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THIRD QUARTER 2014 MONITORING REPORT

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Dowagiac, Michigan

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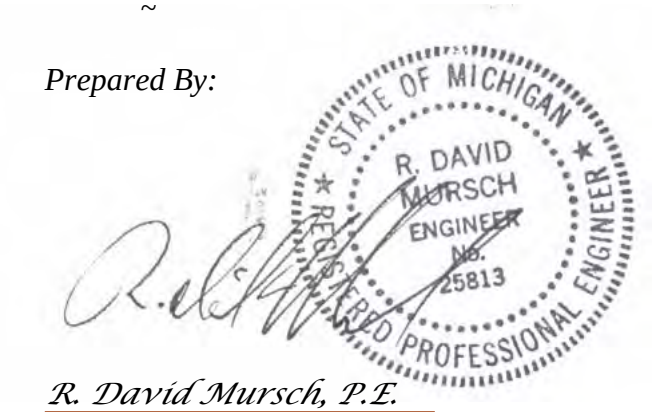

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1.0 INTRODUCTION

An industrial property at 415 Prairie Ronde Street in Dowagiac, Michigan was acquired by Prairie Ronde Realty Company (PRR) from the Sundstrand Corporation (UTC/Sundstrand) in 1995. The property was formerly used for manufacturing operations such as casting and re-drawing copper tubes. The shallow soil and groundwater beneath this plant were impacted by volatile organic compounds (VOCs), primarily trichloroethene (TCE) and 1,1,1-trichloroethane (TCA) prior to acquisition of the property by PRR. The contamination was discovered in 1983, and the impacted soil and groundwater have been undergoing active remediation since 1984.

The plant is underlain by glacial outwash deposits. In general, there is an upper layer of medium to fine sand grading to sandy gravel. This upper layer is typically 50 to 60 feet thick within the main plant area, and groundwater in this layer occurs under water table conditions. Underlying this upper layer is a variable but persistent aquitard layer consisting of inter-bedded clay, fine silty sand, clayey silt and clayey sand, which has sometimes been referred to as the "clay layer". The aquitard is typically several feet thick but in some areas it is tens of feet thick. The soil below the aquitard consists of inter-bedded sand and gravel that together form a semi-confined aquifer, and there is an upward hydraulic gradient across the aquitard. There is VOC impact to the groundwater below the aquitard layer, but the area of impact is limited to the primary source area in the plant.

In 1984 a groundwater remediation system consisting of twelve purge wells was installed and put into operation under the terms of a Consent Judgment between UTC/Sundstrand (formerly Sundstrand Heat Transfer, Inc.) and the Michigan Department Environmental Quality (MDEQ). In 2004, MDEQ requested that the US Environmental Protection Agency (EPA) assume the regulatory lead for this site and PRR subsequently entered into a voluntary Consent Agreement with EPA for completion of the site's environmental assessment and remediation.

Beginning in 1994, the plant voluntarily installed air sparging and soil vapor extraction (SVE) systems to expedite the remediation. During the last quarter of 2008, these systems were determined to have accomplished their design objectives and were shut down after notice to the EPA.

In 2008 PRR initiated a pilot test of enhanced reductive dechlorination technology, which involved injecting a solution of Anaerobic BioChem plus zero-valent iron (ABC+) into the groundwater at the Oil and Solvent Room (OSR) inside the plant. The pilot testing has shown that ABC+ is effective at degrading chlorinated solvents at this site.

During 2012 testing showed TCE levels in the PRR building's indoor air that exceeded USEPA Regional Screening Levels (RSLs). PRR subsequently installed a sub-slab depressurization system (SSDPS) to reduce TCE levels in the sub-slab soil vapors and control migration of vapors into the building's occupied indoor air space.

The 1984 Consent Judgment requires periodic monitoring of the site's groundwater by sampling designated monitoring wells for analysis of VOCs. The monitoring program has been modified from time to time based on evolving site conditions and newly-installed sampling locations. The monitoring results for the third quarter of 2014 are presented in this report.

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2.0 MONITORING SCOPE OF WORK AND PROCEDURES

The current monitoring program for the PRR site is outlined in the *Final Corrective Action Monitoring Plan* dated April 10, 2013 (the CAMP). The specific monitoring activities completed and reported for this quarter included:

- Sampling groundwater-surface water interface (GSI) compliance monitoring wells for VOC analysis.
- Monitoring SSDPS emissions and sub-slab vacuum.
- Sampling indoor air and sub-slab soil vapors for VOC analysis.
- Documentation of purge well operation and maintenance.

The following sections describe the work procedures for this quarter's monitoring. Figure 1 shows a plan of the PRR site including the sampling locations.

2.1 GSI Compliance Groundwater Sampling

Groundwater samples were obtained from nineteen of the twenty GSI compliance monitoring wells designated in the CAMP. Well 83-17A was not sampled because of heavy overgrowth of poison ivy around the well. The analytical data obtained from the GSI wells are shown on Table 1 and Figures 2 through 4.

In addition to the regular GSI well sampling, PRR obtained a sample from monitoring well 96-203A, which is located in an area where ABC+ injection was performed last year. The data will be used to further evaluate the effectiveness of the injection at this location.

The monitoring wells were generally purged using low-flow methods as described in *Low Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, by Puls and Barcelona, EPA Ground Water issue September 1996. Most of the wells were purged using a peristaltic pump and ¼-inch polyethylene tubing. The tubing was set to the approximate midpoint of the screen in each well. The wells were purged by pumping through the tubing at a low flow rate (less than 500 milliliters per minute) with continuous monitoring of water quality parameters, including pH, conductivity, turbidity, dissolved oxygen and temperature. The flow rate was adjusted as necessary to minimize drawdown of the water level in the well; this ensures that the pumped water is being drawn through the well screen and is not standing water from inside the well. When the monitored water quality parameters stabilized, a groundwater sample was collected directly from the dedicated pump discharge tubing.

The samples for VOC analysis were collected in 40-milliliter (ml) septum-lid vials with laboratory-added hydrochloric acid as a preservative, packed in coolers with ice and delivered to Trimatrix Laboratories, Inc. in Grand Rapids to be analyzed for VOCs using EPA Method 8260. The field sampling data forms, chain-of-custody forms and laboratory analytical reports are included in Acrobat (*.pdf) format on the appended compact disc (CD).

For quality assurance/quality control (QA/QC) purposes, a laboratory-prepared trip blank accompanied each of the VOC sample sets. The data for the trip blanks are included in the laboratory reports. The laboratory's internal QA/QC program includes analyses of laboratory-prepared matrix and surrogate spikes and replicates; these data are also included in the laboratory reports.

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2.2 Sub-Slab Depressurization System Monitoring

The plant began operation of a SSDPS in the summer of 2012 and has been monitoring sub-slab vacuum and air emissions related to this system. The SSDPS is designed to reduce VOC levels in the sub-slab soil vapors and to control migration of vapors through the floor slab into the building.

The air emissions from the SSDPS are monitored for compliance with the MDEQ air permit for this system. The emissions are estimated by analyzing the concentrations of VOCs in the soil vapor recovered through the system. These samples are obtained at a port in the 8-inch discharge pipe downstream from the SSDPS blower. A syringe needle is inserted into the airstream in the discharge pipe and a 40-ml sample of air is extracted into the syringe. The 40-ml sample is then injected under pressure into a 20-ml septum vial. The sample is sent to Microseeps Inc., in Pittsburgh for analysis of chlorinated VOCs by Method AM 4.02. The Microseeps Inc. laboratory reports are included in Acrobat (*.pdf) format on the enclosed data CD.

In conjunction with the air sample analysis, the air flow rate is measured with a digital anemometer that is inserted into the airstream in the discharge pipe; the air flow rate and VOC concentrations are used to calculate the VOC emissions rate. The emissions data for this quarter are shown on Table 2.

In addition to the MDEQ-required emissions sampling, PRR measures the differential pressure between the indoor air of the plant and the sub-slab soil vapor using a differential digital manometer on a monthly basis. These measurements are required by the CAMP, and are intended to verify that the system is maintaining a net vacuum beneath the slab so that sub-slab vapors cannot migrate upward into the indoor air of the building. The data for this quarter are shown on Table 3.

2.3 Indoor Air and Sub-Slab Soil Vapor Monitoring

Paired indoor air/sub-slab soil vapor samples are obtained on a quarterly basis for VOC analysis as required by the CAMP. The indoor air samples were collected using 6-liter Summa canisters equipped with critical orifice flow regulators sized to collect the air sample over a 24-hour period. Each canister was pre-labeled by the laboratory with a canister designation number. The canister number and sample location were recorded on the chain of custody (COC). The canister vacuum was measured in the field at deployment using an integrated vacuum gauge and recorded on the COC. The canister was opened fully, and the start time and initial vacuum were recorded. The canister valve was closed at the end of the sampling period and the end time and final canister vacuum were recorded. A safety cap was placed on the canister inlet.

The sub-slab soil vapor samples were collected using 6-Liter Summa canisters as described above, except that the canister inlets were connected to the VMPs via laboratory-supplied tubing.

The samples were sent to PACE Analytical Services, Inc. in Minneapolis, Minnesota for analysis of chlorinated VOCs using Method TO-15. The data are summarized in Tables 4 and 5 and are shown on Figure 5. Table 6 shows a summary of historical TCE data for both indoor air and sub-slab soil vapor.

The field sampling records, COCs and laboratory reports are included on the appended data CD.

2.4 Operation and Maintenance Documentation

The purge well system is inspected and tested quarterly by Peerless Midwest Inc. The purge well operating data for this quarter are summarized in Table 7.

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3.0 MONITORING RESULTS AND EVALUATION

The results of the monitoring for this quarter are summarized in the tables and figures in this report, and are discussed in the following sections.

3.1 GSI Compliance Groundwater Monitoring

The GSI compliance monitoring data are summarized on Table 1 and in Figures 2, 3 and 4. Time trend plots for TCE concentrations in the GSI compliance monitoring wells are shown in Figure 6.

Four of the GSI wells sampled this period had TCE concentrations above the GSI value of 200 µg/l: 98-245A, 02-02, 06-17/2 and 98-224B. The VOC concentrations at 02-02 and 98-245A have been above the GSI for several periods, and the purge wells associated with these wells (PW-5 and PW-10) are being maintained in operation in accordance with the CAMP.

GSI compliance monitoring well 98-224B is associated with purge well PW-16. This purge well was shut down earlier this year, with notice to EPA, after monitoring demonstrated that the well met the requirements for shut down as described in the *Revised Purge Well Shutdown Criteria* document dated February 6, 2012. As described in that document, if 98-224B has TCE above the GSI again at the next sampling event (fourth quarter of 2014) purge well PW-16 may have to be returned to operation.

GSI compliance monitoring well 06-17/2 is associated with purge well PW-15. This purge well was shut down in June of 2013, with notice to EPA, because the water pumped from the well contained biologic mass that caused plugging of the air stripper tower. The biologic mass is likely related to the ABC+ injections at the Oil Storage Room. Over the course of the year since PW-15 was shut down, the TCE concentrations at 06-17/2 have steadily rebounded and in this quarter the TCE concentration was 330 µg/l. This is the same concentration that was recorded for PW-15 just prior to its shut-down. Since TCE concentrations in wells just upgradient of PW-15 (i.e. 06-18/1 and 06-18/2 have had significantly lower TCE concentrations, it seems unlikely that the TCE levels at 06-17/2 will rebound much further. However, PRR does intend to return PW-15 to operation. The pumped water will be tested and observed for indications that it might cause further plugging of the stripper tower. If so, PRR will evaluate the possibility of pre-treating the pumped water so that it could remain in operation.

During this quarter PRR obtained a supplemental sample from well 96-203A to assist in evaluating effectiveness of ABC+ injections in the Old Borrow Pit area. This sample had a high TCE concentration compared to past levels and no significant concentrations of degradation products. This indicates that the ABC+ injections have not had a significant impact in this area, or the injected material has not migrated into the vicinity of monitoring well 96-203A.

3.2 Sub-Slab Depressurization System Monitoring Results

The SSDPS monitoring included measuring vacuums beneath the building slab and analyzing the air emissions from the system's blower.

During this quarter the air emissions from the SSDPS were measured as summarized on Table 2. The data showed a TCE concentration of 4.6 milligrams per cubic meter (mg/m^3) and an air flow rate (corrected to standard temperature) of 466 cubic feet per minute (cfm). The total VOC emissions rate was calculated from these data as 0.011 pounds per hour (pph), which is well below the limits allowed in the MDEQ air permit for this system. In accordance with the permit, PRR will continue to measure air emissions on a quarterly basis.

The vacuum measurements obtained in this quarter are shown on Table 3 and demonstrate that the SSDPS is maintaining a net vacuum beneath the slab, which should control migration of vapors from the soil into the building through the slab.

3.3 Indoor Air and Sub-Slab Soil Vapor Monitoring Results

The indoor air and sub-slab soil vapor were sampled in August and September during this quarter and the analytical data are summarized on Tables 4 and 5 respectively. For reference these tables include Regional Screening Levels (RSL) published by the USEPA in November, 2012 for indoor air and sub-slab soil vapors at industrial sites.

The concentration of TCE in indoor air (Table 4) was below the RSL at all sample locations. As shown in Table 6, no indoor air sample has exceeded the RSL for any compound since August 2013.

In the sub-slab soil vapor samples (Table 5), the RSL for TCE (293 $\mu g/m^3$) was exceeded at five of the eight monitored VMPs. No other analyzed VOCs were reported above the USEPA RSLs in any sample. The data are consistent with historical patterns.

3.4 Operation and Maintenance

The purge well operational data are summarized on Table 7. No significant operational or maintenance issues were reported for this quarter.

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4.0 CONCLUSIONS

This report presents the results of the regular quarterly monitoring at the PRR site for the third quarter of 2014.

The data demonstrate that VOC concentrations in the groundwater at the designated GSI compliance monitoring wells are below the GSI at all but four of the GSI monitoring wells. Two of these are associated with purge wells that are still in operation. Well 98-224B is associated with a purge well that was recently shut down (PW-16), and this purge well may have to be re-started depending on the results obtained at 98-224B in the next quarterly sampling event.

The fourth GSI monitoring well with a GSI exceedence was at 06-17/2, which is associated with PW-15. PRR plans to re-start this purge well with observation and testing to determine if pre-treatment if biologic plugging of the stripper tower might still be an issue with this well, and if so is pre-treatment of the pumped water feasible.

A spot check at well 96-203A suggests that the initial ABC+ injection in the Old Borrow Pit area may not have been effective or has not yet migrated to the vicinity of this well.

The SSDPS monitoring continues to demonstrate that the SSDPS is operating as intended; the system is reducing VOC concentrations in the sub-slab soil vapor and is maintaining a net vacuum beneath the building's floor slab. Emissions from the SSDPS are in compliance with the system's air permit.

Monitoring of the indoor air and sub-slab soil vapors demonstrate that the TCE levels in the building's indoor air were below the RSL at all locations. PRR continues to implement contingency measures, including improved ventilation, in the building.

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TABLE 1: SUMMARY OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER - AUGUST 2014

WELL	DEPTH, FEET	TRICHLORO ETHENE	1,1,1-TRICHLOROETHANE	CIS-1,2 DICHLOROETHENE	TRANS-1,2-DICHLOROETHENE	VINYL CHLORIDE	11-DICHLOROETHENE	11-DICHLOROETHANE
Part 201 GSI Criterion		**200**	**89**	**620**	**1,500**	**13**	**130**	**740**
GSI COMPLIANCE MONITORING WELLS								
83-17B	42	53	< 1	37	2.0	< 1	< 1	< 1
83-19A	15	5.8	< 1	1.3	< 1	< 1	< 1	< 1
83-19B	41	150	1.1	30	1.8	7.1	< 1	< 1
83-21A	21	1.6	< 1	< 1	< 1	< 1	< 1	< 1
83-21B	47	57	< 1	13	2.5	< 1	< 1	< 1
83-28A	20	1.3	< 1	130	16	< 1	< 1	< 1
83-28B	53	6.9	< 1	24	< 1	3.1	< 1	< 1
13-224A	24	14	< 1	4.6	< 1	< 1	< 1	< 1
98-224B	42	**210**	< 2	17	2.3	< 2	< 2	< 2
98-245A	33	**250**	< 2.5	16	2.5	< 2.5	< 2.5	< 2.5
02-02	32	**230**	6.1	11	< 2	4.6	< 2	< 2
02-03	64	1.7	< 1	< 1	< 1	< 1	< 1	< 1
02-04	42	120	< 1	27	5.2	< 1	< 1	< 1
05-15	25	4.2	< 1	1.9	< 1	< 1	< 1	< 1
05-16	29	4.1	< 1	< 1	< 1	< 1	< 1	< 1
06-17 / 1	30	120	5.5	7.0	< 1	12	< 1	< 1
06-17 / 2	50	**330**	38	33	< 2.5	5.4	< 2.5	< 2.5
06-20 / 1	15	< 1	< 1	< 1	< 1	< 1	< 1	< 1
06-20 / 2	30	< 1	< 1	< 1	< 1	< 1	< 1	< 1
OLD BORROW PIT ABC+ INJECTION AREA MONITORING WELLS								
96-203A	26	**580**	< 5	37	< 5	< 5	< 5	< 5

NOTES:

All samples were analyzed by EPA Method 8260; results are micrograms per liter

< = Less than

Bold = Exceeds GSI criterion

TABLE 2: EMISSIONS FROM SUB-SLAB DEPRESSURIZATION SYSTEM

	August 28, 2014
Trichloroethene, mg/m^3	4.6
cis-1,2-dichloroethene, mg/m^3	1.5
1,1,1-trichloroethane, mg/m^3	0.2
Total VOCs, mg/m^3	6.1
Total VOCs, pcf	3.80E-07
Air velocity, fpm	1,350
Pipe area, square feet	0.35
Air flow rate, acfm	471
Temperature, ºC	29
Air flow rate, cfm	466
VOC emission rate, pph	0.011

Notes:

mg/m^3 = milligrams per cubic meter
VOC = Volatile organic compounds; sum of trichloroethene, cis-1,2-dichloroethene, and 1,1,1-trichloroethane
pcf = Pounds per cubic foot
fpm = Feet per minute (measured)
acfm = Actual cubic feet per minute (not corrected to standard temperature)
cfm = Cubic feet per minute (corrected to standard temperature)
pph = Pounds per hour

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TABLE 3: SUB-SLAB VACUUM MEASUREMENTS

	July 28, 2014	August 28, 2014	September 5, 2014
VMP-1	-0.01	-0.01	-0.01
VMP-2	-0.02	-0.01	-0.01
VMP-3	--	--	--
VMP-10	-0.02	-0.01	-0.01
VMP-11	-0.01	-0.01	-0.01
VMP-12	-0.03	-0.02	-0.01
VMP-13	-0.02	-0.01	-0.01
VMP-14	-0.03	-0.01	-0.01
VMP-15	-0.02	-0.02	-0.02
VMP-16	-0.01	-0.01	-0.01
VMP-17	-0.02	-0.02	-0.02
VMP-18	-0.05	-0.04	-0.04

NOTES:

Measurements are in inches of water
Negative values indicate a gradient down from the building to the sub-slab soil
Positive values indicate a gradient up from the sub-slab soil into the building

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TABLE 4: INDOOR AIR ANALYTICAL DATA - SEPTEMBER, 2014

Compound	Indoor Air Screening Level*	PRR Office	JMT	Velthouse Antiques	Michigan Precision	Lower Level - NE
Chloroethane	44,000	<1.3	<1.0	<0.84	<0.87	<0.87
1,1-Dichloroethane	77	<1.9	<1.6	<1.3	<1.3	<1.3
cis-1,2-Dichloroethene	260	<1.9	<1.6	<1.3	<1.3	<1.3
t-1,2-Dichloroethene	260	<1.9	<1.6	<1.3	<1.3	<1.3
Tetrachloroethene	180	<1.6	<1.3	<1.1	<1.1	<1.1
1,1,1-Trichloroethane	22,000	<2.6	<2.1	<1.7	<1.8	<1.8
Trichloroethene	8.8	**3.0**	**4.1**	**2.9**	**3.3**	<1.8
Vinyl Chloride	28	<0.62	<0.50	<0.40	<0.42	<0.42

Compound	Indoor Air Screening Level*	South Rec. Park	Quality Trucking	North Rec. Park 1	North Rec. Park 2	Lower Level - SW
Chloroethane	44,000	<0.87	<0.87	<0.84	<0.87	<0.84
1,1-Dichloroethane	77	<1.3	<1.3	<1.3	<1.3	<1.3
cis-1,2-Dichloroethene	260	<1.3	<1.3	<1.3	<1.3	<1.3
t-1,2-Dichloroethene	260	<1.3	<1.3	<1.3	<1.3	<1.3
Tetrachloroethene	180	<1.1	**6.2**	**1.4**	<1.1	<1.1
1,1,1-Trichloroethane	22,000	<1.8	<1.8	<1.7	<1.8	<1.7
Trichloroethene	8.8	**2.6**	**1.8**	**2.5**	<1.8	<1.7
Vinyl Chloride	28	<0.42	<0.42	<0.40	<0.42	<0.40

Notes:
All data presented in micrograms per cubic meter
Compounds analyzed by USEPA Method TO-15
Bold indicates a detection above reporting limit; yellow highlighted results exceed industrial indoor air screening levels.
< - Not detected at or above the reported detection limit.
*USEPA Regional Screening Level for Industrial Air (USEPA, November 2012), adjusted for target risk of 1x10-5 and target hazard quotient of 1.

