Tan/Black Fibrous Homogeneous	45%	Cellulose	55%	Non-fibrous (other)	**None Detected**
071613MA-02-Floor Tile *351304288-0002*	Main Floor - 12" Floor tile and mastic, K2A	White Non-Fibrous Heterogeneous			97%	Non-fibrous (other)	**3% Chrysotile**
071613MA-02-Mastic *351304288-0002A*	Main Floor - 12" Floor tile and mastic, K2A	Black Non-Fibrous Heterogeneous			100%	Non-fibrous (other)	**None Detected**
071613MA-03-Linoleum *351304288-0003*	Main Floor - Gray sheet vinyl, K1A	Red/Black Fibrous Heterogeneous	35%	Cellulose	65%	Non-fibrous (other)	**None Detected**
071613MA-03-Mastic *351304288-0003A*	Main Floor - Gray sheet vinyl, K1A	Brown Non-Fibrous Heterogeneous			100%	Non-fibrous (other)	**None Detected**
071613MA-04-Linoleum *351304288-0004*	Main Floor - Red sheet vinyl, K1B	Tan/Red/Black Fibrous Heterogeneous	35%	Cellulose	65%	Non-fibrous (other)	**None Detected**
071613MA-04-Mastic *351304288-0004A*	Main Floor - Red sheet vinyl, K1B	Brown Non-Fibrous Heterogeneous			100%	Non-fibrous (other)	**None Detected**

Analyst(s)
Lynn Scott (40)

Rachel Travis, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 07/18/2013 09:26:45

EMSL Analytical, Inc.
14375 23rd Avenue North, Minneapolis, Mn 55447
Phone/Fax: (763) 449-4922 / (763) 449-4924
http://www.emsl.com minneapolislab@emsl.com

EMSL Order:	351304288
CustomerID:	IFEA50
CustomerPO:	
ProjectID:	

Attn: **Denice Kuchta**
Inst. For Environmental Assessment
9201 West Broadway
Suite 600
Brooklyn Park, MN 55445

Phone:	(763) 315-7900
Fax:	(763) 315-7920
Received:	07/16/13 4:00 PM
Analysis Date:	7/18/2013
Collected:	7/16/2013

Project: **201310602, 903 9th Ave North**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
071613MA-05-Linoleum *351304288-0005*	Main Floor - 12" Floor tile and mastic, K2B	Red Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-05-Mastic *351304288-0005A*	Main Floor - 12" Floor tile and mastic, K2B	Clear Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-06-Linoleum *351304288-0006*	Main Floor - 12" Floor tile and mastic, K2C	Brown/White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-06-Mastic *351304288-0006A*	Main Floor - 12" Floor tile and mastic, K2C	Clear Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-07-Floor Tile *351304288-0007*	Main Floor - 9" Floor tile and mastic, K0A	Beige Non-Fibrous Heterogeneous		90% Non-fibrous (other)	**10% Chrysotile**
071613MA-07-Mastic *351304288-0007A*	Main Floor - 9" Floor tile and mastic, K0A	Black Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-08 *351304288-0008*	Main Floor - transite wall panel, J1A	Gray Fibrous Homogeneous		90% Non-fibrous (other)	**10% Chrysotile**

Analyst(s)
Lynn Scott (40)

Rachel Travis, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 07/18/2013 09:26:45

EMSL Analytical, Inc.
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Attn: **Denice Kuchta**
Inst. For Environmental Assessment
9201 West Broadway
Suite 600
Brooklyn Park, MN 55445

Phone:	(763) 315-7900
Fax:	(763) 315-7920
Received:	07/16/13 4:00 PM
Analysis Date:	7/18/2013
Collected:	7/16/2013

Project: **201310602, 903 9th Ave North**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
071613MA-09 *351304288-0009*	Main Floor - Drywall and taping compound, N0A	Tan/White/Cream Fibrous Heterogeneous	10%	Cellulose	<1% 90%	Mica Non-fibrous (other)	**<1% Chrysotile**
071613MA-10 *351304288-0010*	Main Floor - 1'x1' ceiling tile, I1A	Tan/White Fibrous Homogeneous	95%	Cellulose	5%	Non-fibrous (other)	**None Detected**
071613MA-11 *351304288-0011*	Main Floor - 3'x3' ceiling tile, I4A	Tan/White Fibrous Homogeneous	95%	Cellulose	5%	Non-fibrous (other)	**None Detected**
071613MA-12-Insulation *351304288-0012*	Main Floor - Fiberglass wall insulation, X0G	Pink Fibrous Heterogeneous	95%	Min. Wool	5%	Non-fibrous (other)	**None Detected**
071613MA-12-Wrap *351304288-0012A*	Main Floor - Fiberglass wall insulation, X0G	Tan/Black Fibrous Heterogeneous	10%	Cellulose	90%	Non-fibrous (other)	**None Detected**
071613MA-13-Insulation *351304288-0013*	Main Floor - Fiberglass ceiling insulation, X0H	Tan Fibrous Heterogeneous	95%	Cellulose	5%	Non-fibrous (other)	**None Detected**
071613MA-13-Wrap *351304288-0013A*	Main Floor - Fiberglass ceiling insulation, X0H	Black Fibrous Heterogeneous	10%	Cellulose	90%	Non-fibrous (other)	**None Detected**
071613MA-14 *351304288-0014*	Main Floor - Wiring coating, T1A	Black Fibrous Homogeneous	45%	Cellulose	55%	Non-fibrous (other)	**None Detected**

Analyst(s)
Lynn Scott (40)

Rachel Travis, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 07/18/2013 09:26:45

EMSL Analytical, Inc.
14375 23rd Avenue North, Minneapolis, Mn 55447
Phone/Fax: (763) 449-4922 / (763) 449-4924
http://www.emsl.com minneapolislab@emsl.com

EMSL Order:	351304288
CustomerID:	IFEA50
CustomerPO:	
ProjectID:	

Attn: **Denice Kuchta**
Inst. For Environmental Assessment
9201 West Broadway
Suite 600
Brooklyn Park, MN 55445

Phone:	(763) 315-7900
Fax:	(763) 315-7920
Received:	07/16/13 4:00 PM
Analysis Date:	7/18/2013
Collected:	7/16/2013

Project: **201310602, 903 9th Ave North**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
071613MA-15 *351304288-0015*	Roof - Roof tar, X0A	Black Fibrous Homogeneous	45%	Cellulose	55%	Non-fibrous (other)	**None Detected**
071613MA-16-Tar Layer *351304288-0016*	Exterior - Wall tar, X0B	Black Non-Fibrous Heterogeneous			88%	Non-fibrous (other)	**12% Chrysotile**
071613MA-16-Fibrous Layer *351304288-0016A*	Exterior - Wall tar, X0B	Black Fibrous Heterogeneous	40%	Cellulose	55%	Non-fibrous (other)	**5% Chrysotile**
071613MA-17-Hard Layer *351304288-0017*	Exterior - Window caulk, X0C	White Non-Fibrous Heterogeneous			97%	Non-fibrous (other)	**3% Chrysotile**
071613MA-17-Soft Layer *351304288-0017A*	Exterior - Window caulk, X0C	White Non-Fibrous Heterogeneous			100%	Non-fibrous (other)	**None Detected**
071613MA-18-Hard Layer *351304288-0018*	Exterior - Door caulk, X0D	White Non-Fibrous Heterogeneous			100%	Non-fibrous (other)	**None Detected**
071613MA-18-Soft Layer *351304288-0018A*	Exterior - Door caulk, X0D	White Non-Fibrous Heterogeneous			100%	Non-fibrous (other)	**None Detected**

Analyst(s)
Lynn Scott (40)

Rachel Travis, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 07/18/2013 09:26:45