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TABLE 5: SUB-SLAB SOIL VAPOR ANALYTICAL DATA - SEPTEMBER, 2014

Compound	Sub-Slab Soil Vapor Screening Level*	PRR Office / VMP-11	JMT / VMP-12	Velthouse Antiques / VMP-13	Michigan Precision / VMP-14
Chloroethane	1,466,667	<0.87	<0.87	<0.87	<0.87
1,1-Dichloroethane	2,567	<1.3	<1.3	<1.3	<1.3
cis-1,2-Dichloroethene	8,667	<1.3	**1.4**	<1.3	<1.3
t-1,2-Dichloroethene	8,667	<1.3	<1.3	<1.3	<1.3
Tetrachloroethene	6,000	**9.0**	**20.2**	**2.2**	**4.4**
1,1,1-Trichloroethane	733,333	**12.3**	<1.8	**91.1**	**4.2**
Trichloroethene	293	**300**	**33.8**	**2,400**	**731**
Vinyl Chloride	933	<0.42	<0.42	<0.42	<0.42

Compound	Sub-Slab Soil Vapor Screening Level*	South Rec. Park / VMP-15	Quality Trucking / VMP-16	North Rec. Park 1 / VMP-17	North Rec. Park 2 / VMP-18
Chloroethane	1,466,667	<0.84	**3.9**	<0.84	<0.87
1,1-Dichloroethane	2,567	<1.3	**57.7**	<1.3	<1.3
cis-1,2-Dichloroethene	8,667	**2.5**	**130**	**6.3**	<1.3
t-1,2-Dichloroethene	8,667	<1.3	**8.1**	<1.3	<1.3
Tetrachloroethene	6,000	**12.8**	**153**	**76.7**	**3.7**
1,1,1-Trichloroethane	733,333	**2.5**	**989**	**13.5**	<1.8
Trichloroethene	293	**767**	**5,020**	**258**	**3.1**
Vinyl Chloride	933	<0.40	<0.42	<0.40	<0.42

Notes:
All data presented in micrograms per cubic meter
Compounds analyzed by USEPA Method TO-15.
Bold indicates detection above reporting limit: yellow highlighted results exceed industrial sub-slab screening levels.
< - Not detected at or above the reported detection limit.
*USEPA Regional Screening Level for Industrial Air (USEPA, November 2012), adjusted for target risk of 1x10-5 and target hazard quotient of 1, divided by USEPA-recommended attenuation factor of 0.03.

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TABLE 6: SUMMARY OF TRICHLOROETHENE DATA FOR INDOOR AIR AND SUB-SLAB SOIL VAPOR IN PRR BUILDING

	Mar-12	Oct-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Aug-13	Sep-13	Oct-13	Mar-14	Jun-14	Sep-14
PRR Office	17	1.3	0.52	<2.1	0.97	<1.1	2.2	3.5	6.9	4	3.7	0.83	<0.96	1.8	3.0
VMP-11	1000	910	620	460	671	474	1,620	345	778	15	796	578	117	370	300
JMT	39	1.5	0.41	0.72	3.2	<0.74	2.7	<0.82	12.8	10.0	6.9	<0.85	4.1	1.7	4.1
VMP-12	1,800	<2.1	<2.1	<2.1	5.5	3.9	34.4	6.7	9.6	5.4	66.5	0.81	<0.79	4.3	33.8
VH Antiques	26	6.7	3.3	1.7	2.9	1.8	8.4	21.7	18.7	3.9	3.1	1.5	4.1	<0.92	2.9
VMP-13	32,000	1,400	--	--	1,160	1,870	1,670	943	203	989	6,160	990	1,920	533	2,400
MP	6	16	--	8.6	14.4	67.7	8.8	6.1	2.1	4.8	1.8	2.9	<0.74	<0.89	3.3
VMP-14	8,800	6,300	6,700	1,100	10,800	4,780	3,770	3,260	1,220	658	1,510	342	132	82.3	731
SREC	20	22	7.1	4.6	13.3	12.5	6.1	9.5	4.1	2.2	<1.2	<0.74	<0.74	<0.89	2.6
VMP-15	14,000	220	170	200	139	73	50.8	180	197	397	1,450	156	58.7	67.8	767
QT	30	7.6	6.1	5.5	16.8	15.0	6.9	11.9	<0.92	1.1	<1.6	<0.79	<0.79	2.4	1.8
VMP-16	33,000	7,700	690	2,400	261	3,160	1,700	15.6	7.0	6,840	1,280	--	2,240	452	5,020
NREC-1	20	24	7.0	9.8	37.6	15.4	37.1	8.3	8.3	1.1	<1.0	<0.76	2.5	1.4	2.5
VMP-17	670	220	56	48	39.8	36.1	39.0	7.9	11.0	<0.79	209	1.9	45.4	234	258
NREC-2	--	--	--	--	--	19.0	13.6	9.0	2.4	0.90	2.4	<0.74	0.82	<1.0	<1.8
VMP-18	--	--	--	18,000	29,800	60.0	1,050	9.9	919	<0.89	2,180	15,300	<0.74	<0.89	3.1
LL-NE	--	--	--	--	--	--	--	--	9.2	2.8	<3.2	0.93	1.3	<0.85	<1.8
LL-SW	--	--	--	--	--	--	--	--	8.5	3.5	--	1.6	<0.76	1.2	<1.7

NOTES:

Units are micrograms per cubic meter
< = Less than
-- = Not sampled or data not valid
Red = Exceeds Indoor Air screening level
Blue = Exceeds Sub-slab Vapor screening level

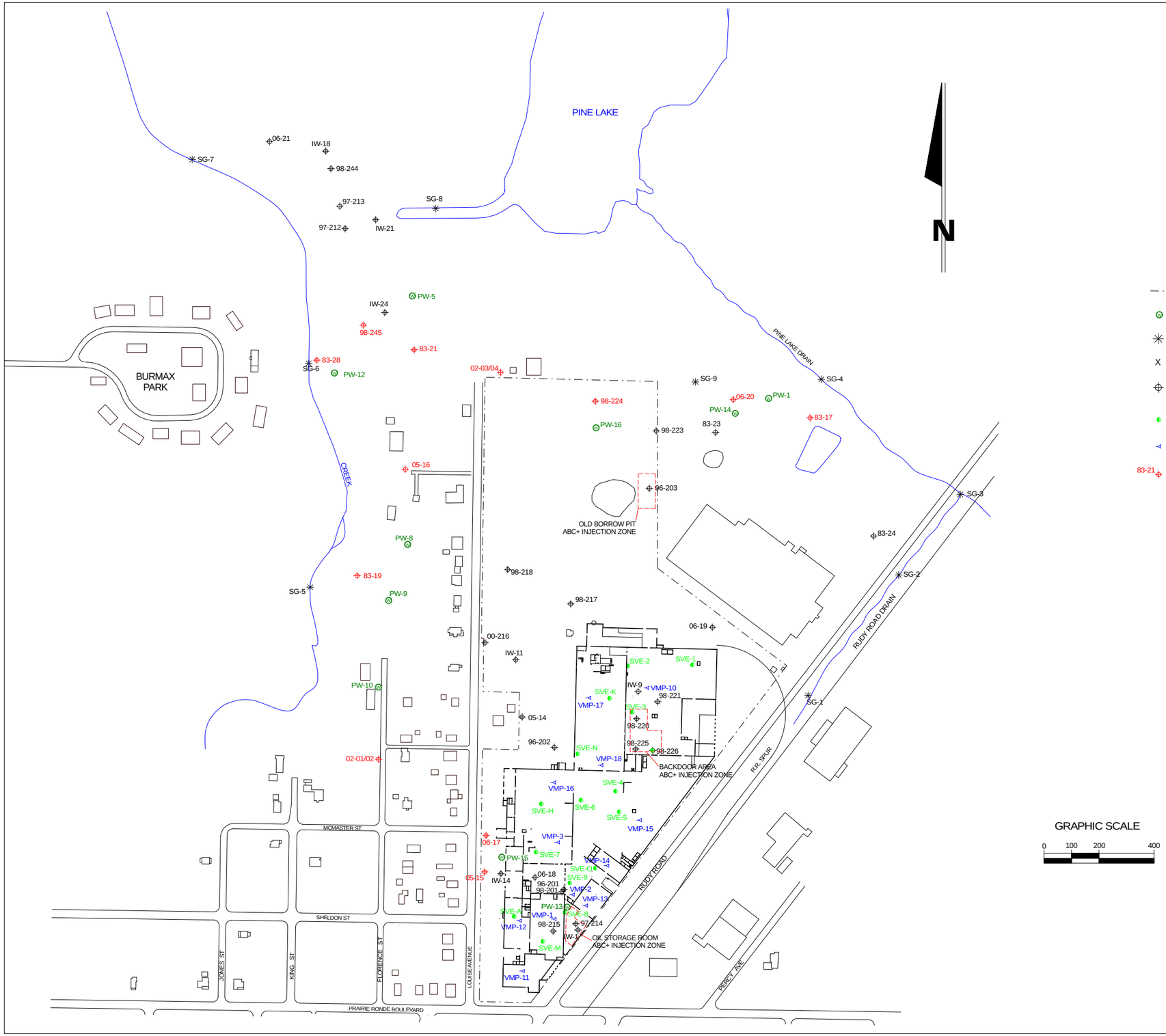
US EPA ARCHIVE DOCUMENT

TABLE 7: PURGE WELL SUMMARY - THIRD QUARTER 2014

Purge Well	Current Status	Initial Flowmeter Reading	July 17, 2014		
		April 17, 2014	Flow Rate, GPM	Total Gallons (x 1,000)	
PW-1	Shut Down January 2013	--	--	--	
PW-3	Abandoned October 2013	--	--	--	
PW-4	Abandoned October 2013	--	--	--	
PW-5	Operating	173,604	84	99,054	(cleaned and reset meter)
PW-6	Abandoned October 2013	--	--	--	
PW-7	Abandoned October 2013	--	--	--	
PW-8	Shut Down June 2013	--	--	--	
PW-9	Shut Down October 2012	--	--	--	
PW-10	Re-started April 2014	48,290	51	55,482	
PW-12	Shut Down June 2013	--	--	--	
PW-13	Shut Down September 2008	--	--	--	
PW-14	Shut Down May 2014	--	--	--	
PW-15	Shut Down May 2013	--	--	--	
PW-16	Shut Down June 2014	--	--	--	
500GPM	Shut Down January 2008	--	--	--	
20 GPM	Shut Down September 2008	--	--	--	
	TOTAL PUMPING RATE, GPM	--	135	--	

-- = Not measured or not applicable
GPM = Gallons per minute

US EPA ARCHIVE DOCUMENT



LEGEND:

- PRAIRIE RONDE REALTY PROPERTY LINE
- PURGE WELLS
- STAFF GAUGE
- X SURFACE WATER SEEP SAMPLING POINT
- MONITORING WELL LOCATION: SOME LOCATIONS HAVE MULTIPLE WELLS
- SUBSLAB DEPRESSURIZATION VAPOR EXTRACTION WELLS
- SOIL VAPOR MONITORING POINT
- 83-21 GSI COMPLIANCE MONITORING POINT

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THIRD QUARTER 2014 MONITORING REPORT

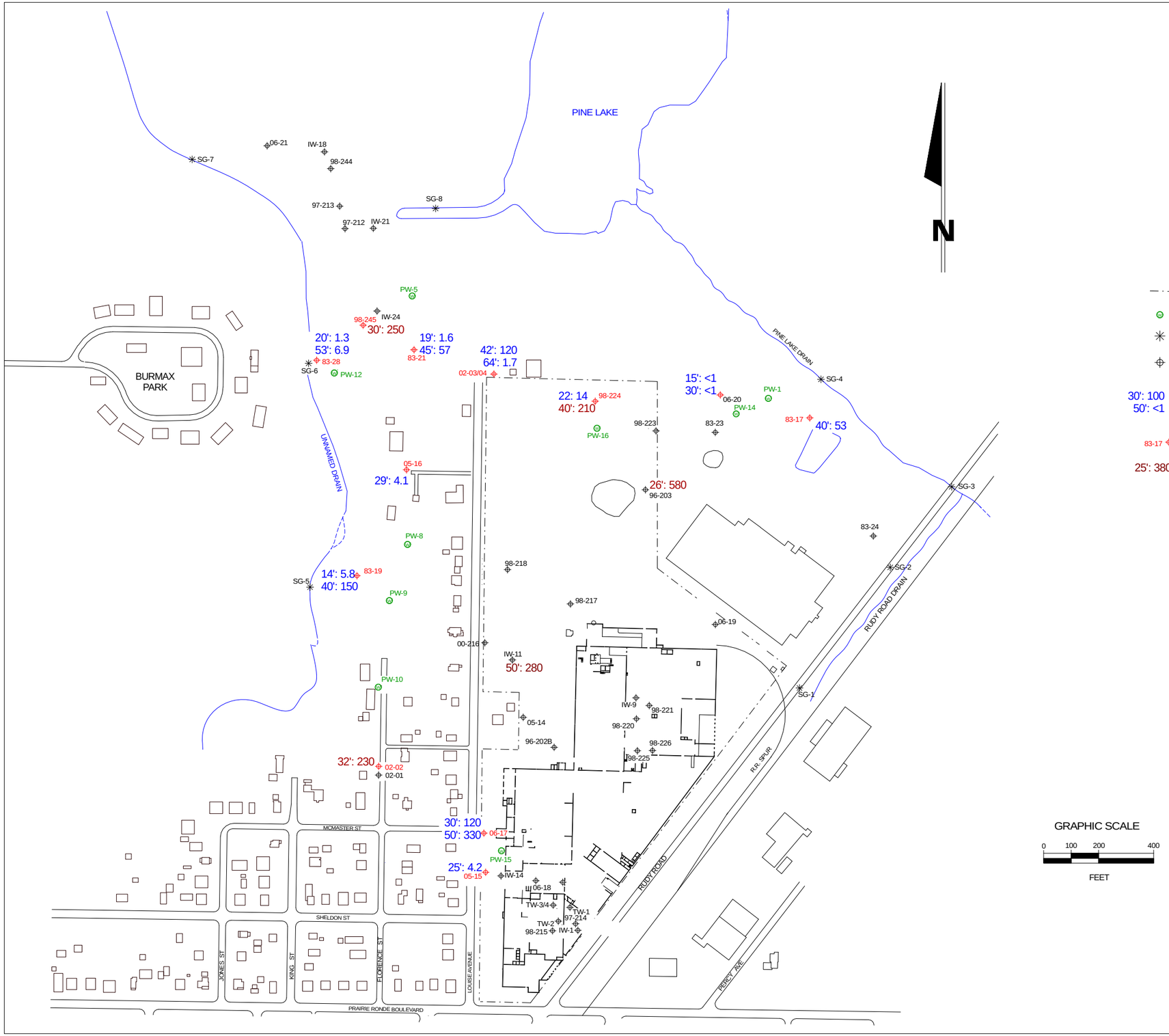
FOR:

PRAIRIE RONDE REALTY COMPANY
415 East Prairie Ronde, Dowagiac, Michigan 49047

Figure 1:

SITE PLAN

US EPA ARCHIVE DOCUMENT



LEGEND:

— · -	PRAIRIE RONDE REALTY PROPERTY LINE
⊙	PURGE WELLS
✳	STAFF GAUGE
⊕	MONITORING WELL LOCATION: SOME LOCATIONS HAVE MULTIPLE WELLS
30': 100 50': <1	TRICHLOROETHENE CONCENTRATION, MICROGRAMS PER LITER; INDICATED DEPTHS ARE TO BOTTOM OF WELL SCREEN; < = LESS THAN
83-17 ⊕	GROUNDWATER-SURFACE WATER INTERFACE (GSI) COMPLIANCE MONITORING WELL
25': 380	EXCEEDS GSI CRITERION FOR TRICHLOROETHENE (200 MICROGRAMS PER LITER)

GRAPHIC SCALE

0 100 200 400

FEET

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THIRD QUARTER 2014 MONITORING REPORT

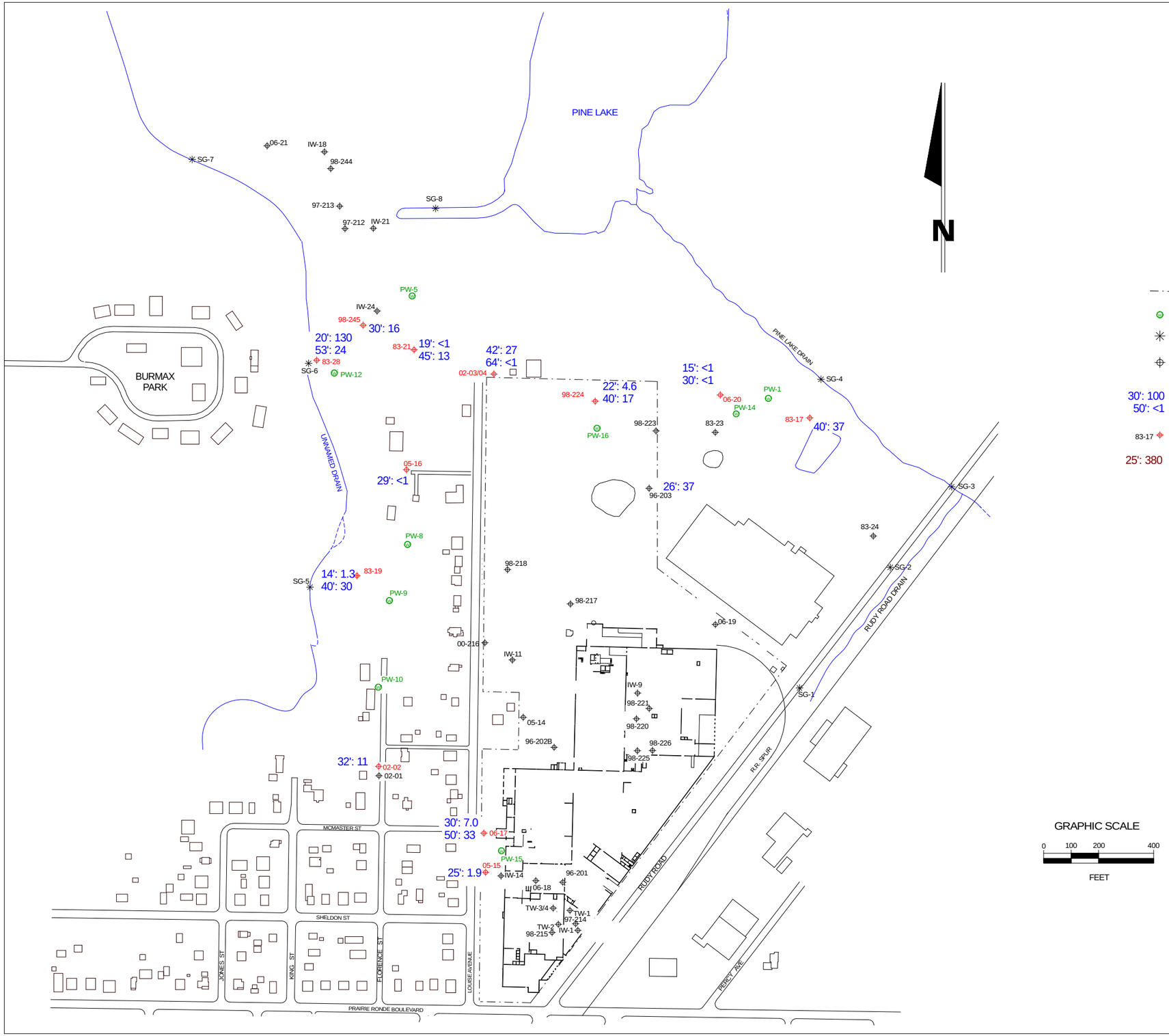
FOR:

PRAIRIE RONDE REALTY COMPANY
415 East Prairie Ronde, Dowagiac, Michigan 49047

Figure 2:

TRICHLOROETHENE IN WELLS SCREENED ABOVE THE AQUITARD LAYER

US EPA ARCHIVE DOCUMENT



LEGEND:

— · -	PRAIRIE RONDE REALTY PROPERTY LINE
⊙	PURGE WELLS
✳	STAFF GAUGE
⊕	MONITORING WELL LOCATION: SOME LOCATIONS HAVE MULTIPLE WELLS
30': 100 50': <1	CIS-1,2 DICHLOROETHENE CONCENTRATION, MICROGRAMS PER LITER; INDICATED DEPTHS ARE TO BOTTOM OF WELL SCREEN; < = LESS THAN
83-17 ⊕	GROUNDWATER-SURFACE WATER INTERFACE (GSI) COMPLIANCE MONITORING WELL
25': 380	EXCEEDS GSI CRITERION FOR CIS-1,2-DICHLOROETHENE (620 MICROGRAMS PER LITER)

GRAPHIC SCALE

0 100 200 400

FEET

Prepared By:

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THIRD QUARTER 2014 MONITORING REPORT

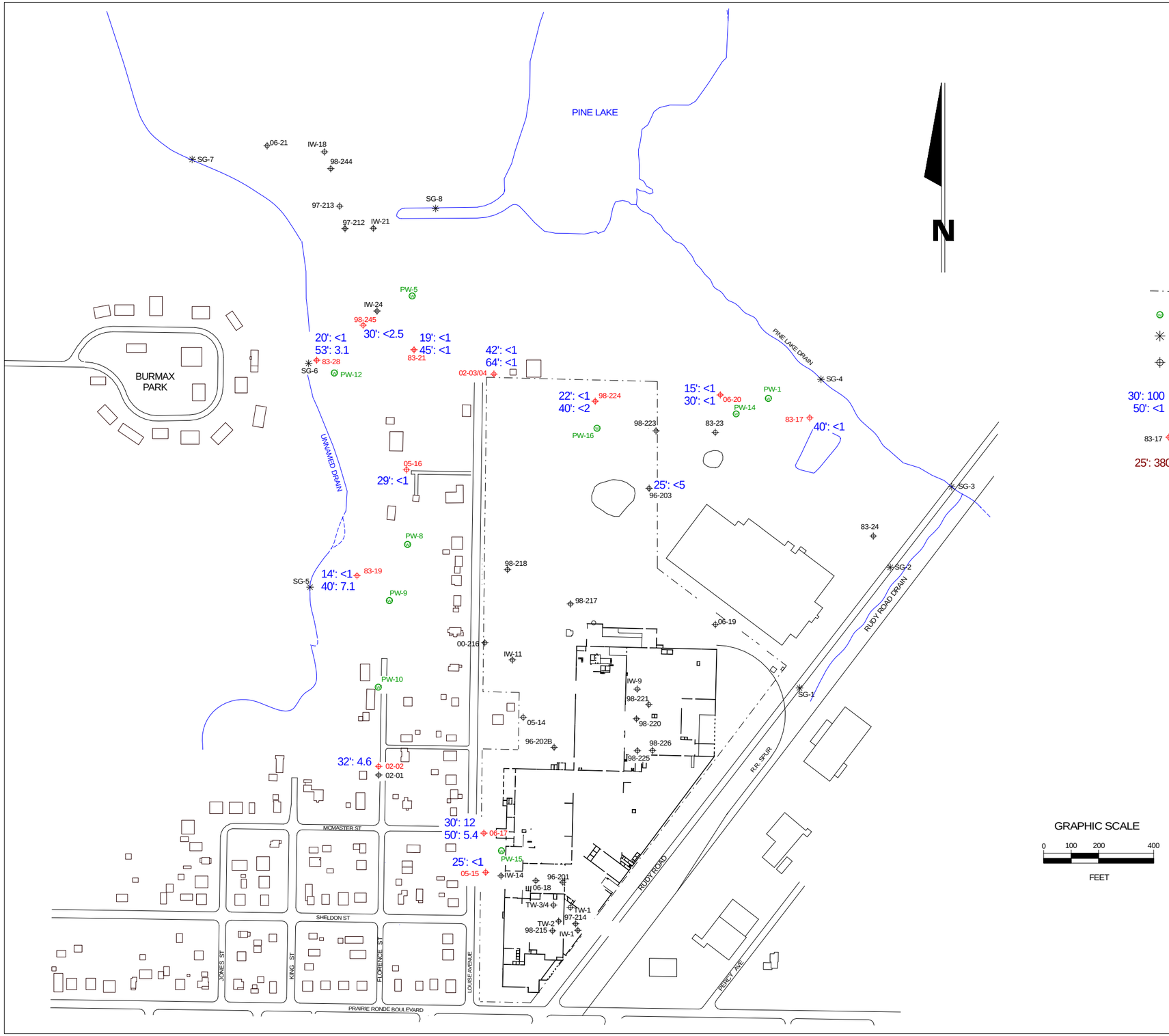
FOR:

PRAIRIE RONDE REALTY COMPANY
415 East Prairie Ronde, Dowagiac, Michigan 49047

Figure 3:

CIS-1,2-DICHLOROETHENE IN WELLS SCREENED ABOVE THE AQUITARD LAYER

US EPA ARCHIVE DOCUMENT



LEGEND:

— · -	PRAIRIE RONDE REALTY PROPERTY LINE
⊙	PURGE WELLS
✳	STAFF GAUGE
⊕	MONITORING WELL LOCATION: SOME LOCATIONS HAVE MULTIPLE WELLS
30': 100 50': <1	VINYL CHLORIDE CONCENTRATION, MICROGRAMS PER LITER; INDICATED DEPTHS ARE TO BOTTOM OF WELL SCREEN; < = LESS THAN
83-17 ⊕	GROUNDWATER-SURFACE WATER INTERFACE (GSI) COMPLIANCE MONITORING WELL
25': 380	EXCEEDS GSI CRITERION FOR VINYL CHLORIDE (13 MICROGRAMS PER LITER)

GRAPHIC SCALE

0 100 200 400

FEET

Prepared By:

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Geotechnical and Environmental Engineer

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THIRD QUARTER 2014
MONITORING REPORT

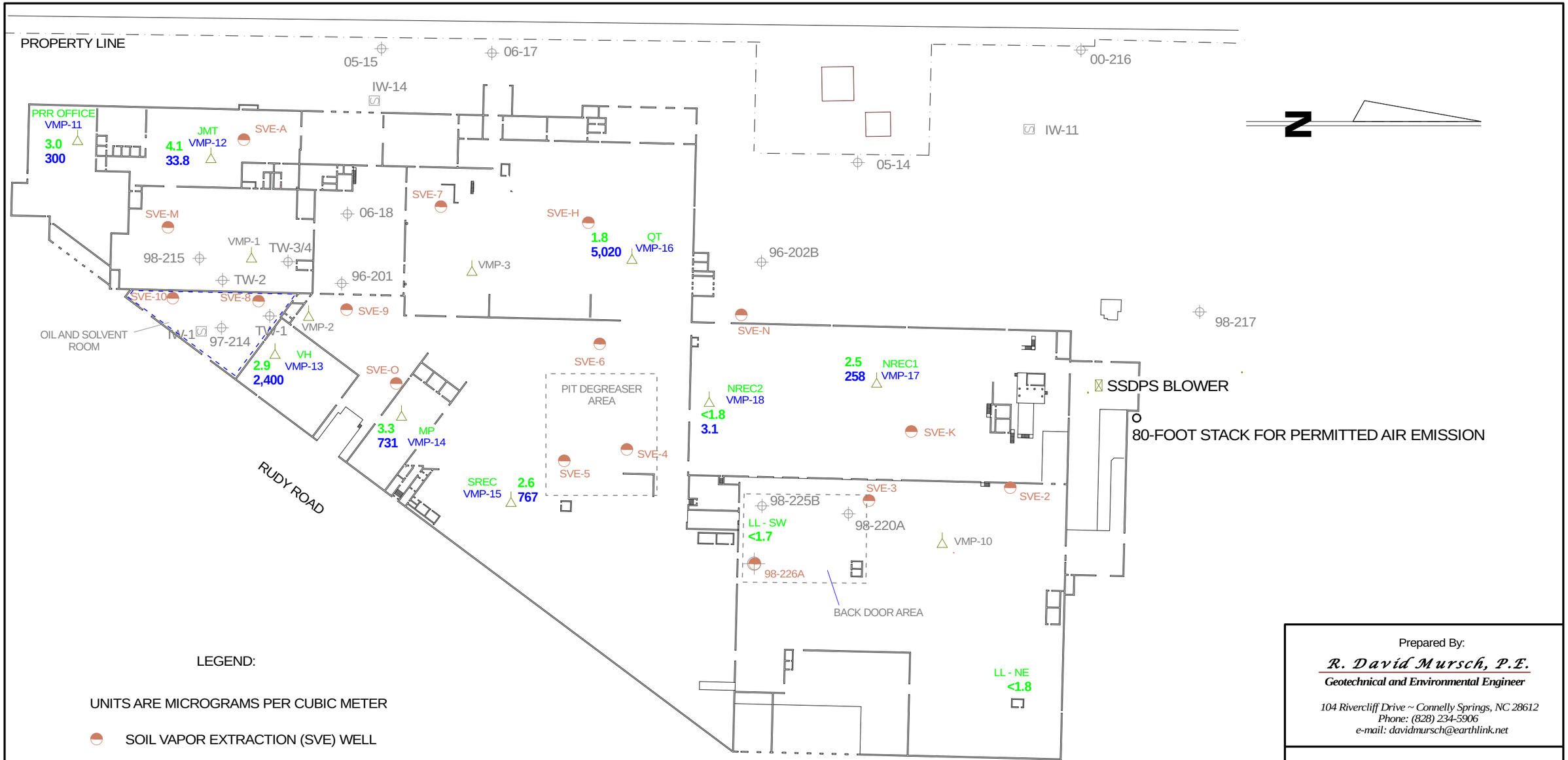
FOR:

PRAIRIE RONDE REALTY COMPANY
415 East Prairie Ronde, Dowagiac, Michigan 49047

Figure 4:

VINYL CHLORIDE IN WELLS SCREENED ABOVE THE AQUITARD LAYER

US EPA ARCHIVE DOCUMENT



LEGEND:

UNITS ARE MICROGRAMS PER CUBIC METER

- SOIL VAPOR EXTRACTION (SVE) WELL
- SUB-SLAB VACUUM MONITORING POINT (VMP)
- GROUNDWATER MONITORING WELL
- SOURCE AREA OF TCE RELEASE TO SOIL AND GROUNDWATER
- 1.5 TRICHLOROETHENE IN INDOOR AIR
- 2.1 TRICHLOROETHENE IN SUBSLAB SOIL VAPOR

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THIRD QUARTER 2014 MONITORING REPORT

FOR:

PRAIRIE RONDE REALTY COMPANY

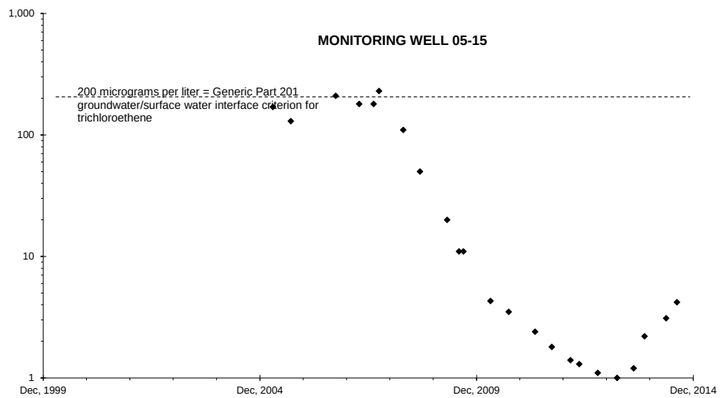
415 East Prairie Ronde, Dowagiac, Michigan 49047

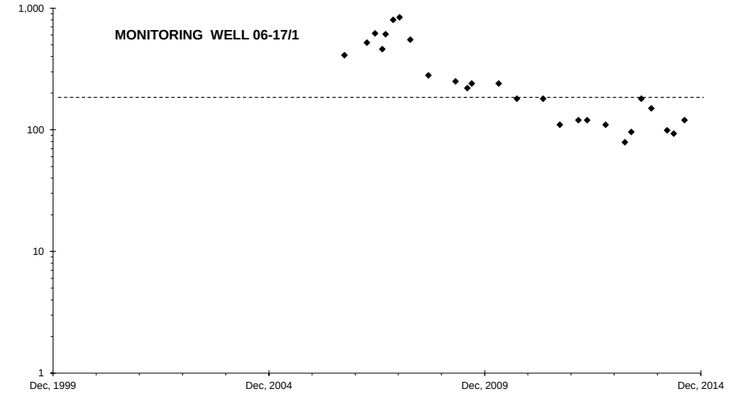
Figure 5:

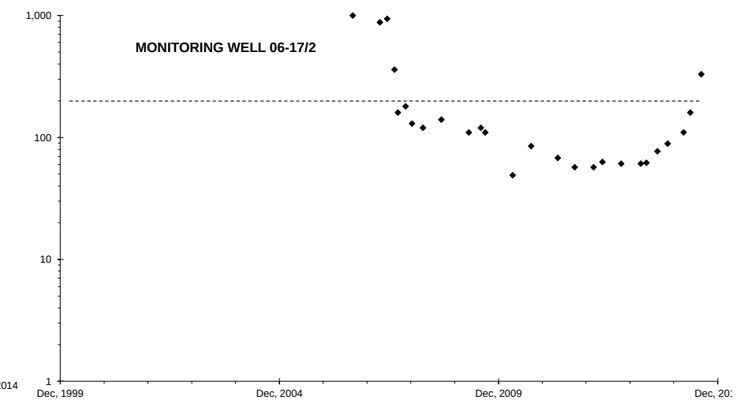
TRICHLOROETHENE IN INDOOR AIR AND SUB-SLAB SOIL VAPOR

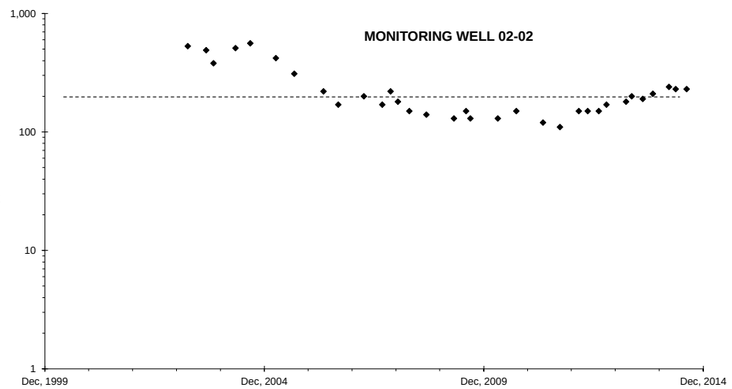
FIGURE 6: TRICHLOROETHENE CONCENTRATION TIME TRENDS IN GSI COMPLIANCE MONITORING WELLS (PAGE 1 OF 2)