EMSL Analytical, Inc.
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Phone/Fax: (763) 449-4922 / (763) 449-4924
http://www.emsl.com minneapolislab@emsl.com

EMSL Order:	351304288
CustomerID:	IFEA50
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ProjectID:	

Attn: **Denice Kuchta**
Inst. For Environmental Assessment
9201 West Broadway
Suite 600
Brooklyn Park, MN 55445

Phone:	(763) 315-7900
Fax:	(763) 315-7920
Received:	07/16/13 4:00 PM
Analysis Date:	7/18/2013
Collected:	7/16/2013

Project: **201310602, 903 9th Ave North**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
071613MA-19 *351304288-0019*	Exterior - Window glazing, X0F	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-20-White Layer *351304288-0020*	Exterior - Stucco, X0E	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-20-Gray Layer *351304288-0020A*	Exterior - Stucco, X0E	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-21-White Layer *351304288-0021*	Exterior - Stucco, X0E	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-21-Gray Layer *351304288-0021A*	Exterior - Stucco, X0E	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-22-White Layer *351304288-0022*	Exterior - Stucco, X0E	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-22-Gray Layer *351304288-0022A*	Exterior - Stucco, X0E	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**

Analyst(s)
Lynn Scott (40)

Rachel Travis, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 07/18/2013 09:26:45

EMSL Analytical, Inc.
14375 23rd Avenue North, Minneapolis, Mn 55447
Phone/Fax: (763) 449-4922 / (763) 449-4924
http://www.emsl.com minneapolislab@emsl.com

EMSL Order:	351304288
CustomerID:	IFEA50
CustomerPO:	
ProjectID:	

Attn: **Denice Kuchta**
Inst. For Environmental Assessment
9201 West Broadway
Suite 600
Brooklyn Park, MN 55445

Phone:	(763) 315-7900
Fax:	(763) 315-7920
Received:	07/16/13 4:00 PM
Analysis Date:	7/18/2013
Collected:	7/16/2013

Project: **201310602, 903 9th Ave North**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
071613MA-23-White Layer *351304288-0023*	Exterior - Stucco, X0E	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-23-Gray Layer *351304288-0023A*	Exterior - Stucco, X0E	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-24-White Layer *351304288-0024*	Exterior - Stucco, X0E	White Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**
071613MA-24-Gray Layer *351304288-0024A*	Exterior - Stucco, X0E	Gray Non-Fibrous Heterogeneous		100% Non-fibrous (other)	**None Detected**

Analyst(s)
Lynn Scott (40)

Rachel Travis, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn NVLAP Lab Code 200019-0

Initial report from 07/18/2013 09:26:45

THIS IS THE LAST PAGE OF THE REPORT.

9201 West Broadway North, Suite 600
Brooklyn Park, MN 55445
(763) 315-7900
1-800-233-9513

4288

CHAIN OF CUSTODY № 6752

Client # _____ Project # 201310602

Client West Central Environmental Consultants

Address _____

Building Name 903 9th Ave North

Project Name Princeton Gas Station

Contact Person _____ Contact Person Phone _____

Other Information _____

Shaded Areas are for Laboratory Use Only!

Verbal results to Denise Kuchta | Phone, Fax No. or E-Mail | TAT (circle) 6 hr 1d 2d 3d 4d Specify

Verbal results relayed to | Verbal results relayed by | Date | Time

Analysis location: ○ On Site ○ Lab ○ Regional Office ☒ Other EMSL

Sample #	Work Area or Phase #	Comments / Location	Sample type or Material code	Volume	Matrix type: Air	Bulk	Dust	Analysis requested: PCM	PLM	TEM	Other	Filter type: MCE	.8 um	.45 um
071613MA-01	Main Floor	- Wood Floor Vapor Barrier	SOA		○	☒	○	○	☒	○		○	○	○
-02		- 12" Floor tile w/ mastic	K2A		○	○	○	○	○	○		○	○	○
-03		- Gray sheet vinyl	K1A		○	○	○	○	○	○		○	○	○
-04		- Red sheet vinyl	K1B		○	○	○	○	○	○		○	○	○
-05		- 12" Floor tile w/ mastic	K2B		○	○	○	○	○	○		○	○	○
-06		- 12" Floor tile w/ mastic	K2C		○	○	○	○	○	○		○	○	○
-07		- 9" Floor tile w/ mastic	K0A		○	○	○	○	○	○		○	○	○
-08		- transite wall panel	J1A		○	○	○	○	○	○		○	○	○
-09		- Drywall w/ taping compound	N0A		○	○	○	○	○	○		○	○	○
-10		- 1'x1' ceiling tile	I1A		○	○	○	○	○	○		○	○	○
-11		- 3' x 3' ceiling tile	I4A		○	○	○	○	○	○		○	○	○
-12		- Fiberglass wall insulation	X0G		○	○	○	○	○	○		○	○	○
-13		- Fiberglass ceiling insulation	X0H		○	○	○	○	○	○		○	○	○
-14		- Wiring coating	T1A		○	○	○	○	○	○		○	○	○
-15	Roof	- Roof tar	X0A		○	☒	○	○	☒	○		○	○	○

The MN Department of Health Alternative Indoor Air Standard for this project is: _____ F/CC. Batch Number: Samples Acceptable? ○ Yes ○ No

Sampled by	Date	Time	Delivered by	Date	Time	Received by lab	Date	Time	Entered by	Date	Time
Mike Altermatt	7/16/13		Mike Altermatt	7/16/13		JPUER	7/16/13	4:00			
Received by	**Date**	**Time**	**Delivered by**	**Date**	**Time**	**Analysis by**	**Date**	**Time**	**Delivered by**	**Date**	**Time**

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CHAIN OF CUSTODY № 6751

Client # _____ Project # 201310602
Client West Central Environmental Consultants
Address _____

Building Name 903 9th Ave North
Project Name Princeton Gas Station
Contact Person _____
Contact Person Phone _____
Other Information _____

Shaded Areas are for Laboratory Use Only!

Verbal results to Denice Kochta
Phone, Fax No. or E-Mail _____
TAT (circle) 6 hr 1d 2d 3d 4d Specify
Verbal results relayed to _____
Verbal results relayed by _____
Date _____ Time _____

Analysis location: ○ On Site ○ Lab ○ Regional Office ☒ Other EMSL

Sample #	Work Area or Phase #	Comments / Location	Sample type or Material code	Volume	Matrix type: Air	Bulk	Dust	Analysis requested: PCM	PLM	TEM	Other	Filter type: MCE	.8 um	.45 um
071613MA-16	Exterior	- Wall tar	XOB		○	X	○	○	X	○		○	○	○
-17		- window caulk	XOC		○	○	○	○	○	○		○	○	○
-18		- door caulk	XOD		○	○	○	○	○	○		○	○	○
-19		- Window glazing	XOF		○	○	○	○	○	○		○	○	○
-20		- stucco	XOE	stop at 1st positive	○	○	○	○	○	○		○	○	○
-21		- stucco	XOE		○	○	○	○	○	○		○	○	○
-22		- stucco	XOE		○	○	○	○	○	○		○	○	○
-23		- stucco	XOE		○	○	○	○	○	○		○	○	○
-24		- stucco	XOE		○	X	○	○	X	○		○	○	○
					○	○	○	○	○	○		○	○	○
					○	○	○	○	○	○		○	○	○
					○	○	○	○	○	○		○	○	○
					○	○	○	○	○	○		○	○	○
					○	○	○	○	○	○		○	○	○
					○	○	○	○	○	○		○	○	○

The MN Department of Health Alternative Indoor Air Standard for this project is: _____ F/CC. Batch Number: _____ Samples Acceptable? ○ Yes ○ No

Sampled by	Date	Time	Delivered by	Date	Time	Received by lab	Date	Time	Entered by	Date	Time
Mike Altermatt	7/16/13		Mike Altermatt	7/16/13		JPOER M	7/16/13	4:00			
Received by	**Date**	**Time**	**Delivered by**	**Date**	**Time**	**Analysis by**	**Date**	**Time**	**Delivered by**	**Date**	**Time**

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4288

CHAIN OF CUSTODY

№ 6752

351304288

Client # _____ Project # 201310602 Building Name 903 9th Ave North

Client West Central Environmental Consultants Project Name Princeton Gas Station

Address _____ Contact Person _____ Contact Person Phone _____

Other Information _____

Shaded Areas are for Laboratory Use Only!