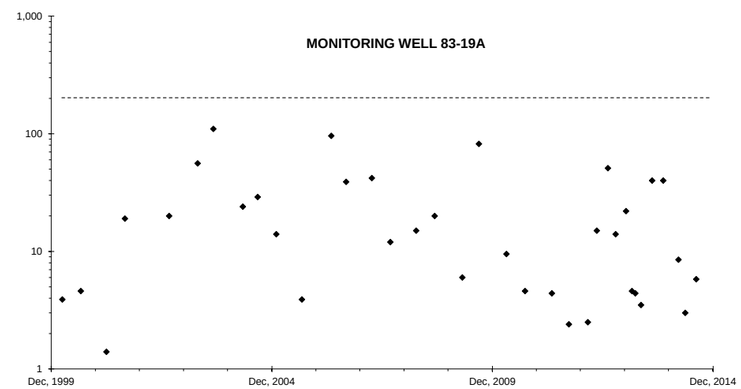
TRICHLOROETHENE CONCENTRATION, MICROGRAMS PER LITER

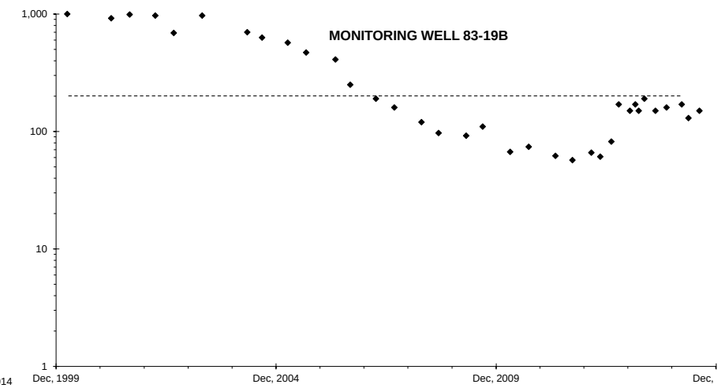


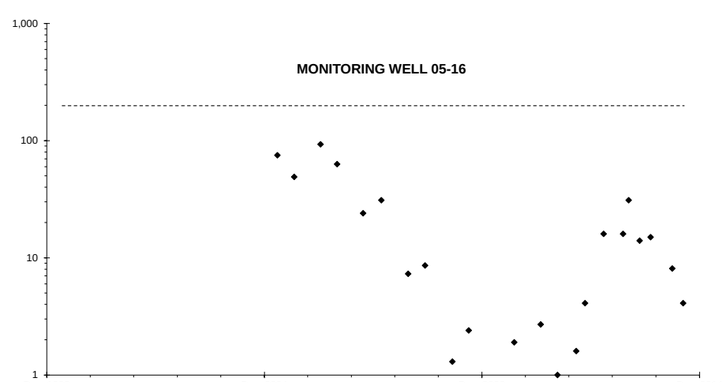


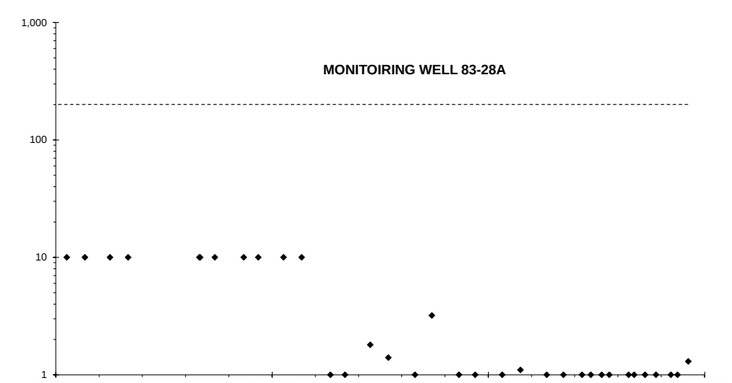


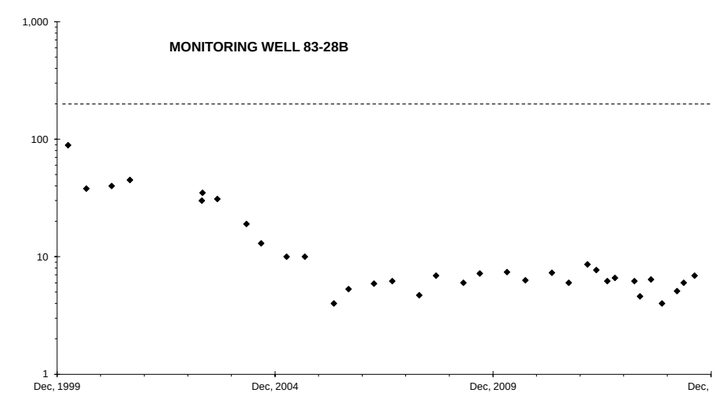








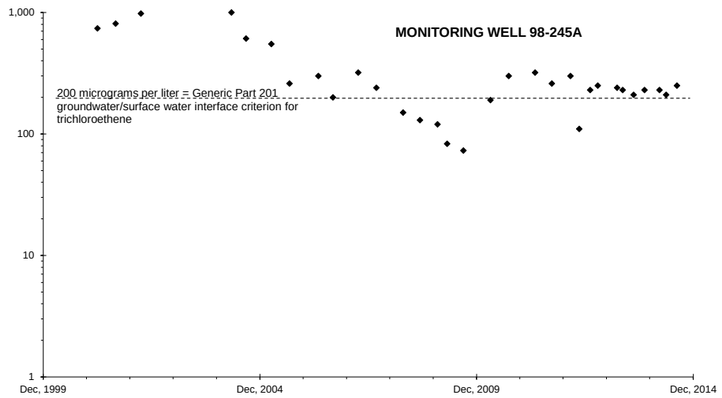


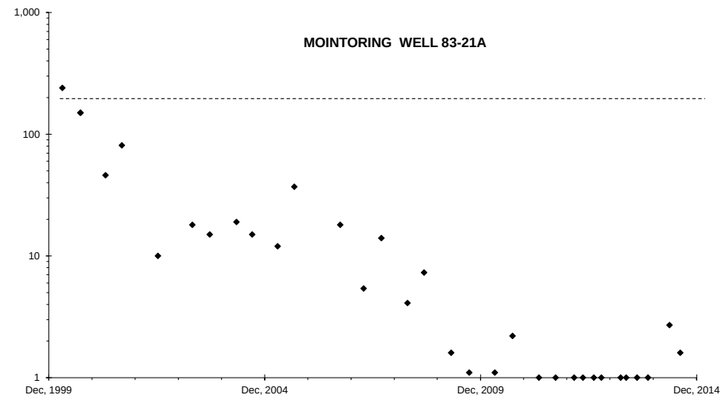


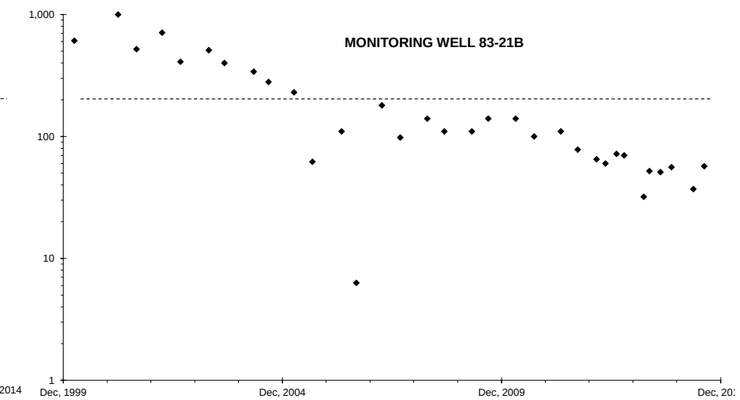
US EPA ARCHIVE DOCUMENT

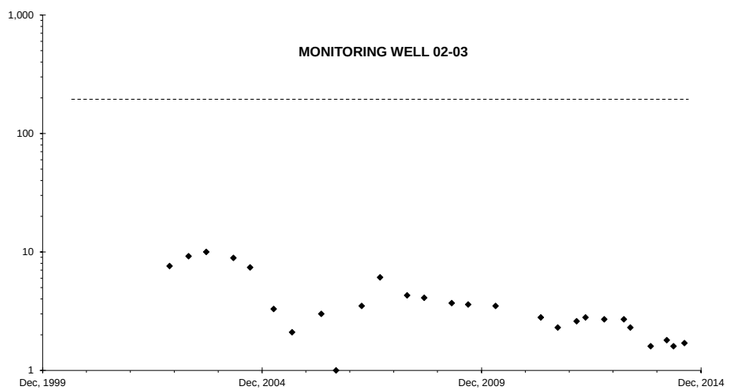
FIGURE 6: TRICHLOROETHENE CONCENTRATION TIME TRENDS IN GSI COMPLIANCE MONITORING WELLS (page 2 of 2)

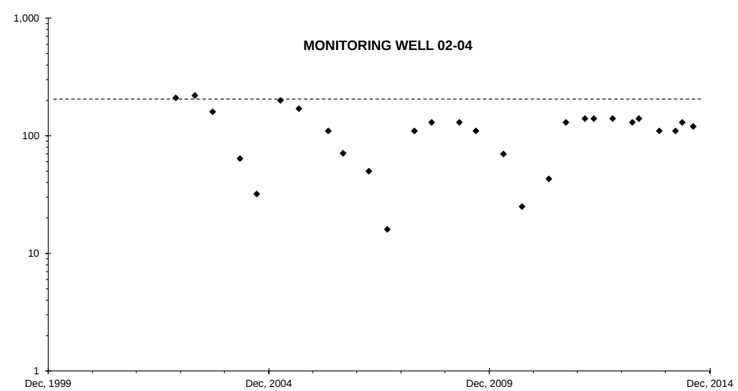
TRICHLOROETHENE CONCENTRATION, MICROGRAMS PER LITER

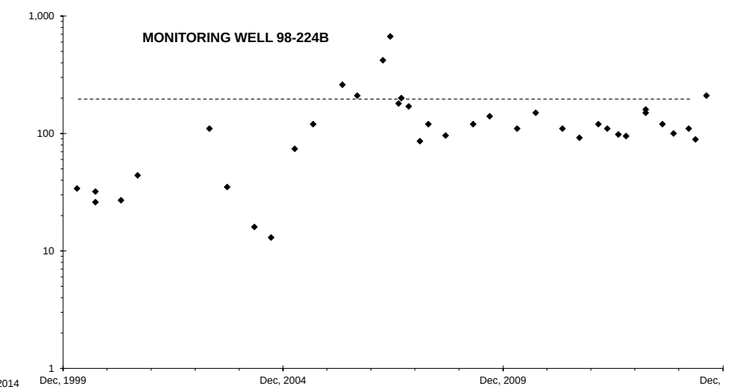


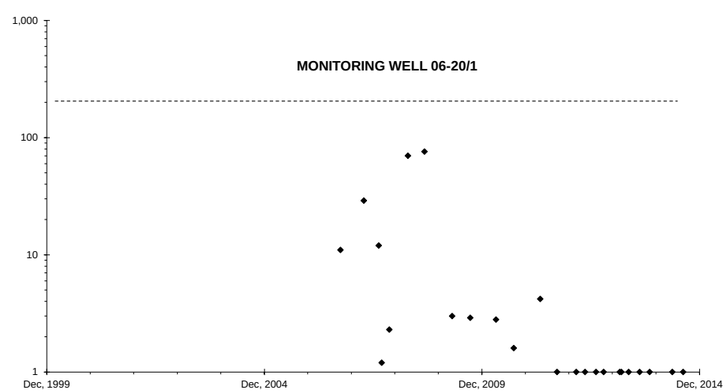


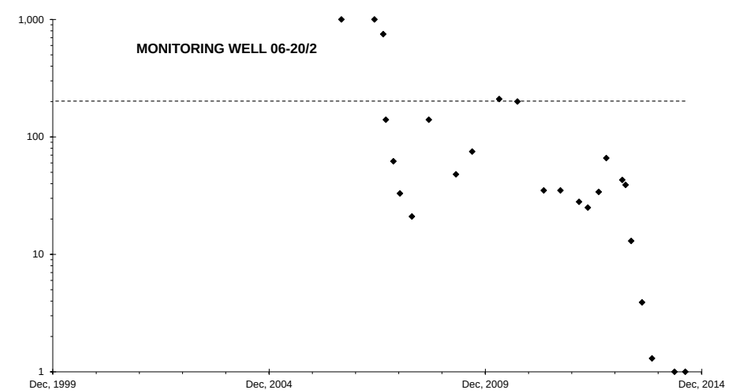


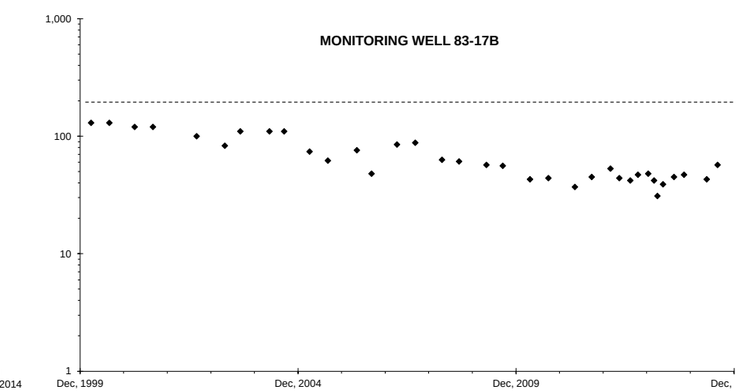












US EPA ARCHIVE DOCUMENT

R. David Mursch, P.E.
Geotechnical and Environmental Engineer
104 Rivercliff Drive *Connelly Springs, NC 28612*
phone (828) 234-5906

GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 06-17/1
Date:

WELL INFORMATION:

0700

Total well depth (feet): 30
- Depth to water in well (feet): —
= Water column (feet):
Screen length (feet): —

Well diameter (inches): 1 2 4 CMT Port
Volume factor (gallons per foot): 0.01 0.16 0.65

Pump intake depth (feet): 30 All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
0650	0	—	0	—	7.47	618	2	1.27	13.3
0653	3	—	800	265	7.42	615	4	0.10	13.2
0656	3	—	1600	265	7.38	614	0	0.39	13.1
0659	3	—	2500	300	7.38	613	0	0.33	13.1
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: clear, 50°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: R. David Mursch

R. David Mursch, P.E.
Geotechnical and Environmental Engineer
104 Rivercliff Drive *Connelly Springs, NC 28612*
phone (828) 234-5906

GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 06-17/2
Date: 8-14-14

WELL INFORMATION:

Total well depth (feet): 50
- Depth to water in well (feet): —
= Water column (feet): —
Screen length (feet): —

Well diameter (inches): 1 | 2 | 4 | CMT Port
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65

Pump intake depth (feet): 50 All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
[illegible]	0	—	0	—	7.31	611	11	1.16	13.3
0906	3	—	900	300	7.32	610	3	0.41	13.3
0909	3	—	1800	300	7.30	610	0	0.30	13.2
0912	3	—	2,700	300	7.30	607	0	0.27	13.2
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: clear, 50°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: [signature]

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104 Rivercliff Drive Connelly Springs, NC 28612
phone (828) 234-5906

GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 05-15
Date: 8-14-14

0710

WELL INFORMATION:

Total well depth (feet): 25
- Depth to water in well (feet): 18.49
= Water column (feet):
Screen length (feet): 5

Pump intake depth (feet): 22.5

All depths are from top of well riser.

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
0710	0	18.51	0	–	7.43	427	0	8.89	13.1
0723	3	18.51	1100	365	7.37	421	0	8.63	13.0
0726	3	18.51	2,100	333.5	7.25	441	0	8.67	13.0
0729	3	–	3000	300	7.26	446	0	8.71	13.0
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: clear, 55°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: [signature]

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 02-02
Date: 8-12-14
1640

WELL INFORMATION:

Total well depth (feet): 32
- Depth to water in well (feet): 15.61
= Water column (feet):
Screen length (feet): 5
Pump intake depth (feet): 29.5

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump
Purge Water Color: Clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
1626	0	15.73	0	—	7.29	649	0	0.91	13.9
1630	4	15.72	1500	375	7.29	640	0	0.55	13.7
1633	3	15.71	2400	300	7.26	639	0	0.50	13.6
1636	3	15.71	3,300	300	7.23	639	0	0.47	13.6
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny 75°
Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan
Comments:
Sampler(s)/Signature:

R. David Mursch, P.E.
Geotechnical and Environmental Engineer
104 Rivercliff Drive *Connelly Springs, NC 28612*
phone (828) 234-5906

GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 83-19A
Date: 8-13-14

1725

WELL INFORMATION:

Total well depth (feet): 15
- Depth to water in well (feet): 6.62
= Water column (feet):
Screen length (feet): 2

Pump intake depth (feet): 12.5 All depths are from top of well riser.

Well diameter (inches): 1 2 4 CMT
Volume factor (gallons per foot): 0.01 0.16 0.65 Port

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear / orange tinge

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
1712	0	7.73	0	—	7.85	290	2	0.46	14.4
1715	3	7.73	900	300	7.96	296	1	0.23	14.3
1718	3	7.72	1800	300	7.71	319	0	0.23	14.1
1721	3	7.71	2600	265	7.58	318	4	0.60	13.9
1724	3	—	3500	300	7.51	342	2	0.92	13.9
1727	3	—	4400	300	7.47	355	2	1.19	13.8
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: sunny, 75°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature:

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 82-198
Date: 8-12-14

1705

WELL INFORMATION:

Total well depth (feet): 40
- Depth to water in well (feet): 6.56
= Water column (feet):
Screen length (feet):

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Pump intake depth (feet): 38.5 All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
1653	0	6.92	0	–	7.60	530	0	0.42	13.5
1658	5	6.80	1,800	360	7.58	563	14	0.21	13.5
1701	3	6.80	2,800	330	7.58	575	11	0.18	13.5
1704	3	6.80	3,700	300	7.54	579	5	0.16	13.4
1707	3	6.80	4,600	300	7.49	580	4	0.15	13.4
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 75°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: [signature]

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: OS-16
Date: 8-13-14
1755

WELL INFORMATION:

Total well depth (feet): 29
- Depth to water in well (feet): 21.90
= Water column (feet):
Screen length (feet): 5

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Pump intake depth (feet): 26.5 All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: Clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
1741	0	21.92	0	—	7.35	520	0	5.56	12.0
1744	3	21.93	900	300	7.21	517	0	5.19	11.8
1747	3	21.93	1800	300	7.28	518	0	5.46	11.7
1750	3	—	2800	330	7.25	517	0	5.64	11.7
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 75°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature:

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: S3-28A
Date: 8-14-M

WELL INFORMATION:

0925

Total well depth (feet): 21
- Depth to water in well (feet): 3.86
= Water column (feet):
Screen length (feet): 3

Well diameter (inches): 1 | 2 | 4 CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 Port

Pump intake depth (feet): 19.5 All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: Clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
0912	0	4.20	0	—	7.40	566	4	1.05	11.9
0915	3	4.18	1,000	335	7.37	564	0	0.36	11.9
0918	3	4.17	2,100	365	7.35	564	0	0.26	11.9
0921	3	4.18	3,300	400	7.35	564	0	0.23	11.9
0924	3	—	4,500	400	7.33	563	0	0.23	11.9
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 65°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature:

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 83-28B
Date: 8-14-14
0945

WELL INFORMATION:

Total well depth (feet): 57
- Depth to water in well (feet): 3.79
= Water column (feet):
Screen length (feet): 2
Pump intake depth (feet): 55.5

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump
Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
0932	0	6.65	2000	—	7.68	508	0	0.32	11.7
0935	3	6.51	— ?	—	7.59	511	0	0.21	11.9
0938	3	6.50	3000	335	7.45	520	0	0.18	11.9
0941	3	6.49	3900	300	7.41	522	0	0.17	11.9
0944	3	6.48	4800	300	7.38	524	0	0.16	11.8
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 81°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature:

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 98-245A
Date: 8-14-14
0905

WELL INFORMATION:

Total well depth (feet): 32
- Depth to water in well (feet): 7.14
= Water column (feet):
Screen length (feet): 10

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Pump intake depth (feet): 27 All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
0849	0	—	0	—	7.39	567	4	1.18	11.9
0852	3	7.17	1100	365	7.33	565	3	0.40	11.9
0855	3	7.17	2100	335	7.28	566	3	0.31	11.8
0858	3	7.17	3000	300	7.26	566	2	0.26	11.8
0901	3	—	4200	400	7.30	566	2	0.22	11.7
0904	3	—	5100	300	7.28	565	3	0.21	11.7
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 65°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: [signature]

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 83-21A
Date: 8-14-24
1010

WELL INFORMATION:

Total well depth (feet): 22
- Depth to water in well (feet): 8.46
= Water column (feet):
Screen length (feet): 3

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Pump intake depth (feet): 20.5 All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
0956	0	8.65	0	—	7.57	553	6	1.82	12.0
0959	3	8.62	800	265	7.34	540	5	3.28	12.1
1002	3	8.62	1600	265	7.29	529	2	3.97	12.1
1005	3	8.62	2500	300	7.28	524	2	4.11	12.1
1008	3	—	3400	300	7.29	521	10	3.94	12.1
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 61°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: [signature]

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 83-21B
Date: 8-14-24
1040

WELL INFORMATION:

Total well depth (feet): 47
- Depth to water in well (feet): 8.83
= Water column (feet):
Screen length (feet): 3

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Pump intake depth (feet): 45.5 All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
1027	0	19.23	9,000	—	7.43	563	8	0.29	11.6
1030	3	19.18	9,900	300	7.43	566	6	0.25	11.8
1033	3	19.09	10,800	300	7.41	589	0	0.28	11.8
1036	3	19.04	11,700	300	7.38	571	0	0.30	11.8
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 61°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: R. [illegible]

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: CZ-03
Date: 8-13-14

WELL INFORMATION:

1815

Total well depth (feet): 64
- Depth to water in well (feet): 23.53
= Water column (feet):
Screen length (feet): 5

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Pump intake depth (feet): 61.5

All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
1802	0	23.54	0	—	7.42	598	0	3.10	12.4
1805	3	23.54	900	300	7.36	600	0	1.01	12.4
1808	3	23.54	1700	265	7.37	599	0	0.51	12.3
1811	3	23.54	2500	265	7.36	599	0	0.39	12.3
1814	3	—	3500	335	7.35	601	0	0.33	12.3
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 75°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature:

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: **Prairie Ronde Realty**
Location: **Dowagiac, MI**
Sampling Point: C2-04
Date: 8-13-14

1835

WELL INFORMATION:

Total well depth (feet): 42
- Depth to water in well (feet): 24.11
= Water column (feet):
Screen length (feet): 5

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Pump intake depth (feet): 29.5

All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
1820	0	24.13	0	—	7.34	590	16	0.90	12.1
1823	3	24.13	900	300	7.29	591	21	0.46	12.1
1826	3	24.13	1700	265	7.27	591	32	0.34	12.0
1829	3	—	2500	265	7.26	591	33	0.30	12.0
1832	3	—	3300	265	7.29	591	33	0.28	12.0
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 75°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: R. David Mursch

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 13-224A
Date: 8-14-14
0800

WELL INFORMATION:

Total well depth (feet): 24
- Depth to water in well (feet): 16.24
= Water column (feet):
Screen length (feet): 5

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Pump intake depth (feet): 22 All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
0745	0	16.23	0	—	7.27	400	3	2.44	13.3
0748	3	—	800	265	7.19	395	0	2.11	13.3
0751	3	16.23	1600	265	7.14	387	0	2.20	13.3
0754	3	16.23	2400	265	7.08	382	0	2.32	13.3
0757	3	—	3200	265	7.11	380	0	2.39	13.4
				Criteria Range, ±:	0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: clear, 57°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: [signature]

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 48-224 B
Date: 8/11-12/

0815

WELL INFORMATION:

Total well depth (feet): 42
- Depth to water in well (feet): 15.45
= Water column (feet):
Screen length (feet): 10
Pump intake depth (feet): 37

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump
Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
0802	0	15.50	0	—	7.29	578	7	0.83	12.6
0806	4	15.49	1300	325	7.28	575	2	0.33	12.5
0809	3	15.49	2200	300	7.29	571	1	0.27	12.5
0812	3	15.49	3100	300	7.31	566	0	0.24	12.5
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: clear, 55°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: R. David Mursch

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 06-20
Date: 8-12-09
1530

WELL INFORMATION:

Total well depth (feet): _____
- Depth to water in well (feet): _____
= Water column (feet): _____
Screen length (feet): _____

Well diameter (inches): 1 | 2 | 4 | CMT Port
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65

Pump intake depth (feet): [ ]

All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
1513	0	—	0	—	8.93	200	210	6.50	14.6
1516	3	—	900	300	8.70	187	189	5.92	17.1
1519	3	—	1800	300	8.51	157	162	5.88	13.6
1522	3	—	2800	330	8.33	111	118	5.82	13.4
1525	3	—	3800	330	5.23	1094	71	5.79	13.3
1528	3	—	4,400	300	8.13	88	40	5.73	13.1
1531	3	—	5,100	300	8.06	88	27	5.72	13.1
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 75°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: [signature]

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GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 06-20 / 2
Date: 8-13-14
1545

WELL INFORMATION:

Total well depth (feet): _____
- Depth to water in well (feet): _____
= Water column (feet): _____
Screen length (feet): _____

Well diameter (inches): 1 | 2 | 4 | CMT Port
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65

Pump intake depth (feet): [ ] All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
1535	0	—	0	—	7.90	124	28	8.38	—
1538	3	—	900		8.36	120	8	9.05	12.3
1541	3	—	2000	360	8.48	118	2	9.17	12.3
1544	3	—	3000	330	8.49	118	0	9.12	12.2
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: clear, sunny, 75°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: [signature]

R. David Mursch, P.E.
Geotechnical and Environmental Engineer
104 Rivercliff Drive *Connelly Springs, NC 28612*
phone (828) 234-5906

GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 83-17A
Date: 8-13-14

WELL INFORMATION:

Total well depth (feet): _____
- Depth to water in well (feet): _____
= Water column (feet): _____
Screen length (feet): _____

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Pump intake depth (feet): [ ]

All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: ——

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
			Did	Not Sample - too much					
				Poison Ivy					
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
~~40 - Milliliter VOA~~	~~2~~	~~HCL~~	

GENERAL

Weather: Sunny, 75°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments: _____

Sampler(s)/Signature: [signature]

R. David Mursch, P.E.
Geotechnical and Environmental Engineer
104 Rivercliff Drive *Connelly Springs, NC 28612*
phone (828) 234-5906

GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 83-17B
Date: 8-13-14
1610

WELL INFORMATION:

Total well depth (feet): 43
- Depth to water in well (feet):
= Water column (feet):
Screen length (feet): 3

Pump intake depth (feet): 41.5 All depths are from top of well riser.