Verbal results to Denise Kuehle | Phone, Fax No. or E-Mail | TAT (circle) 6 hr 1d 2d 3d 4d Specify

Verbal results relayed to | Verbal results relayed by | Date | Time

Analysis location: ○ On Site ○ Lab ○ Regional Office ☒ Other EMSL

Sample #	Work Area or Phase #	Comments / Location	Sample type or Material code	Volume	Matrix type: Air	Bulk	Dust	Analysis requested: PCM	PLM	TEM	Other	Filter type: MCE	.8 um	.45 um
071613MA-01	Main Floor	– Wood Floor Vapor Barrier	SOA		○	X	○	○	X	○		○	○	○
-02		– 12" Floor tile w/ mastic	K2A		○	○	○	○	○	○		○	○	○
-03		– Gray sheet vinyl	K1A		○	○	○	○	○	○		○	○	○
-04		– Red sheet vinyl	K1B		○	○	○	○	○	○		○	○	○
-05		– 12" Floor tile w/ mastic	K2B		○	○	○	○	○	○		○	○	○
-06		– 12" Floor tile w/ mastic	K2C		○	○	○	○	○	○		○	○	○
-07		– 9" Floor tile w/ mastic	KOA		○	○	○	○	○	○		○	○	○
-08		– transite wall panel	J1A		○	○	○	○	○	○		○	○	○
-09		– Drywall w/ taping compound	NOA		○	○	○	○	○	○		○	○	○
-10		– 1'x1' ceiling tile	I1A		○	○	○	○	○	○		○	○	○
-11		– 3' x 3' ceiling tile	I4A		○	○	○	○	○	○		○	○	○
-12		– Fiberglass wall insulation	XOG		○	○	○	○	○	○		○	○	○
-13		– Fiberglass ceiling insulation	XOH		○	○	○	○	○	○		○	○	○
-14		– Wiring coating	T1A		○	○	○	○	○	○		○	○	○
-15	Roof	– Roof tar	XOA		○	X	○	○	X	○		○	○	○

The MN Department of Health Alternative Indoor Air Standard for this project is: _____ F/CC. Batch Number: Samples Acceptable? ○ Yes ○ No

Sampled by	Date	Time	Delivered by	Date	Time	Received by lab	Date	Time	Entered by	Date	Time
Mike Aftermatt	7/16/13		Mike Aftermatt	7/16/13		JPUER	7/16/13	4:00			
Received by	**Date**	**Time**	**Delivered by**	**Date**	**Time**	**Analysis by**	**Date**	**Time**	**Delivered by**	**Date**	**Time**

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4288

CHAIN OF CUSTODY

№ 6751

3513042288

Client # _____ Project # 20131060Z

Client West Central Environmental Consultants

Address _____

Building Name 903 9th Ave North

Project Name Princeton Gas Station

Contact Person _____ Contact Person Phone _____

Other Information _____

Shaded Areas are for Laboratory Use Only!

Verbal results to Daniel Kuchta | Phone, Fax No. or E-Mail | TAT (circle) 6 hr 1d 2d 3d 4d Specify

Verbal results relayed to | Verbal results relayed by | Date | Time

Analysis location: ○ On Site ○ Lab ○ Regional Office ⊗ Other EMSL

Sample #	Work Area or Phase #	Comments / Location	Sample type or Material code	Volume	Matrix type: Air	Bulk	Dust	Analysis requested: PCM	PLM	TEM	Other	Filter type: MCE	.8 um	.45 um
071613MA-16	Exterior	- Wall tar	XOB		○	X	○	○	X	○		○	○	○
-17		- window caulk	XOC		○	○	○	○	○	○		○	○	○
-18		- door caulk	XOD		○	○	○	○	○	○		○	○	○
-19		- window glazing	XOF		○	○	○	○	○	○		○	○	○
-20		- stucco	XOE	stop at 1st positive	○	○	○	○	○	○		○	○	○
-21		- stucco	XOE		○	○	○	○	○	○		○	○	○
-22		- stucco	XOE		○	○	○	○	○	○		○	○	○
-23		- stucco	XOE		○	○	○	○	○	○		○	○	○
-24		- stucco	XOE		○	X	○	○	X	○		○	○	○
					○	○	○	○	○	○		○	○	○
					○	○	○	○	○	○		○	○	○
					○	○	○	○	○	○		○	○	○
					○	○	○	○	○	○		○	○	○
					○	○	○	○	○	○		○	○	○
					○	○	○	○	○	○		○	○	○

The MN Department of Health Alternative Indoor Air Standard for this project is: _____ F/CC. | Batch Number: | Samples Acceptable? ○ Yes ○ No

Sampled by	Date	Time	Delivered by	Date	Time	Received by lab	Date	Time	Entered by	Date	Time
Mike Aldermatt	7/16/13		Mike Aldermatt	7/16/13		JPOER	7/16/13	4:00			
Received by	**Date**	**Time**	**Delivered by**	**Date**	**Time**	**Analysis by**	**Date**	**Time**	**Delivered by**	**Date**	**Time**

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SECTION IV

Lead-Based Paint Inspection Summary

LEAD-BASED PAINT INSPECTION SUMMARY

Inspection for: West Central Environmental Consultants

Performed at: 903 Ninth Avenue North

Performed by: Mike Altermatt, Institute for Environmental Assessment

Inspection Dates: July 16, 2013

Instrument Used: Thermo Fisher Scientific Niton Corporation X-Ray Fluorescence (XRF) Analyzer

Serial Number: 16071

Standard: 1.0 mg/cm^2

A total of fifteen (15) surfaces were analyzed for lead content utilizing the XRF Analyzer. All samples were given a result of positive or negative for lead (above or below 1.0 mg/cm^2), the standard established by the Minnesota Department of Health (MDH) and HUD for lead in paint. Results are located in Section V.

Positive results include:

- Interior Door Casing – White
- Interior / Exterior Windows – White & Brown

For purposes of renovation, the renovation contractor must be notified of the lead content in paint. It is the contractor's responsibility to comply with OSHA's Lead in Construction "Interim Final Rule" 29 CFR 1926.62. OSHA does not acknowledge the standards established by MDH and HUD and regulates any amount of lead in paint.

Calibration check tests were conducted throughout the inspection using standards with a known lead content of 0.0 mg/cm^2 to 3.5 mg/cm^2.

The Minnesota Pollution Control Agency (MPCA) requires that all loose and flaking lead-based paint (>1.0 mg/cm^2) to be stabilized prior to demolition. Paint on all tested building materials was noted to be in poor/deteriorated condition at the time of the inspection.