Well diameter (inches): 1 2 4 CMT
Volume factor (gallons per foot): 0.01 0.16 0.65 Port

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
1558	0	13.51	0	—	7.58	602	7	0.39	13.0
1601	3	13.18	—	—	7.53	606	3	0.28	13.2
1604	3	13.13	900	300	7.46	609	2	0.25	13.2
1607	3	13.11	1800	300	7.39	610	0	0.22	13.2
			[pre-purged to draw down WL in well for adequate flow rate]						
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 75°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature:

R. David Mursch, P.E.
Geotechnical and Environmental Engineer
104 Rivercliff Drive Connelly Springs, NC 28612
phone (828) 234-5906

GROUNDWATER FIELD SAMPLING REPORT

Site Name: Prairie Ronde Realty
Location: Dowagiac, MI
Sampling Point: 96-203A
Date: 8-14-14
0825

WELL INFORMATION:

Total well depth (feet): 26
- Depth to water in well (feet): 14.43
= Water column (feet):
Screen length (feet): 15

Well diameter (inches): 1 | 2 | 4 | CMT
Volume factor (gallons per foot): 0.01 | 0.16 | 0.65 | Port

Pump intake depth (feet): 21 All depths are from top of well riser.

Purge Method and Materials: Low-flow purging with peristaltic pump

Purge Water Color: clear

FIELD MEASUREMENTS

Measuring Equipment: Horiba U-10, SN 404014

Time	Elapsed Time	Water Depth, ft	Total Volume Purged, ml	Purge Rate, ml/min	pH	Conductivity, µS/cm	Turbidity, NTU	Dissolved oxygen, mg/l	Temperature °C
0822	0	14.47	0	—	7.34	528	0	1.00	13.2
0825	3	14.46	1000	300	7.31	553	0	0.38	13.2
0828	3	14.46	1900	300	7.29	552	0	0.29	13.2
0831	3	—	2800	300	7.25	552	0	0.25	13.2
0834	3	—	3700	300	7.30	551	0	0.23	13.3
			Criteria Range, ±:		0.1	3%	10%	10%	

SAMPLES OBTAINED

CONTAINER TYPE AND VOLUME	NUMBER	PRESERVATIVE	OTHER (FILTERING, ETC.)
40 - Milliliter VOA	2	HCL	

GENERAL

Weather: Sunny, 60°

Sample Handling/Shipment: To Trimatrix Laboratories in Grand Rapids, Michigan

Comments:

Sampler(s)/Signature: [signature]

Microseeps/Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

September 12, 2014

R. David Mursch, P.E.
RDM
4363 River Run Circle
Hickory, NC 28602

RE: **PRAIRIE RONDE REALTY**

Microseeps Workorder: 13226

Dear R. Mursch, P.E.:

Enclosed are the analytical results for sample(s) received by the laboratory on Monday, September 08, 2014. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Robbin Robl 09/12/2014 RW 9/12/14
rrobl@microseeps.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 9

CERTIFICATE OF ANALYSIS

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Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 13226 PRAIRIE RONDE REALTY

Lab ID	Sample ID	Matrix	Date Collected	Date Received
132260001	BLOWER EFFLUENT	Vapor	8/28/2014 10:50	9/8/2014 09:40

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ANALYTICAL RESULTS

Workorder: 13226 PRAIRIE RONDE REALTY

Lab ID: **132260001** Date Received: 9/8/2014 09:40 Matrix: Vapor

Sample ID: **BLOWER EFFLUENT** Date Collected: 8/28/2014 10:50

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM4.02 Vapors		Analytical Method: AM4.02 Vapors								
Vinyl Chloride	**0.14J**	ppmv	1.0	0.095	1			9/9/2014 22:48	SL	
1,1-Dichloroethene	**0.0010U**	ppmv	0.010	0.0010	1			9/9/2014 22:48	SL	
Methylene Chloride	**0.19U**	ppmv	2.0	0.19	1			9/9/2014 22:48	SL	
trans-1,2-Dichloroethene	**0.0080U**	ppmv	0.010	0.0080	1			9/9/2014 22:48	SL	
1,1-Dichloroethane	**0.0040U**	ppmv	0.020	0.0040	1			9/9/2014 22:48	SL	
cis-1,2-Dichloroethene	**0.37**	ppmv	0.020	0.0070	1			9/9/2014 22:48	SL	
Chloroform	**0.0078**	ppmv	0.0050	0.0010	1			9/9/2014 22:48	SL	
1,1,1-Trichloroethane	**0.045**	ppmv	0.0050	0.0010	1			9/9/2014 22:48	SL	
Carbon Tetrachloride	**0.0010U**	ppmv	0.0050	0.0010	1			9/9/2014 22:48	SL	
Trichloroethene	**0.86**	ppmv	0.010	0.0010	1			9/9/2014 22:48	SL	
Tetrachloroethene	**0.0022J**	ppmv	0.010	0.0010	1			9/9/2014 22:48	SL	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 13226 PRAIRIE RONDE REALTY

DEFINITIONS/QUALIFIERS

Disclaimer : The Pennsylvania Department of Environmental Protection (PADEP) has decided to no longer recognize analyses that do not produce data for primary compliance, for NELAP accreditation. The methods affected by this decision are AM20GAx, AM21G, SW846 7199 and AM4.02. The laboratory shall continue to administer the NELAP/TNI standard requirements in the performance of these methods.

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).

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QUALITY CONTROL DATA

Workorder: 13226 PRAIRIE RONDE REALTY

QC Batch: VAP/1604 Analysis Method: AM4.02 Vapors

QC Batch Method: AM4.02 Vapors

Associated Lab Samples: 132260001

METHOD BLANK: 30148

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
1,1-Dichloroethene	ppmv	0.0010U	0.0010	
trans-1,2-Dichloroethene	ppmv	0.0080U	0.0080	
1,1-Dichloroethane	ppmv	0.0040U	0.0040	
cis-1,2-Dichloroethene	ppmv	0.0070U	0.0070	
Chloroform	ppmv	0.0010U	0.0010	
1,1,1-Trichloroethane	ppmv	0.0010U	0.0010	
Carbon Tetrachloride	ppmv	0.0010U	0.0010	
Trichloroethene	ppmv	0.0010U	0.0010	
Tetrachloroethene	ppmv	0.0010U	0.0010	

METHOD BLANK: 30149

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Vinyl Chloride	ppmv	0.095U	0.095	
Methylene Chloride	ppmv	0.19U	0.19	

LABORATORY CONTROL SAMPLE & LCSD: 30150 30152

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
1,1-Dichloroethene	ppmv	0.65	0.71	0.71	110	110	75-125	0	20	
trans-1,2-Dichloroethene	ppmv	0.65	0.69	0.70	106	107	75-125	0.94	20	
1,1-Dichloroethane	ppmv	0.64	0.73	0.71	115	110	75-125	4.4	20	
cis-1,2-Dichloroethene	ppmv		0.0070U	0.0070U						
Chloroform	ppmv	0.53	0.58	0.58	109	109	75-125	0	20	
1,1,1-Trichloroethane	ppmv	0.47	0.54	0.54	114	114	75-125	0	20	
Carbon Tetrachloride	ppmv	0.41	0.51	0.51	124	123	75-125	0.81	20	
Trichloroethene	ppmv	0.48	0.51	0.51	107	106	75-125	0.94	20	
Tetrachloroethene	ppmv		0.0010U	0.0010U						

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QUALITY CONTROL DATA

Workorder: 13226 PRAIRIE RONDE REALTY

LABORATORY CONTROL SAMPLE & LCSD: 30151 30153

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Vinyl Chloride	ppmv		0.095U	0.095U						
Methylene Chloride	ppmv		0.19U	0.19U						

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 13226 PRAIRIE RONDE REALTY

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
132260001	BLOWER EFFLUENT			AM4.02 Vapors	VAP/1604

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Microseeps Lab. Proj. # 13226

CHAIN - OF - CUSTODY RECORD

Microseeps COC cont. #

Phone: (412) 826-5245 | Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15238 | Fax No. : (412) 826-3433

Company : Prairie Ronde Realty Company

Co. Address : 415 E Prairie Ronde St., Dowagiac, MI 49047

Phone # : 269-782-2141 Fax # :

Proj. Manager : DAVID MUSCH

Proj. Name/Number :

Sampler's signature :

Cooler Temp.

Results to :

Invoice to :

Sample ID	Sample Description	Sample Type Water	Vapor	Solid	Date	Time	# Bottles	Chlorinated VOCs!										Remarks :
Blower Effluent			✓		8-28-14	10:50		X										
Blower Effluent			✓		8-28-14	10:55		X										

Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
US Postal		8-28-14		[signature]	PTES	9.5.14	1200
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Accompany Samples YELLOW COPY : Laboratory File PINK COPY : Submitter

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

September 22, 2014

R. David Mursch
Prairie Ronde Realty Co.
415 E. Prairie Ronde St.
New Baltimore, MI 48047

RE: Project: PRR
Pace Project No.: 10280641

Dear R. Mursch:
Enclosed are the analytical results for sample(s) received by the laboratory on September 09, 2014. 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,

Carolynne Trout

Carolynne Trout
carolynne.trout@pacelabs.com
Project Manager

Enclosures

cc: Brian DeLong, Prairie Ronde Realty

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

CERTIFICATIONS

Project: PRR
Pace Project No.: 10280641

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #: Pace
Georgia Certification #: 959
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
Wisconsin Certification #: 999407970
West Virginia Certification #: 382
West Virginia DHHR #:9952C

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

SAMPLE SUMMARY

Project: PRR
Pace Project No.: 10280641

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10280641001	**NREC 1 (VMP-17)**	Air	09/04/14 11:08	09/09/14 09:45
10280641002	**NREC 1a (IA)**	Air	09/04/14 11:07	09/09/14 09:45
10280641003	**NREC 2 (VMP-18)**	Air	09/04/14 11:10	09/09/14 09:45
10280641004	**NREC 2a (IA)**	Air	09/04/14 11:11	09/09/14 09:45
10280641005	**LL-NE (IA)**	Air	09/04/14 11:15	09/09/14 09:45
10280641006	**LL-SW (IA)**	Air	09/04/14 11:18	09/09/14 09:45
10280641007	**SREC 1 (VMP-15)**	Air	09/04/14 11:21	09/09/14 09:45
10280641008	**SREC 1a (IA)**	Air	09/04/14 11:20	09/09/14 09:45
10280641009	**QT (VMP-16)**	Air	09/04/14 11:24	09/09/14 09:45
10280641010	**QT Office (IA)**	Air	09/04/14 11:25	09/09/14 09:45
10280641011	**MP (VMP-14)**	Air	09/04/14 11:29	09/09/14 09:45
10280641012	**MP2 (IA)**	Air	09/04/14 11:28	09/09/14 09:45
10280641013	**VH (VMP-13)**	Air	09/04/14 11:34	09/09/14 09:45
10280641014	**VH2 (IA)**	Air	09/04/14 11:33	09/09/14 09:45
10280641015	**JMT (VMP-12)**	Air	09/04/14 11:40	09/09/14 09:45
10280641016	**JMT 2 (IA)**	Air	09/04/14 11:39	09/09/14 09:45
10280641017	**PRR Office (VMP-11)**	Air	09/04/14 11:46	09/09/14 09:45
10280641018	**PRR Office (IA)**	Air	09/04/14 11:49	09/09/14 09:45
10280641019	**Unused Can#2312**	Air		09/09/14 09:45

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(612)607-1700

SAMPLE ANALYTE COUNT

Project: PRR
Pace Project No.: 10280641

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10280641001	**NREC 1 (VMP-17)**	TO-15	MJL	8
10280641002	**NREC 1a (IA)**	TO-15	MJL	8
10280641003	**NREC 2 (VMP-18)**	TO-15	MJL	8
10280641004	**NREC 2a (IA)**	TO-15	MJL	8
10280641005	**LL-NE (IA)**	TO-15	MJL	8
10280641006	**LL-SW (IA)**	TO-15	MJL	8
10280641007	**SREC 1 (VMP-15)**	TO-15	MJL	8
10280641008	**SREC 1a (IA)**	TO-15	MJL	8
10280641009	**QT (VMP-16)**	TO-15	MJL	8
10280641010	**QT Office (IA)**	TO-15	MJL	8
10280641011	**MP (VMP-14)**	TO-15	MJL	8
10280641012	**MP2 (IA)**	TO-15	MJL	8
10280641013	**VH (VMP-13)**	TO-15	MJL	8
10280641014	**VH2 (IA)**	TO-15	MJL	8
10280641015	**JMT (VMP-12)**	TO-15	MJL	8
10280641016	**JMT 2 (IA)**	TO-15	MJL	8
10280641017	**PRR Office (VMP-11)**	TO-15	MJL	8
10280641018	**PRR Office (IA)**	TO-15	MJL	8

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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: NREC 1 (VMP-17) **Lab ID: 10280641001** Collected: 09/04/14 11:08 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.84	1.55		09/18/14 20:07	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.55		09/18/14 20:07	75-34-3	
cis-1,2-Dichloroethene	**6.3**	ug/m3	1.3	1.55		09/18/14 20:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		09/18/14 20:07	156-60-5	
Tetrachloroethene	**76.7**	ug/m3	1.1	1.55		09/18/14 20:07	127-18-4	
1,1,1-Trichloroethane	**13.5**	ug/m3	1.7	1.55		09/18/14 20:07	71-55-6	
Trichloroethene	**258**	ug/m3	1.7	1.55		09/18/14 20:07	79-01-6	
Vinyl chloride	ND	ug/m3	0.40	1.55		09/18/14 20:07	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: NREC 1a (IA) **Lab ID: 10280641002** Collected: 09/04/14 11:07 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.84	1.55		09/17/14 17:38	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.55		09/17/14 17:38	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		09/17/14 17:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		09/17/14 17:38	156-60-5	
Tetrachloroethene	**1.4**	ug/m3	1.1	1.55		09/17/14 17:38	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.55		09/17/14 17:38	71-55-6	
Trichloroethene	**2.5**	ug/m3	1.7	1.55		09/17/14 17:38	79-01-6	
Vinyl chloride	ND	ug/m3	0.40	1.55		09/17/14 17:38	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: NREC 2 (VMP-18) **Lab ID: 10280641003** Collected: 09/04/14 11:10 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.87	1.61		09/17/14 18:03	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/17/14 18:03	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/17/14 18:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/17/14 18:03	156-60-5	
Tetrachloroethene	**3.7**	ug/m3	1.1	1.61		09/17/14 18:03	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.8	1.61		09/17/14 18:03	71-55-6	
Trichloroethene	**3.1**	ug/m3	1.8	1.61		09/17/14 18:03	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/17/14 18:03	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: NREC 2a (IA) **Lab ID: 10280641004** Collected: 09/04/14 11:11 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.87	1.61		09/18/14 09:35	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/18/14 09:35	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 09:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 09:35	156-60-5	
Tetrachloroethene	ND	ug/m3	1.1	1.61		09/18/14 09:35	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.8	1.61		09/18/14 09:35	71-55-6	
Trichloroethene	ND	ug/m3	1.8	1.61		09/18/14 09:35	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/18/14 09:35	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: LL-NE (IA) **Lab ID: 10280641005** Collected: 09/04/14 11:15 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.87	1.61		09/18/14 09:59	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/18/14 09:59	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 09:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 09:59	156-60-5	
Tetrachloroethene	ND	ug/m3	1.1	1.61		09/18/14 09:59	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.8	1.61		09/18/14 09:59	71-55-6	
Trichloroethene	ND	ug/m3	1.8	1.61		09/18/14 09:59	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/18/14 09:59	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: LL-SW (IA) **Lab ID: 10280641006** Collected: 09/04/14 11:18 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.84	1.55		09/18/14 10:24	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.55		09/18/14 10:24	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		09/18/14 10:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		09/18/14 10:24	156-60-5	
Tetrachloroethene	ND	ug/m3	1.1	1.55		09/18/14 10:24	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.55		09/18/14 10:24	71-55-6	
Trichloroethene	ND	ug/m3	1.7	1.55		09/18/14 10:24	79-01-6	
Vinyl chloride	ND	ug/m3	0.40	1.55		09/18/14 10:24	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: SREC 1 (VMP-15) **Lab ID: 10280641007** Collected: 09/04/14 11:21 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.84	1.55		09/18/14 10:49	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.55		09/18/14 10:49	75-34-3	
cis-1,2-Dichloroethene	**2.5**	ug/m3	1.3	1.55		09/18/14 10:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		09/18/14 10:49	156-60-5	
Tetrachloroethene	**12.8**	ug/m3	1.1	1.55		09/18/14 10:49	127-18-4	
1,1,1-Trichloroethane	**2.5**	ug/m3	1.7	1.55		09/18/14 10:49	71-55-6	
Trichloroethene	**767**	ug/m3	33.9	31		09/18/14 15:51	79-01-6	IS
Vinyl chloride	ND	ug/m3	0.40	1.55		09/18/14 10:49	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: SREC 1a (IA) **Lab ID: 10280641008** Collected: 09/04/14 11:20 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.87	1.61		09/18/14 20:31	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/18/14 20:31	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 20:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 20:31	156-60-5	
Tetrachloroethene	ND	ug/m3	1.1	1.61		09/18/14 20:31	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.8	1.61		09/18/14 20:31	71-55-6	
Trichloroethene	**2.6**	ug/m3	1.8	1.61		09/18/14 20:31	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/18/14 20:31	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: QT (VMP-16) **Lab ID: 10280641009** Collected: 09/04/14 11:24 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	**3.9**	ug/m3	0.87	1.61		09/18/14 20:56	75-00-3	
1,1-Dichloroethane	**57.7**	ug/m3	1.3	1.61		09/18/14 20:56	75-34-3	
cis-1,2-Dichloroethene	**130**	ug/m3	1.3	1.61		09/18/14 20:56	156-59-2	
trans-1,2-Dichloroethene	**8.1**	ug/m3	1.3	1.61		09/18/14 20:56	156-60-5	
Tetrachloroethene	**153**	ug/m3	1.1	1.61		09/18/14 20:56	127-18-4	
1,1,1-Trichloroethane	**989**	ug/m3	89.4	80.5		09/19/14 09:35	71-55-6	
Trichloroethene	**5020**	ug/m3	87.9	80.5		09/19/14 09:35	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/18/14 20:56	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: QT Office (IA) **Lab ID: 10280641010** Collected: 09/04/14 11:25 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.87	1.61		09/18/14 21:21	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/18/14 21:21	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 21:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 21:21	156-60-5	
Tetrachloroethene	**6.2**	ug/m3	1.1	1.61		09/18/14 21:21	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.8	1.61		09/19/14 14:53	71-55-6	
Trichloroethene	**1.8**	ug/m3	1.8	1.61		09/19/14 14:53	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/18/14 21:21	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: MP (VMP-14) **Lab ID: 10280641011** Collected: 09/04/14 11:29 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.87	1.61		09/18/14 21:45	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/18/14 21:45	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 21:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 21:45	156-60-5	
Tetrachloroethene	**4.4**	ug/m3	1.1	1.61		09/18/14 21:45	127-18-4	
1,1,1-Trichloroethane	**4.2**	ug/m3	1.8	1.61		09/18/14 21:45	71-55-6	
Trichloroethene	**731**	ug/m3	35.2	32.2		09/19/14 10:19	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/18/14 21:45	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: MP2 (IA) **Lab ID: 10280641012** Collected: 09/04/14 11:28 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.87	1.61		09/18/14 22:10	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/18/14 22:10	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 22:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 22:10	156-60-5	
Tetrachloroethene	ND	ug/m3	1.1	1.61		09/18/14 22:10	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.8	1.61		09/18/14 22:10	71-55-6	
Trichloroethene	**3.3**	ug/m3	1.8	1.61		09/19/14 15:17	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/18/14 22:10	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: VH (VMP-13) **Lab ID: 10280641013** Collected: 09/04/14 11:34 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.87	1.61		09/18/14 22:34	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/18/14 22:34	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 22:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 22:34	156-60-5	
Tetrachloroethene	**2.2**	ug/m3	1.1	1.61		09/18/14 22:34	127-18-4	
1,1,1-Trichloroethane	**91.1**	ug/m3	1.8	1.61		09/18/14 22:34	71-55-6	
Trichloroethene	**2400**	ug/m3	87.9	80.5		09/19/14 09:57	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/18/14 22:34	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: VH2 (IA) **Lab ID: 10280641014** Collected: 09/04/14 11:33 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.84	1.55		09/18/14 22:59	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.55		09/18/14 22:59	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		09/18/14 22:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.55		09/18/14 22:59	156-60-5	
Tetrachloroethene	ND	ug/m3	1.1	1.55		09/18/14 22:59	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.7	1.55		09/18/14 22:59	71-55-6	
Trichloroethene	**2.9**	ug/m3	1.7	1.55		09/19/14 14:04	79-01-6	
Vinyl chloride	ND	ug/m3	0.40	1.55		09/18/14 22:59	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: JMT (VMP-12) **Lab ID: 10280641015** Collected: 09/04/14 11:40 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.87	1.61		09/18/14 23:23	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/18/14 23:23	75-34-3	
cis-1,2-Dichloroethene	**1.4**	ug/m3	1.3	1.61		09/18/14 23:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/18/14 23:23	156-60-5	
Tetrachloroethene	**20.2**	ug/m3	1.1	1.61		09/18/14 23:23	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	1.8	1.61		09/18/14 23:23	71-55-6	
Trichloroethene	**33.8**	ug/m3	1.8	1.61		09/18/14 23:23	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/18/14 23:23	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: JMT 2 (IA) **Lab ID: 10280641016** Collected: 09/04/14 11:39 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	1.0	1.92		09/18/14 23:48	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.6	1.92		09/18/14 23:48	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.6	1.92		09/18/14 23:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.6	1.92		09/18/14 23:48	156-60-5	
Tetrachloroethene	ND	ug/m3	1.3	1.92		09/18/14 23:48	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	2.1	1.92		09/18/14 23:48	71-55-6	
Trichloroethene	**4.1**	ug/m3	2.1	1.92		09/18/14 23:48	79-01-6	
Vinyl chloride	ND	ug/m3	0.50	1.92		09/18/14 23:48	75-01-4	

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

ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: PRR Office (VMP-11) **Lab ID: 10280641017** Collected: 09/04/14 11:46 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	0.87	1.61		09/19/14 00:12	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.3	1.61		09/19/14 00:12	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/19/14 00:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.3	1.61		09/19/14 00:12	156-60-5	
Tetrachloroethene	**9.0**	ug/m3	1.1	1.61		09/19/14 00:12	127-18-4	
1,1,1-Trichloroethane	**12.3**	ug/m3	1.8	1.61		09/19/14 00:12	71-55-6	
Trichloroethene	**300**	ug/m3	17.6	16.1		09/19/14 10:44	79-01-6	
Vinyl chloride	ND	ug/m3	0.42	1.61		09/19/14 00:12	75-01-4	

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ANALYTICAL RESULTS

Project: PRR
Pace Project No.: 10280641

Sample: PRR Office (IA) **Lab ID: 10280641018** Collected: 09/04/14 11:49 Received: 09/09/14 09:45 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Chloroethane	ND	ug/m3	1.3	2.37		09/19/14 00:37	75-00-3	
1,1-Dichloroethane	ND	ug/m3	1.9	2.37		09/19/14 00:37	75-34-3	
cis-1,2-Dichloroethene	ND	ug/m3	1.9	2.37		09/19/14 00:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.9	2.37		09/19/14 00:37	156-60-5	
Tetrachloroethene	ND	ug/m3	1.6	2.37		09/19/14 00:37	127-18-4	
1,1,1-Trichloroethane	ND	ug/m3	2.6	2.37		09/19/14 00:37	71-55-6	
Trichloroethene	**3.0**	ug/m3	2.6	2.37		09/19/14 14:28	79-01-6	
Vinyl chloride	ND	ug/m3	0.62	2.37		09/19/14 00:37	75-01-4	

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QUALITY CONTROL DATA

Project: PRR
Pace Project No.: 10280641

QC Batch: AIR/21344 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10280641002, 10280641003, 10280641004, 10280641005, 10280641006, 10280641007

METHOD BLANK: 1792053 Matrix: Air
Associated Lab Samples: 10280641002, 10280641003, 10280641004, 10280641005, 10280641006, 10280641007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	09/17/14 14:40	
1,1-Dichloroethane	ug/m3	ND	0.82	09/17/14 14:40	
Chloroethane	ug/m3	ND	0.54	09/17/14 14:40	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	09/17/14 14:40	
Tetrachloroethene	ug/m3	ND	0.69	09/17/14 14:40	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	09/17/14 14:40	
Trichloroethene	ug/m3	ND	1.1	09/17/14 14:40	
Vinyl chloride	ug/m3	ND	0.26	09/17/14 14:40	

LABORATORY CONTROL SAMPLE: 1792054

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	60.5	109	72-128	
1,1-Dichloroethane	ug/m3	41.2	39.5	96	68-128	
Chloroethane	ug/m3	26.8	25.1	94	69-128	
cis-1,2-Dichloroethene	ug/m3	40.3	37.0	92	71-135	
Tetrachloroethene	ug/m3	69	58.7	85	69-136	
trans-1,2-Dichloroethene	ug/m3	40.3	36.4	90	70-131	
Trichloroethene	ug/m3	54.6	48.2	88	70-135	
Vinyl chloride	ug/m3	26	24.6	95	69-132	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: PRR
Pace Project No.: 10280641

QC Batch: AIR/21353 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10280641001, 10280641008, 10280641009, 10280641010, 10280641011, 10280641012, 10280641013, 10280641014, 10280641015, 10280641016, 10280641017, 10280641018

METHOD BLANK: 1793148 Matrix: Air
Associated Lab Samples: 10280641001, 10280641008, 10280641009, 10280641010, 10280641011, 10280641012, 10280641013, 10280641014, 10280641015, 10280641016, 10280641017, 10280641018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	09/18/14 13:42	
1,1-Dichloroethane	ug/m3	ND	0.82	09/18/14 13:42	
Chloroethane	ug/m3	ND	0.54	09/18/14 13:42	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	09/18/14 13:42	
Tetrachloroethene	ug/m3	ND	0.69	09/18/14 13:42	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	09/18/14 13:42	
Trichloroethene	ug/m3	ND	1.1	09/18/14 13:42	
Vinyl chloride	ug/m3	ND	0.26	09/18/14 13:42	

LABORATORY CONTROL SAMPLE: 1793149

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	56.0	101	72-128	
1,1-Dichloroethane	ug/m3	41.2	36.9	90	68-128	
Chloroethane	ug/m3	26.8	22.6	84	69-128	
cis-1,2-Dichloroethene	ug/m3	40.3	32.8	81	71-135	
Tetrachloroethene	ug/m3	69	52.4	76	69-136	
trans-1,2-Dichloroethene	ug/m3	40.3	32.6	81	70-131	
Trichloroethene	ug/m3	54.6	43.6	80	70-135	
Vinyl chloride	ug/m3	26	23.6	91	69-132	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: PRR
Pace Project No.: 10280641

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.

PQL - Practical Quantitation 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: 10280641007

[1] The internal standard recoveries associated with this sample exceed the lower control limit. The reported results should be considered estimated values.

ANALYTE QUALIFIERS

IS The internal standard recovery associated with this result exceeds the lower control limit. The reported result should be considered an estimated value.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PRR
Pace Project No.: 10280641

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10280641001	**NREC 1 (VMP-17)**	TO-15	AIR/21353		
10280641002	**NREC 1a (IA)**	TO-15	AIR/21344		
10280641003	**NREC 2 (VMP-18)**	TO-15	AIR/21344		
10280641004	**NREC 2a (IA)**	TO-15	AIR/21344		
10280641005	**LL-NE (IA)**	TO-15	AIR/21344		
10280641006	**LL-SW (IA)**	TO-15	AIR/21344		
10280641007	**SREC 1 (VMP-15)**	TO-15	AIR/21344		
10280641008	**SREC 1a (IA)**	TO-15	AIR/21353		
10280641009	**QT (VMP-16)**	TO-15	AIR/21353		
10280641010	**QT Office (IA)**	TO-15	AIR/21353		
10280641011	**MP (VMP-14)**	TO-15	AIR/21353		
10280641012	**MP2 (IA)**	TO-15	AIR/21353		
10280641013	**VH (VMP-13)**	TO-15	AIR/21353		
10280641014	**VH2 (IA)**	TO-15	AIR/21353		
10280641015	**JMT (VMP-12)**	TO-15	AIR/21353		
10280641016	**JMT 2 (IA)**	TO-15	AIR/21353		
10280641017	**PRR Office (VMP-11)**	TO-15	AIR/21353		
10280641018	**PRR Office (IA)**	TO-15	AIR/21353		

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US EPA ARCHIVE DOCUMENT

10280641

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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.

09824

Section A Required Client Information:

Company: Prairie Ronde Realty Co
Address: 415 E Prairie Ronde ST
Dowagiac MI 49047
Email To: davidmursch@earthlink.net
Phone: 269-782-2441 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: R. DAVID MURSCH
Copy To: Brian DeLong
Purchase Order No.: NA
Project Name: PRR
Project Number: NA

Section C Invoice Information:

Attention: Brian DeLong
Company Name: Prairie Ronde Realty Co.
Address: 415 E Prairie Ronde ST, Dowagiac, MI. 49047
Pace Quote Reference:
Pace Project Manager/Sales Rep: Carolynne TROUT
Pace Profile #:

Program: UST / Superfund / Emissions / Clean Air Act / ✓ Voluntary Clean Up / Dry Clean / RCRA / Other

Location of Sampling by State: MI

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	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	NRec 1 (VMP-17)			9-3-14	12:16	9-4-14	11:08	-30	-05	2802	0211							X			001
2	NRec 1a (IA)			9-3-14	12:14	9-4-14	11:07	-27	-05	2095	1042							X			002
3	NRec 2 (VMP-18)			9-3-14	12:34	9-4-14	11:10	-30	-05	2800	0125							X			003
4	NRec 2a (IA)			9-3-14	12:22	9-4-14	11:11	-30	-07	2177	0207							X			004
5	LL-NE (IA)			9-3-14	12:36	9-4-14	11:15	-30	-05	2673	0141							X			005
6	LL-SW (IA)			9-3-14	12:38	9-4-14	11:18	-30	-02	954	0233							X			006
7	SRec 1 (VMP-15)			9-3-14	12:42	9-4-14	11:21	-28	-05	2798	0350							X			007
8	SRec 1a (IA)			9-3-14	12:40	9-4-14	11:20	-28	-05	2171	1050							X			008
9	QT (VMP-16)			9-3-14	12:47	9-4-14	11:24	-24	-07	2379	0459							X			009
10	QT office (IA)			9-3-14	12:46	9-4-14	11:25	-28	-05	2065	1046							X			010
11	MP (VMP-14)			9-3-14	12:54	9-4-14	11:29	-28	-05	2799	0348							X			011
12	MP 2 (IA)			9-3-14	12:55	9-4-14	11:28	-29	-04	1270	0766							X			012

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Brian DeLong/PRR	9-5-14		[illegible] Pace	9/9/14	0945

SAMPLE CONDITIONS

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian DeLong

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 9-5-14

ORIGINAL

US EPA ARCHIVE DOCUMENT

Pace Analytical®
www.pacelabs.com

AIR: CHAIN-OF-CUSTODY / Analytical Request Document

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

09825

Section A Required Client Information:

Company: Prairie Ronde Realty Co
Address: 415 E Prairie Ronde ST
Dowagiac MI 49047
Email To: davidmursch@earthlink.net
Phone: 269-782-2141 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: R. David Mursch
Copy To: Brian DeLong
Purchase Order No.: NA
Project Name: PRR
Project Number: NA

Section C Invoice Information:

Attention: Brian DeLong
Company Name: Prairie Ronde Realty Co
Address: 415 E Prairie Ronde St, Dowagiac MI 49047
Pace Quote Reference:
Pace Project Manager/Sales Rep: Carolynne Trout
Pace Profile #:

Program: UST / Superfund / Emissions / Clean Air Act / ✓ Voluntary Clean Up / Dry Clean / RCRA / Other

Location of Sampling by State: MI

Reporting Units: ug/m³ X / 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	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	VH (VMP-13)			9-3-14	1:02	9-4-14	11:34	-28	-05	2801	1028							X			0013
2	VH 2 (IA)			9-3-14	1:00	9-4-14	11:33	-30	-05	2111	1044							X			0014
3	JMT (VMP-12)			9-3-14	1:11	9-4-14	11:40	-25	-06	1274	0364							X			0015
4	JMT 2 (IA)			9-3-14	1:12	9-4-14	11:39	-28	-08	2054	0218							X			0016
5	PRR office (VMP-11)			9-3-14	1:18	9-4-14	11:46	-29	-04	1568	0146							X			0017
6	PRR office (IA)			9-3-14	1:21	9-4-14	11:49	-28	-12	2812	0205							X			0018
7																					019
8																					
9																					
10																					
11																					
12																					

Comments :

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Brian DeLong / PRR	9-5-14		Pace	9/9/14	0945

SAMPLE CONDITIONS

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brian DeLong

SIGNATURE of SAMPLER: [signature] DATE Signed (MM / DD / YY): 9-5-14

ORIGINAL

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 26Dec2013 Page 1 of 1
	Document No.: F-MN-A-106-rev.09	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: Prairie Ponde Realty

Project #: WO#: 10280641

10280641

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

Tracking Number: on other sheet

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 Blank rec:** ☐ Yes ☑ No

Temp. (TO17 and TO13 samples only) (°C): — **Corrected Temp (°C):** — **Thermom. Used:** ☐ B88A912167504 ☐ B88A9132521491 ☐ 72337080 ☐ 80512447

Temp should be above freezing to 6°C **Correction Factor:** — **Date & Initials of Person Examining Contents:** 9/9/14

Type of ice Received ☐ Blue ☐ Wet ☑ None

				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: air can				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
VMP17	2802	0211	VMP14	2799	0348
IA 1a	2095	1042	IA MP2	1270	0766
VMP18	2800	0125	VMP13	2801	1028
IA 2a	2177	0207	IA VH2	2111	1044
IA NE	2673	0141	VMP12	1274	0366
IA SW	0454	0233	IA Jmt	2054	0218
VMP15	2798	0350	VMP11	1568	0146
IA SREC	2171	1050	IA pHill	2812	0205
VMP16	2379	0459	unused	2312	0381
IA QT	2065	1046			

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

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: **Date:** 9/9/14

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)

US EPA ARCHIVE DOCUMENT

Pace Analytical	Document Name: **SCUR Exceptions Form**	Document Revised: 16Apr2012 Page 1 of 1
	Document No.: **F-MN-L-220-Rev.00**	Issuing Authority: Pace Minnesota Quality Office

Workorder #: _____

Issue	Sample ID	Container Type/#
6146 1782 5700		
6146 1782 5673		
6146 1782 5695		
6146 1782 5684		
6146 1782 5710		

US EPA ARCHIVE DOCUMENT

August 28, 2014

Prairie Ronde Realty Company
Attn: Mr. R. David Mursch
104 Rivercliff Drive
Connelly Springs, NC 28612

Project: NCP Dowagiac, MI

Dear Mr. R. David Mursch,

Enclosed is a copy of the laboratory report for the following work order(s) received by TriMatrix Laboratories:

Work Order	**Received**	**Description**
1408279	08/15/2014	Laboratory Services

This report relates only to the sample(s) as received. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP) and/or one of the following certification programs:

ACLASS DoD-ELAP/ISO17025 (#ADE-1542); Arkansas DEP (#88-0730/13-049-0); Florida DEP (#E87622-24); Georgia EPD (#E87622-24); Illinois DEP (#200026/003329); Kansas DPH (#E-10302); Kentucky DEP (#0021); Louisiana DEP (#103068); Michigan DPH (#0034); Minnesota DPH (#491715); New York ELAP (#11776/48855); North Carolina DNRE (#659); Texas CEQ (#T104704495-14-4); Virginia DCLS (#460153/2592); Wisconsin DNR (#999472650); USDA Soil Import Permit (#P330-12-00236).

Any qualification or narration of results, including sample acceptance requirements and test exceptions to the above referenced programs, is presented in the Statement of Data Qualifications and Project Technical Narrative sections of this report. Estimates of analytical uncertainties and certification documents for the test results contained within this report are available upon request.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Gary L. Wood
Project Chemist

US EPA ARCHIVE DOCUMENT

This report shall not be reproduced, except in full, without written authorization of TriMatrix Laboratories, Inc.
Individual sample results relate only to the sample tested.
5560 Corporate Exchange Court SE ♦ Grand Rapids, MI 49512 ♦ 616.975.4500 ♦ Fax 616.942.7463 ♦ www.trimatrixlabs.com

TRIMATRIX LABORATORIES

PROJECT TECHNICAL NARRATIVE(s)

Volatile Organic Compounds by EPA Method 8260B

Narrative: The chemical utilized to preserve this sample has the potential to degrade 2-chloroethyl vinyl ether through polymerization or other rapid chemical reaction.

Analysis: USEPA-8260B

Sample/Analyte:

1408279-01	06-20/1
1408279-02	06-20/2
1408279-03	83-17B
1408279-04	02-02
1408279-05	83-19A
1408279-06	83-19B
1408279-07	05-16
1408279-08	02-03
1408279-09	02-04
1408279-10	06-17/1
1408279-11	06-17/2
1408279-12	05-15
1408279-13	13-224A
1408279-14	98-224B
1408279-15	96-203A
1408279-16	98-245A
1408279-17	83-28A
1408279-18	83-28B
1408279-19	83-21A
1408279-20	83-21B
1408279-21	Trip Blank TM3186

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STATEMENT OF DATA QUALIFICATIONS

Volatile Organic Compounds by EPA Method 8260B

Qualification: The corresponding CCV for this analytical batch had a recovery exceeding the upper control limit of the method. A positive result for this analyte in any associated samples are considered estimated. Non-detectable results are not qualified.

Analysis: USEPA-8260B

Sample/Analyte:			
	1408279-01	06-20/1	2-Chloroethyl Vinyl Ether
	1408279-02	06-20/2	2-Chloroethyl Vinyl Ether
	1408279-03	83-17B	2-Chloroethyl Vinyl Ether
	1408279-04	02-02	2-Chloroethyl Vinyl Ether
	1408279-05	83-19A	2-Chloroethyl Vinyl Ether
	1408279-06	83-19B	2-Chloroethyl Vinyl Ether
	1408279-07	05-16	2-Chloroethyl Vinyl Ether
	1408279-08	02-03	2-Chloroethyl Vinyl Ether
	1408279-09	02-04	2-Chloroethyl Vinyl Ether
	1408279-10	06-17/1	2-Chloroethyl Vinyl Ether
	1408279-12	05-15	2-Chloroethyl Vinyl Ether
	1408279-13	13-224A	2-Chloroethyl Vinyl Ether
	1408279-15	96-203A	2-Chloroethyl Vinyl Ether
	1408279-16	98-245A	2-Chloroethyl Vinyl Ether
	1408279-17	83-28A	2-Chloroethyl Vinyl Ether
	1408279-18	83-28B	2-Chloroethyl Vinyl Ether

Qualification: The MS and/or MSD recovery was outside the laboratory or method control limit.