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SECTION V

Lead-Based Paint Inspection Report

West Central Environmental Consultants
Princeton Gas Station

No	Time	Duration	Sequence	Component	Substrate	Side	Condition	Color	Room	Res	EScale1	EscleCT	Results	D I	PbC	PbC Error
1	7/16/2013 9:59	62.09	Final							436.71	4.57	2.31			7.28	0
2	7/16/2013 10:00	20	Final	CALIBRATE				RED					Positive	1.07	1	0.1
3	7/16/2013 10:00	9.7	Final	CALIBRATE				RED					Positive	1.1	1.1	0.1
4	7/16/2013 10:00	4.85	Final	CALIBRATE				RED					Positive	1.17	1.2	0.2
5	7/16/2013 10:01	1.32	Final	DOOR	WOOD	A	POOR	WHITE	MAIN				Negative	2.64	0.11	0.19
6	7/16/2013 10:01	11.89	Final	DOOR CASING	WOOD	A	POOR	WHITE	MAIN				Positive	4.52	1.2	0.2
7	7/16/2013 10:02	4.38	Final	WINDOW CASING	WOOD	A	POOR	WHITE	MAIN				Positive	2.94	1.3	0.3
8	7/16/2013 10:02	1.32	Final	WINDOW SASH	WOOD	A	POOR	WHITE	MAIN				Positive	3.83	4.1	1.9
9	7/16/2013 10:02	1.32	Final	WINDOW SILL	WOOD	A	POOR	WHITE	MAIN				Positive	4.27	2.7	1.5
10	7/16/2013 10:03	2.19	Final	WALL	TRANSITE	A	POOR	PINK	MAIN				Negative	1.42	0.08	0.08
11	7/16/2013 10:03	2.2	Final	WALL	DRYWALL	C	POOR	YELLOW	MAIN				Negative	1.67	0.01	0.03
12	7/16/2013 10:04	1.32	Final	CEILING	WOOD	C	POOR	WHITE	BACK ENTRY				Negative	1	0.01	0.03
13	7/16/2013 10:05	1.32	Final	WINDOW CASING	WOOD	D	POOR	BROWN	MAIN				Negative	1.72	0.02	0.07
14	7/16/2013 10:05	1.32	Final	WINDOW SASH	WOOD	D	POOR	BROWN	MAIN				Positive	6.85	5.3	2.8
15	7/16/2013 10:05	1.76	Final	WINDOW SILL	WOOD	D	POOR	BROWN	MAIN				Negative	5.44	0.4	0.5
16	7/16/2013 10:06	6.18	Final	WALL	STUCCO	A	POOR	WHITE	EXTERIOR				Negative	1.69	0.02	0.02
17	7/16/2013 10:07	20	Final	WALL	STUCCO	B	POOR	WHITE	EXTERIOR				Negative	1.37	0.04	0.02
18	7/16/2013 10:08	0.44	Final	WINDOW SASH	WOOD	A	POOR	WHITE	EXTERIOR				Positive	2.13	5.6	4.5
19	7/16/2013 10:10	12.32	Final	CALIBRATE				RED					Positive	1.08	1.1	0.1
20	7/16/2013 10:10	9.26	Final	CALIBRATE				RED					Positive	1.1	1.1	0.1
21	7/16/2013 10:10	9.26	Final	CALIBRATE				RED					Positive	1.09	1.1	0.1

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SECTION VI

Asbestos and Lead Inspector's Licenses

Lead Risk Assessor Certification/Accreditation

Director, Env. Health Div.

MDH **LEAD Risk Assessor**

Licensed by:
State of Minnesota
Department of Health

License No. LR3199
Expires 12/04/2013

Michael T Altermatt
758 Liberty Heights Dr
Chaska, MN 55318

Inspector

I have completed an approved training course and all appropriate refresher courses and am licensed as a Lead Risk Assessor by the Minnesota Department of Health.

Signature

July 16, 2013
Date of Inspection

Michael Altermatt
Print Name

LR3199
State Certification/Accreditation Number

Asbestos Inspector State Certification/Accreditation

MDH ASBESTOS INSPECTOR

Certified by:
State of Minnesota
Department of Health

Expires: 08/22/2013

Michael T Altermatt
758 Liberty Heights Dr
Chaska, MN 55318

Director, Env. Health Div. No AI9977 Issued: 08/27/2012

Inspector

I have completed an EPA-approved training course and all appropriate refresher courses and am licensed as an Asbestos Inspector by the Minnesota Department of Health.

Signature	July 16, 2013 Date of Inspection
Michael Altermatt Print Name	AI9977 State Certification/Accreditation Number