Analysis: USEPA-8260B

Sample/Analyte:			
	1408279-15	96-203A	Trichloroethene

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**06-20/1**	Sampled:	8/13/14 15:30		
Lab Sample ID:	**1408279-01**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 12:35	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**06-20/1**	Sampled:	8/13/14 15:30		
Lab Sample ID:	**1408279-01**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 12:35	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*103*	*85-118*
1,2-Dichloroethane-d4	*100*	*87-122*
Toluene-d8	*100*	*85-113*
4-Bromofluorobenzene	*97*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**06-20/2**	Sampled:	8/13/14 15:45		
Lab Sample ID:	**1408279-02**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 13:02	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**06-20/2**	Sampled:	8/13/14 15:45		
Lab Sample ID:	**1408279-02**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 13:02	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*103*	*85-118*
1,2-Dichloroethane-d4	*101*	*87-122*
Toluene-d8	*99*	*85-113*
4-Bromofluorobenzene	*98*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-17B**	Sampled:	8/13/14 16:10		
Lab Sample ID:	**1408279-03**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 13:30	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**37**	1.0
156-60-5	trans-1,2-Dichloroethene	**2.0**	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**53**	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-17B**	Sampled:	8/13/14 16:10		
Lab Sample ID:	**1408279-03**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 13:30	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*103*	*85-118*
1,2-Dichloroethane-d4	*101*	*87-122*
Toluene-d8	*99*	*85-113*
4-Bromofluorobenzene	*100*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**02-02**	Sampled:	8/13/14 16:40		
Lab Sample ID:	**1408279-04**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	2	Analyzed:	8/18/14 13:57	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<10	10
71-43-2	Benzene	<2.0	2.0
75-27-4	Bromodichloromethane	<0.50	0.50
75-15-0	Carbon Disulfide	<10	10
56-23-5	Carbon Tetrachloride	<2.0	2.0
108-90-7	Chlorobenzene	<2.0	2.0
*110-75-8	2-Chloroethyl Vinyl Ether	<10	10
67-66-3	Chloroform	<0.50	0.50
74-87-3	Chloromethane	<2.0	2.0
95-50-1	1,2-Dichlorobenzene	<2.0	2.0
106-46-7	1,4-Dichlorobenzene	<2.0	2.0
75-34-3	1,1-Dichloroethane	<2.0	2.0
107-06-2	1,2-Dichloroethane	<2.0	2.0
75-35-4	1,1-Dichloroethene	<2.0	2.0
156-59-2	cis-1,2-Dichloroethene	**11**	2.0
156-60-5	trans-1,2-Dichloroethene	<2.0	2.0
78-87-5	1,2-Dichloropropane	<2.0	2.0
100-41-4	Ethylbenzene	<2.0	2.0
591-78-6	2-Hexanone	<10	10
75-09-2	Methylene Chloride	<2.0	2.0
78-93-3	2-Butanone (MEK)	<10	10
100-42-5	Styrene	<2.0	2.0
79-34-5	1,1,2,2-Tetrachloroethane	<1.0	1.0
127-18-4	Tetrachloroethene	<2.0	2.0
108-88-3	Toluene	<2.0	2.0
71-55-6	1,1,1-Trichloroethane	**6.1**	2.0
79-00-5	1,1,2-Trichloroethane	<2.0	2.0
79-01-6	Trichloroethene	**230**	2.0
75-01-4	Vinyl Chloride	**4.6**	2.0
1330-20-7	Xylene (Total)	<6.0	6.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**02-02**	Sampled:	8/13/14 16:40		
Lab Sample ID:	**1408279-04**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	2	Analyzed:	8/18/14 13:57	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*105*	*85-118*
1,2-Dichloroethane-d4	*103*	*87-122*
Toluene-d8	*100*	*85-113*
4-Bromofluorobenzene	*100*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-19A**	Sampled:	8/13/14 17:25		
Lab Sample ID:	**1408279-05**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 14:24	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**1.3**	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**5.8**	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-19A**	Sampled:	8/13/14 17:25		
Lab Sample ID:	**1408279-05**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 14:24	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*105*	*85-118*
1,2-Dichloroethane-d4	*104*	*87-122*
Toluene-d8	*101*	*85-113*
4-Bromofluorobenzene	*100*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-19B**	Sampled:	8/13/14 17:05		
Lab Sample ID:	**1408279-06**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 14:52	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**30**	1.0
156-60-5	trans-1,2-Dichloroethene	**1.8**	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	**1.1**	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**150**	1.0
75-01-4	Vinyl Chloride	**7.1**	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-19B**	Sampled:	8/13/14 17:05		
Lab Sample ID:	**1408279-06**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 14:52	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*105*	*85-118*
1,2-Dichloroethane-d4	*102*	*87-122*
Toluene-d8	*101*	*85-113*
4-Bromofluorobenzene	*98*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**05-16**	Sampled:	8/13/14 17:55		
Lab Sample ID:	**1408279-07**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 15:19	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**4.1**	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**05-16**	Sampled:	8/13/14 17:55		
Lab Sample ID:	**1408279-07**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 15:19	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*103*	*85-118*
1,2-Dichloroethane-d4	*101*	*87-122*
Toluene-d8	*99*	*85-113*
4-Bromofluorobenzene	*98*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**02-03**	Sampled:	8/13/14 18:15		
Lab Sample ID:	**1408279-08**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 15:46	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**1.7**	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**02-03**	Sampled:	8/13/14 18:15		
Lab Sample ID:	**1408279-08**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 15:46	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*103*	*85-118*
1,2-Dichloroethane-d4	*100*	*87-122*
Toluene-d8	*99*	*85-113*
4-Bromofluorobenzene	*99*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**02-04**	Sampled:	8/13/14 18:35		
Lab Sample ID:	**1408279-09**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 16:14	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**27**	1.0
156-60-5	trans-1,2-Dichloroethene	**5.2**	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**120**	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**02-04**	Sampled:	8/13/14 18:35		
Lab Sample ID:	**1408279-09**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 16:14	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*102*	*85-118*
1,2-Dichloroethane-d4	*100*	*87-122*
Toluene-d8	*98*	*85-113*
4-Bromofluorobenzene	*101*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**06-17/1**	Sampled:	8/14/14 7:00		
Lab Sample ID:	**1408279-10**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 16:41	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**7.0**	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	**1.0**	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	**5.5**	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**120**	1.0
75-01-4	Vinyl Chloride	**12**	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**06-17/1**	Sampled:	8/14/14 7:00		
Lab Sample ID:	**1408279-10**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 16:41	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*103*	*85-118*
1,2-Dichloroethane-d4	*101*	*87-122*
Toluene-d8	*98*	*85-113*
4-Bromofluorobenzene	*99*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**06-17/2**	Sampled:	8/14/14 7:15		
Lab Sample ID:	**1408279-11**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/19/14 9:00	By:	BAG
Dilution Factor:	2.5	Analyzed:	8/19/14 16:09	By:	BAG
QC Batch:	1408544	Analytical Batch:	4H19054		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<12	12
71-43-2	Benzene	<2.5	2.5
75-27-4	Bromodichloromethane	<0.62	0.62
75-15-0	Carbon Disulfide	<12	12
56-23-5	Carbon Tetrachloride	<2.5	2.5
108-90-7	Chlorobenzene	<2.5	2.5
110-75-8	2-Chloroethyl Vinyl Ether	<12	12
67-66-3	Chloroform	<0.62	0.62
74-87-3	Chloromethane	<2.5	2.5
95-50-1	1,2-Dichlorobenzene	<2.5	2.5
106-46-7	1,4-Dichlorobenzene	<2.5	2.5
75-34-3	1,1-Dichloroethane	<2.5	2.5
107-06-2	1,2-Dichloroethane	<2.5	2.5
75-35-4	1,1-Dichloroethene	<2.5	2.5
156-59-2	cis-1,2-Dichloroethene	**33**	2.5
156-60-5	trans-1,2-Dichloroethene	<2.5	2.5
78-87-5	1,2-Dichloropropane	<2.5	2.5
100-41-4	Ethylbenzene	<2.5	2.5
591-78-6	2-Hexanone	<12	12
75-09-2	Methylene Chloride	**6.4**	2.5
78-93-3	2-Butanone (MEK)	<12	12
100-42-5	Styrene	<2.5	2.5
79-34-5	1,1,2,2-Tetrachloroethane	<1.2	1.2
127-18-4	Tetrachloroethene	<2.5	2.5
108-88-3	Toluene	<2.5	2.5
71-55-6	1,1,1-Trichloroethane	**38**	2.5
79-00-5	1,1,2-Trichloroethane	<2.5	2.5
79-01-6	Trichloroethene	**330**	2.5
75-01-4	Vinyl Chloride	**5.4**	2.5
1330-20-7	Xylene (Total)	<7.5	7.5

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**06-17/2**	Sampled:	8/14/14 7:15		
Lab Sample ID:	**1408279-11**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/19/14 9:00	By:	BAG
Dilution Factor:	2.5	Analyzed:	8/19/14 16:09	By:	BAG
QC Batch:	1408544	Analytical Batch:	4H19054		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*105*	*85-118*
1,2-Dichloroethane-d4	*102*	*87-122*
Toluene-d8	*100*	*85-113*
4-Bromofluorobenzene	*102*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**05-15**	Sampled:	8/14/14 7:30		
Lab Sample ID:	**1408279-12**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 17:37	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	**0.99**	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**1.9**	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**4.2**	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**05-15**	Sampled:	8/14/14 7:30		
Lab Sample ID:	**1408279-12**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 17:37	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*103*	*85-118*
1,2-Dichloroethane-d4	*101*	*87-122*
Toluene-d8	*99*	*85-113*
4-Bromofluorobenzene	*100*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**13-224A**	Sampled:	8/14/14 8:00		
Lab Sample ID:	**1408279-13**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 20:20	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**4.6**	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**14**	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**13-224A**	Sampled:	8/14/14 8:00		
Lab Sample ID:	**1408279-13**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 20:20	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*105*	*85-118*
1,2-Dichloroethane-d4	*102*	*87-122*
Toluene-d8	*100*	*85-113*
4-Bromofluorobenzene	*100*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**98-224B**	Sampled:	8/14/14 8:15		
Lab Sample ID:	**1408279-14**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/19/14 9:00	By:	BAG
Dilution Factor:	2	Analyzed:	8/19/14 16:36	By:	BAG
QC Batch:	1408544	Analytical Batch:	4H19054		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<10	10
71-43-2	Benzene	<2.0	2.0
75-27-4	Bromodichloromethane	<0.50	0.50
75-15-0	Carbon Disulfide	<10	10
56-23-5	Carbon Tetrachloride	<2.0	2.0
108-90-7	Chlorobenzene	<2.0	2.0
110-75-8	2-Chloroethyl Vinyl Ether	<10	10
67-66-3	Chloroform	<0.50	0.50
74-87-3	Chloromethane	<2.0	2.0
95-50-1	1,2-Dichlorobenzene	<2.0	2.0
106-46-7	1,4-Dichlorobenzene	<2.0	2.0
75-34-3	1,1-Dichloroethane	<2.0	2.0
107-06-2	1,2-Dichloroethane	<2.0	2.0
75-35-4	1,1-Dichloroethene	<2.0	2.0
156-59-2	cis-1,2-Dichloroethene	**17**	2.0
156-60-5	trans-1,2-Dichloroethene	**2.3**	2.0
78-87-5	1,2-Dichloropropane	<2.0	2.0
100-41-4	Ethylbenzene	<2.0	2.0
591-78-6	2-Hexanone	<10	10
75-09-2	Methylene Chloride	<2.0	2.0
78-93-3	2-Butanone (MEK)	<10	10
100-42-5	Styrene	<2.0	2.0
79-34-5	1,1,2,2-Tetrachloroethane	<1.0	1.0
127-18-4	Tetrachloroethene	<2.0	2.0
108-88-3	Toluene	<2.0	2.0
71-55-6	1,1,1-Trichloroethane	<2.0	2.0
79-00-5	1,1,2-Trichloroethane	<2.0	2.0
79-01-6	Trichloroethene	**210**	2.0
75-01-4	Vinyl Chloride	<2.0	2.0
1330-20-7	Xylene (Total)	<6.0	6.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**98-224B**	Sampled:	8/14/14 8:15		
Lab Sample ID:	**1408279-14**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/19/14 9:00	By:	BAG
Dilution Factor:	2	Analyzed:	8/19/14 16:36	By:	BAG
QC Batch:	1408544	Analytical Batch:	4H19054		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*104*	*85-118*
1,2-Dichloroethane-d4	*102*	*87-122*
Toluene-d8	*100*	*85-113*
4-Bromofluorobenzene	*98*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**96-203A**	Sampled:	8/14/14 8:35		
Lab Sample ID:	**1408279-15**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	5	Analyzed:	8/18/14 18:31	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<25	25
71-43-2	Benzene	<5.0	5.0
75-27-4	Bromodichloromethane	<1.2	1.2
75-15-0	Carbon Disulfide	<25	25
56-23-5	Carbon Tetrachloride	<5.0	5.0
108-90-7	Chlorobenzene	<5.0	5.0
*110-75-8	2-Chloroethyl Vinyl Ether	<25	25
67-66-3	Chloroform	<1.2	1.2
74-87-3	Chloromethane	<5.0	5.0
95-50-1	1,2-Dichlorobenzene	<5.0	5.0
106-46-7	1,4-Dichlorobenzene	<5.0	5.0
75-34-3	1,1-Dichloroethane	<5.0	5.0
107-06-2	1,2-Dichloroethane	<5.0	5.0
75-35-4	1,1-Dichloroethene	<5.0	5.0
156-59-2	cis-1,2-Dichloroethene	**37**	5.0
156-60-5	trans-1,2-Dichloroethene	<5.0	5.0
78-87-5	1,2-Dichloropropane	<5.0	5.0
100-41-4	Ethylbenzene	<5.0	5.0
591-78-6	2-Hexanone	<25	25
75-09-2	Methylene Chloride	<5.0	5.0
78-93-3	2-Butanone (MEK)	<25	25
100-42-5	Styrene	<5.0	5.0
79-34-5	1,1,2,2-Tetrachloroethane	<2.5	2.5
127-18-4	Tetrachloroethene	<5.0	5.0
108-88-3	Toluene	<5.0	5.0
71-55-6	1,1,1-Trichloroethane	<5.0	5.0
79-00-5	1,1,2-Trichloroethane	<5.0	5.0
*79-01-6	Trichloroethene	**580**	5.0
75-01-4	Vinyl Chloride	<5.0	5.0
1330-20-7	Xylene (Total)	<15	15

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**96-203A**	Sampled:	8/14/14 8:35		
Lab Sample ID:	**1408279-15**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	5	Analyzed:	8/18/14 18:31	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*103*	*85-118*
1,2-Dichloroethane-d4	*101*	*87-122*
Toluene-d8	*100*	*85-113*
4-Bromofluorobenzene	*99*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**98-245A**	Sampled:	8/14/14 9:05		
Lab Sample ID:	**1408279-16**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	2.5	Analyzed:	8/18/14 18:59	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<12	12
71-43-2	Benzene	<2.5	2.5
75-27-4	Bromodichloromethane	<0.62	0.62
75-15-0	Carbon Disulfide	<12	12
56-23-5	Carbon Tetrachloride	<2.5	2.5
108-90-7	Chlorobenzene	<2.5	2.5
*110-75-8	2-Chloroethyl Vinyl Ether	<12	12
67-66-3	Chloroform	<0.62	0.62
74-87-3	Chloromethane	<2.5	2.5
95-50-1	1,2-Dichlorobenzene	<2.5	2.5
106-46-7	1,4-Dichlorobenzene	<2.5	2.5
75-34-3	1,1-Dichloroethane	<2.5	2.5
107-06-2	1,2-Dichloroethane	<2.5	2.5
75-35-4	1,1-Dichloroethene	<2.5	2.5
156-59-2	cis-1,2-Dichloroethene	**16**	2.5
156-60-5	trans-1,2-Dichloroethene	**2.5**	2.5
78-87-5	1,2-Dichloropropane	<2.5	2.5
100-41-4	Ethylbenzene	<2.5	2.5
591-78-6	2-Hexanone	<12	12
75-09-2	Methylene Chloride	**3.3**	2.5
78-93-3	2-Butanone (MEK)	<12	12
100-42-5	Styrene	<2.5	2.5
79-34-5	1,1,2,2-Tetrachloroethane	<1.2	1.2
127-18-4	Tetrachloroethene	<2.5	2.5
108-88-3	Toluene	<2.5	2.5
71-55-6	1,1,1-Trichloroethane	<2.5	2.5
79-00-5	1,1,2-Trichloroethane	<2.5	2.5
79-01-6	Trichloroethene	**250**	2.5
75-01-4	Vinyl Chloride	<2.5	2.5
1330-20-7	Xylene (Total)	<7.5	7.5

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**98-245A**	Sampled:	8/14/14 9:05		
Lab Sample ID:	**1408279-16**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	2.5	Analyzed:	8/18/14 18:59	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*104*	*85-118*
1,2-Dichloroethane-d4	*102*	*87-122*
Toluene-d8	*99*	*85-113*
4-Bromofluorobenzene	*100*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-28A**	Sampled:	8/14/14 9:25		
Lab Sample ID:	**1408279-17**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 19:26	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**130**	1.0
156-60-5	trans-1,2-Dichloroethene	**16**	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**1.3**	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-28A**	Sampled:	8/14/14 9:25		
Lab Sample ID:	**1408279-17**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 19:26	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*106*	*85-118*
1,2-Dichloroethane-d4	*103*	*87-122*
Toluene-d8	*102*	*85-113*
4-Bromofluorobenzene	*99*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-28B**	Sampled:	8/14/14 9:45		
Lab Sample ID:	**1408279-18**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 19:53	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
*110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**24**	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**6.9**	1.0
75-01-4	Vinyl Chloride	**3.1**	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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*See Statement of Data Qualifications

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-28B**	Sampled:	8/14/14 9:45		
Lab Sample ID:	**1408279-18**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 10:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/18/14 19:53	By:	BAG
QC Batch:	1408503	Analytical Batch:	4H19003		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*103*	*85-118*
1,2-Dichloroethane-d4	*100*	*87-122*
Toluene-d8	*99*	*85-113*
4-Bromofluorobenzene	*100*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-21A**	Sampled:	8/14/14 10:10		
Lab Sample ID:	**1408279-19**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 22:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/19/14 0:26	By:	BAG
QC Batch:	1408521	Analytical Batch:	4H19025		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**1.6**	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-21A**	Sampled:	8/14/14 10:10		
Lab Sample ID:	**1408279-19**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 22:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/19/14 0:26	By:	BAG
QC Batch:	1408521	Analytical Batch:	4H19025		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*102*	*85-118*
1,2-Dichloroethane-d4	*102*	*87-122*
Toluene-d8	*100*	*85-113*
4-Bromofluorobenzene	*99*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-21B**	Sampled:	8/14/14 10:40		
Lab Sample ID:	**1408279-20**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 22:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/19/14 0:54	By:	BAG
QC Batch:	1408521	Analytical Batch:	4H19025		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	**13**	1.0
156-60-5	trans-1,2-Dichloroethene	**2.5**	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	**57**	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**83-21B**	Sampled:	8/14/14 10:40		
Lab Sample ID:	**1408279-20**	Sampled By:	RDM		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 22:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/19/14 0:54	By:	BAG
QC Batch:	1408521	Analytical Batch:	4H19025		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*103*	*85-118*
1,2-Dichloroethane-d4	*101*	*87-122*
Toluene-d8	*98*	*85-113*
4-Bromofluorobenzene	*99*	*82-110*

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**Trip Blank TM3186**	Sampled:	8/14/14 0:00		
Lab Sample ID:	**1408279-21**	Sampled By:	TML		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 22:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/19/14 1:21	By:	BAG
QC Batch:	1408521	Analytical Batch:	4H19025		

Volatile Organic Compounds by EPA Method 8260B

CAS Number	Analyte	Analytical Result	RL
67-64-1	Acetone	<5.0	5.0
71-43-2	Benzene	<1.0	1.0
75-27-4	Bromodichloromethane	<0.25	0.25
75-15-0	Carbon Disulfide	<5.0	5.0
56-23-5	Carbon Tetrachloride	<1.0	1.0
108-90-7	Chlorobenzene	<1.0	1.0
110-75-8	2-Chloroethyl Vinyl Ether	<5.0	5.0
67-66-3	Chloroform	<0.25	0.25
74-87-3	Chloromethane	<1.0	1.0
95-50-1	1,2-Dichlorobenzene	<1.0	1.0
106-46-7	1,4-Dichlorobenzene	<1.0	1.0
75-34-3	1,1-Dichloroethane	<1.0	1.0
107-06-2	1,2-Dichloroethane	<1.0	1.0
75-35-4	1,1-Dichloroethene	<1.0	1.0
156-59-2	cis-1,2-Dichloroethene	<1.0	1.0
156-60-5	trans-1,2-Dichloroethene	<1.0	1.0
78-87-5	1,2-Dichloropropane	<1.0	1.0
100-41-4	Ethylbenzene	<1.0	1.0
591-78-6	2-Hexanone	<5.0	5.0
75-09-2	Methylene Chloride	<1.0	1.0
78-93-3	2-Butanone (MEK)	<5.0	5.0
100-42-5	Styrene	<1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	<0.50	0.50
127-18-4	Tetrachloroethene	<1.0	1.0
108-88-3	Toluene	<1.0	1.0
71-55-6	1,1,1-Trichloroethane	<1.0	1.0
79-00-5	1,1,2-Trichloroethane	<1.0	1.0
79-01-6	Trichloroethene	<1.0	1.0
75-01-4	Vinyl Chloride	<1.0	1.0
1330-20-7	Xylene (Total)	<3.0	3.0

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TRIMATRIX LABORATORIES

ANALYTICAL REPORT

Client:	**Prairie Ronde Realty Company**	Work Order:	**1408279**		
Project:	NCP Dowagiac, MI	Description:	Laboratory Services		
Client Sample ID:	**Trip Blank TM3186**	Sampled:	8/14/14 0:00		
Lab Sample ID:	**1408279-21**	Sampled By:	TML		
Matrix:	Water	Received:	8/15/14 8:30		
Unit:	ug/L	Prepared:	8/18/14 22:00	By:	BAG
Dilution Factor:	1	Analyzed:	8/19/14 1:21	By:	BAG
QC Batch:	1408521	Analytical Batch:	4H19025		

Volatile Organic Compounds by EPA Method 8260B (Continued)

CAS Number	Analyte	Analytical Result	RL

Surrogates:	***% Recovery***	***Control Limits***
Dibromofluoromethane	*104*	*85-118*
1,2-Dichloroethane-d4	*102*	*87-122*
Toluene-d8	*101*	*85-113*
4-Bromofluorobenzene	*98*	*82-110*

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Volatile Organic Compounds by EPA Method 8260B

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL

QC Batch: 1408503 5030B Aqueous Purge & Trap/USEPA-8260B

Method Blank Analyzed: 08/18/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19003

Acetone	<5.0				--	5.0
Benzene	<1.0					1.0
Bromodichloromethane	<0.25					0.25
Carbon Disulfide	<5.0				--	5.0
Carbon Tetrachloride	<1.0					1.0
Chlorobenzene	<1.0				--	1.0
2-Chloroethyl Vinyl Ether	<5.0					5.0
Chloroform	<0.25					0.25
Chloromethane	<1.0					1.0
1,2-Dichlorobenzene	<1.0				--	1.0
1,4-Dichlorobenzene	<1.0				--	1.0
1,1-Dichloroethane	<1.0					1.0
1,2-Dichloroethane	<1.0					1.0
1,1-Dichloroethene	<1.0					1.0
cis-1,2-Dichloroethene	<1.0					1.0
trans-1,2-Dichloroethene	<1.0					1.0
1,2-Dichloropropane	<1.0					1.0
Ethylbenzene	<1.0				--	1.0
2-Hexanone	<5.0					5.0
Methylene Chloride	<1.0					1.0
2-Butanone (MEK)	<5.0					5.0
Styrene	<1.0					1.0
1,1,2,2-Tetrachloroethane	<0.50					0.50
Tetrachloroethene	<1.0					1.0
Toluene	<1.0					1.0
1,1,1-Trichloroethane	<1.0					1.0
1,1,2-Trichloroethane	<1.0					1.0
Trichloroethene	<1.0					1.0
Vinyl Chloride	<1.0					1.0
Xylene (Total)	<3.0					3.0
Surrogates:						
Dibromofluoromethane				*101*	*85-118*	
1,2-Dichloroethane-d4				*100*	*87-122*	

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Volatile Organic Compounds by EPA Method 8260B (Continued)

QC Batch: 1408503 (Continued) 5030B Aqueous Purge & Trap/USEPA-8260B

Method Blank (Continued) Analyzed: 08/18/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19003

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Surrogates (Continued):								
Toluene-d8				*100*	*85-113*			
4-Bromofluorobenzene				*99*	*82-110*			

Laboratory Control Sample Analyzed: 08/18/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19003

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Benzene		40.0	**40.3**	101	84-119	--		1.0
Chlorobenzene		40.0	**39.6**	99	84-118	--		1.0
1,1-Dichloroethene		40.0	**40.0**	100	77-123	--		1.0
Toluene		40.0	**40.3**	101	85-118	--		1.0
Trichloroethene		40.0	**42.3**	106	82-119	--		1.0
Surrogates:								
Dibromofluoromethane				*100*	*85-118*			
1,2-Dichloroethane-d4				*97*	*87-122*			
Toluene-d8				*98*	*85-113*			
4-Bromofluorobenzene				*98*	*82-110*			

Matrix Spike 1408279-15 96-203A Analyzed: 08/18/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19003

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Benzene	<5.0	200	**205**	102	80-129	--		5.0
Chlorobenzene	<5.0	200	**198**	99	80-121	--		5.0
1,1-Dichloroethene	<5.0	200	**204**	102	74-134	--		5.0
Toluene	<5.0	200	**204**	102	79-129	--		5.0
Trichloroethene	580	200	**720**	**70**	75-127	--		5.0
Surrogates:								
Dibromofluoromethane				*103*	*85-118*			
1,2-Dichloroethane-d4				*99*	*87-122*			
Toluene-d8				*98*	*85-113*			
4-Bromofluorobenzene				*100*	*82-110*			

Matrix Spike Duplicate 1408279-15 96-203A Analyzed: 08/18/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19003

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Benzene	<5.0	200	**212**	106	80-129	3	9	5.0

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Volatile Organic Compounds by EPA Method 8260B (Continued)

QC Batch: 1408503 (Continued) 5030B Aqueous Purge & Trap/USEPA-8260B

Matrix Spike Duplicate (Continued) 1408279-15 96-203A — Analyzed: 08/18/2014 By: BAG
Unit: ug/L — Analytical Batch: 4H19003

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Chlorobenzene	<5.0	200	**204**	102	80-121	3	8	5.0
1,1-Dichloroethene	<5.0	200	**213**	107	74-134	4	11	5.0
Toluene	<5.0	200	**208**	104	79-129	2	9	5.0
Trichloroethene	580	200	**720**	**70**	75-127	0.05	10	5.0
Surrogates:								
Dibromofluoromethane				*101*	*85-118*			
1,2-Dichloroethane-d4				*99*	*87-122*			
Toluene-d8				*99*	*85-113*			
4-Bromofluorobenzene				*98*	*82-110*			

QC Batch: 1408521 5030B Aqueous Purge & Trap/USEPA-8260B

Method Blank — Analyzed: 08/18/2014 By: BAG
Unit: ug/L — Analytical Batch: 4H19025

Acetone	<5.0	--	5.0
Benzene	<1.0		1.0
Bromodichloromethane	<0.25		0.25
Carbon Disulfide	<5.0	--	5.0
Carbon Tetrachloride	<1.0		1.0
Chlorobenzene	<1.0		1.0
2-Chloroethyl Vinyl Ether	<5.0		5.0
Chloroform	<0.25		0.25
Chloromethane	<1.0		1.0
1,2-Dichlorobenzene	<1.0	--	1.0
1,4-Dichlorobenzene	<1.0	--	1.0
1,1-Dichloroethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
cis-1,2-Dichloroethene	<1.0		1.0
trans-1,2-Dichloroethene	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
Ethylbenzene	<1.0	--	1.0
2-Hexanone	<5.0		5.0
Methylene Chloride	<1.0	--	1.0

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL

QC Batch: 1408521 (Continued) 5030B Aqueous Purge & Trap/USEPA-8260B

Method Blank (Continued) Analyzed: 08/18/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19025

2-Butanone (MEK)			<5.0				5.0
Styrene			<1.0				1.0
1,1,2,2-Tetrachloroethane			<0.50				0.50
Tetrachloroethene			<1.0				1.0
Toluene			<1.0				1.0
1,1,1-Trichloroethane			<1.0				1.0
1,1,2-Trichloroethane			<1.0				1.0
Trichloroethene			<1.0				1.0
Vinyl Chloride			<1.0				1.0
Xylene (Total)			<3.0				3.0
Surrogates:							
Dibromofluoromethane				*104*	*85-118*		
1,2-Dichloroethane-d4				*102*	*87-122*		
Toluene-d8				*99*	*85-113*		
4-Bromofluorobenzene				*99*	*82-110*		

Laboratory Control Sample Analyzed: 08/18/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19025

Benzene	40.0	**41.5**		104	84-119	--	1.0
Chlorobenzene	40.0	**40.2**		100	84-118	--	1.0
1,1-Dichloroethene	40.0	**42.0**		105	77-123	--	1.0
Toluene	40.0	**40.8**		102	85-118	--	1.0
Trichloroethene	40.0	**42.6**		107	82-119	--	1.0
Surrogates:							
Dibromofluoromethane				*101*	*85-118*		
1,2-Dichloroethane-d4				*101*	*87-122*		
Toluene-d8				*99*	*85-113*		
4-Bromofluorobenzene				*100*	*82-110*		

QC Batch: 1408544 5030B Aqueous Purge & Trap/USEPA-8260B

Method Blank Analyzed: 08/19/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19054

Acetone			<5.0			--	5.0

Continued on next page

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TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL

QC Batch: 1408544 (Continued) 5030B Aqueous Purge & Trap/USEPA-8260B

Method Blank (Continued) Analyzed: 08/19/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19054

Benzene	<1.0			1.0
Bromodichloromethane	<0.25			0.25
Carbon Disulfide	<5.0		--	5.0
Carbon Tetrachloride	<1.0			1.0
Chlorobenzene	<1.0		--	1.0
2-Chloroethyl Vinyl Ether	<5.0			5.0
Chloroform	<0.25			0.25
Chloromethane	<1.0			1.0
1,2-Dichlorobenzene	<1.0		--	1.0
1,4-Dichlorobenzene	<1.0		--	1.0
1,1-Dichloroethane	<1.0			1.0
1,2-Dichloroethane	<1.0			1.0
1,1-Dichloroethene	<1.0			1.0
cis-1,2-Dichloroethene	<1.0			1.0
trans-1,2-Dichloroethene	<1.0			1.0
1,2-Dichloropropane	<1.0			1.0
Ethylbenzene	<1.0		--	1.0
2-Hexanone	<5.0			5.0
Methylene Chloride	<1.0			1.0
2-Butanone (MEK)	<5.0			5.0
Styrene	<1.0			1.0
1,1,2,2-Tetrachloroethane	<0.50			0.50
Tetrachloroethene	<1.0			1.0
Toluene	<1.0			1.0
1,1,1-Trichloroethane	<1.0			1.0
1,1,2-Trichloroethane	<1.0			1.0
Trichloroethene	<1.0			1.0
Vinyl Chloride	<1.0			1.0
Xylene (Total)	<3.0			3.0
Surrogates:				
Dibromofluoromethane		*103*	*85-118*	
1,2-Dichloroethane-d4		*103*	*87-122*	
Toluene-d8		*100*	*85-113*	

Continued on next page

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Individual sample results relate only to the sample tested.

TRIMATRIX LABORATORIES

QUALITY CONTROL REPORT

Volatile Organic Compounds by EPA Method 8260B (Continued)

QC Batch: 1408544 (Continued) 5030B Aqueous Purge & Trap/USEPA-8260B

Method Blank (Continued) Analyzed: 08/19/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19054

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Surrogates (Continued):								
4-Bromofluorobenzene				*100*	*82-110*			

Laboratory Control Sample Analyzed: 08/19/2014 By: BAG
Unit: ug/L Analytical Batch: 4H19054

Analyte	Sample Conc.	Spike Qty.	Result	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
Benzene		40.0	**41.1**	103	84-119	--		1.0
Chlorobenzene		40.0	**40.2**	101	84-118	--		1.0
1,1-Dichloroethene		40.0	**41.1**	103	77-123	--		1.0
Toluene		40.0	**40.6**	102	85-118	--		1.0
Trichloroethene		40.0	**42.3**	106	82-119	--		1.0
Surrogates:								
Dibromofluoromethane				*100*	*85-118*			
1,2-Dichloroethane-d4				*100*	*87-122*			
Toluene-d8				*100*	*85-113*			
4-Bromofluorobenzene				*101*	*82-110*			

US EPA ARCHIVE DOCUMENT

TRIMATRIX LABORATORIES

5560 Corporate Exchange Court SE
Grand Rapids, MI 49512
Phone (616) 975-4500 Fax (616) 942-7463
www.trimatrixlabs.com

Chain of Custody Record

COC No. 148627

Pg. 1 of 2

For Lab Use Only
Cart
VOA Rack/Tray: 157, 145 B
Receipt Log No.: 3-20
Project Chemist
Work Order No.: 1408279

Client Name: R. DAVID MURSCH
Address: 104 RIVERCLIFF DR
City, State Zip: CONNELLY SPRINGS NC 28612
Phone/Fax
Email: davidmursch@earthlink.net

Project Name: PRR
Client Project No. / P.O. No.: 96-01-651
Invoice To: PRR ☐ Client ☒ Other (comments)
Contact/Report To: RDM

Analyses Requested: 8260 B

Container Type (corresponds to Container Packing List): 1
Number of Containers Submitted

PRESERVATIVES
A NONE pH~7
B HNO_3 pH<2
C H_2SO_4 pH<2
D 1+1 HCl pH<2
E NaOH pH>12
F ZnAc/NaOH pH>9
G MeOH
H Other (note below)

Schedule	Matrix Code	Sample Number		Field Sample ID	Cooler ID	Sample Date	Sample Time	COMP	GRAB	Matrix		total	Sample Comments
		01	1	06-20/1	TM 3186	8-13-14	1530		✓	W	2		
		02	2	06-20/2			1545		✓	W	2		
		03	3	83-17B			1610		✓	W	2		
		04	4	02-02			1640		✓	W	2		
		05	5	83-19A			1725		✓	W	2		
		06	6	83-14B			1705		✓	W	2		
		07	7	05-16			1755		✓	W	2		
		08	8	02-03			1815		✓	W	2		
		09	9	02-04			1835		✓	W	2		
		10	10	06-17 /1		8-14-14	0900		✓	W	2		

Sampled By (print): R. DAVID MURSCH
Sampler's Signature: R. David Mursch
Company

How Shipped? Hand ___ Carrier Fed Ex
Tracking No.

Comments

1. Relinquished By	Date	Time	2. Relinquished By	Date	Time	3. Relinquished By	Date	Time

1. Received By	Date	Time	2. Received By	Date	Time	Received For Lab By	Date	Time
						[illegible]	8/15/14	0830

WHITE COPY - REPORT YELLOW COPY - LABORATORY PINK COPY - FIELD

TRIMATRIX LABORATORIES

5560 Corporate Exchange Court SE
Grand Rapids, MI 49512
Phone (616) 975-4500 Fax (616) 942-7463
www.trimatrixlabs.com

Chain of Custody Record

COC No. 148628

Pg. 2 of 2

For Lab Use Only
Cart
VOA Rack/Tray: 157, 145 B
Receipt Log No.: 3-20
Project Chemist
Work Order No.: 1401279

Client Name: R. DAVID MURSCH
Address: 104 RIVERCLIFF DRIVE
City, State Zip: CONNELLY SPRINGS, NC 28612
Phone/Fax
Email: davidmursch@earthlink.net

Project Name: PRR
Client Project No. / P.O. No.: 96-01 GSI
Invoice To: PRR ☐ Client ☑ Other (comments)
Contact/Report To: RDM

Analyses Requested: 8260D

Container Type (corresponds to Container Packing List): 1

PRESERVATIVES
A NONE pH~7
B HNO_3 pH<2
C H_2SO_4 pH<2
D 1+1 HCl pH<2
E NaOH pH>12
F ZnAc/NaOH pH>9
G MeOH
H Other (note below)

Schedule	Matrix Code	Sample Number	Field Sample ID	Cooler ID	Sample Date	Sample Time	COMP	GRAB	Matrix	Number of Containers Submitted	Total	Sample Comments
		11	1 06-17/2	TM 3184	8-14-14	0715		✓	W	2		
		12	2 05-15			0730		✓	W	2		
		13	3 13-224 A			0800		✓	W	2		
		14	4 98-224 B			0815		✓	W	2		
		15	5 96-203 A			0835		✓	W	2		
		16	6 98-245 A			0905		✓	W	2		
		17	7 83-28 A			0925		✓	W	2		
		18	8 83-28 B			0945		✓	W	2		
		19	9 83-21 A			1010		✓	W	2		
		20	10 83-21 B			1040		✓	W	2		
			TRIP BLANK					✓	W	1		

Sampled By (print): R. DAVID MURSCH
How Shipped? Hand ___ Carrier Fed Ex
Sampler's Signature: R. David Mursch
Company
Tracking No.

1. Relinquished By	Date	Time	2. Relinquished By	Date	Time	3. Relinquished By	Date	Time

1. Received By	Date	Time	2. Received By	Date	Time	Received for Lab By	Date	Time
						[signature]	8/15/14	0830

WHITE COPY - REPORT YELLOW COPY - LABORATORY PINK COPY - FIELD

SAMPLE RECEIVING / LOG-IN CHECKLIST

TRIMATRIX LABORATORIES

Client: R David Muersch
Receipt Record Page/Line #: 3-20
Work Order #: 1408279
New / Add To
Project Chemist:
Sample #s

Recorded by (initials/date): Sc 8/15/14
☑ Cooler ☐ Box ☐ Other
Qty Received: 1
Thermometer Used: ☑ IR Gun (#202) ☐ Digital Thermometer (#54) ☐ Other (#_____)
☐ See Additional Cooler Information Form

Cooler #	Time	Custody Seals	Coolant Type	Coolant Location	Temp Blank Present	If Present, Temperature Blank Location is
Tm 3186	1251	☑ None ☐ Present / Intact ☐ Present / Not Intact	☑ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None	(Dispersed) Top / Middle / Bottom	☐ Yes ☐ No	☐ Representative ☐ Not Representative
		☐ None ☐ Present / Intact ☐ Present / Not Intact	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None	Dispersed / Top / Middle / Bottom	☐ Yes ☐ No	☐ Representative ☐ Not Representative
		☐ None ☐ Present / Intact ☐ Present / Not Intact	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None	Dispersed / Top / Middle / Bottom	☐ Yes ☐ No	☐ Representative ☐ Not Representative
		☐ None ☐ Present / Intact ☐ Present / Not Intact	☐ Loose Ice ☐ Bagged Ice ☐ Blue Ice ☐ None	Dispersed / Top / Middle / Bottom	☐ Yes ☐ No	☐ Representative ☐ Not Representative

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:	1.4	-	1.4
Sample 1:	4.9	-	4.9
Sample 2:	2.4	-	2.4
Sample 3:	2.4	-	2.4
3 Sample Average °C:	3.2		

☑ Cooler ID on COC?
☑ VOC Trip Blank received?

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			
3 Sample Average °C:			

☐ Cooler ID on COC?
☐ VOC Trip Blank received?

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			
3 Sample Average °C:			

☐ Cooler ID on COC?
☐ VOC Trip Blank received?

	Observed °C	Correction Factor °C	Actual °C
Temp Blank:			
Sample 1:			
Sample 2:			
Sample 3:			
3 Sample Average °C:			

☐ Cooler ID on COC?
☐ VOC Trip Blank received?

If any shaded areas checked, complete Sample Receiving Non-Conformance and/or Inventory Form

Paperwork Received

Yes	No	
☑	☐	Chain of Custody record(s)? If No, Initiated By _____
☑		Received for Lab Signed/Date/Time?
☑	☐	Shipping document?
☐	☑	Other _____

COC Information

☑ TriMatrix COC ☐ Other 148627, 148628

COC ID Numbers:

Check Sample Preservation

N/A	Yes	No	
	☐	☑	Temperature Blank **OR** average sample temperature, ≥6° C?
☑	☐	☐	If either is ≥6° C, was thermal preservation required?
☑	☐		If "Yes", Project Chemist Approval Initials: _____
☑	☐		If "Yes" Completed Non Con Cooler - Cont Inventory Form?
☑	☐		Completed Sample Preservation Verification Form?
☑	☐	☐	Samples chemically preserved correctly?
☑	☐		If "No", added orange tag?
	☐	☑	Received pre-preserved VOC soils?

☐ MeOH ☐ Na_2SO_4

Check COC for Accuracy

Yes	No	
☑	☐	Analysis Requested?
☑	☐	Sample ID matches COC?
☑	☐	Sample Date and Time matches COC?
☑		Container type completed on COC?
☑	☐	All container types indicated are received?

Check for Short Hold-Time Prep/Analyses

☐ Bacteriological
☐ Air Bags
☐ EnCores / Methanol Pre-Preserved
☐ Formaldehyde/Aldehyde
☐ Green-tagged containers
☐ Yellow/White-tagged 1 L ambers (SV Prep-Lab)

AFTER HOURS ONLY:
COPIES OF COC TO LAB AREA(S)
☑ NONE RECEIVED
☐ RECEIVED, COCs TO LAB(S)

Sample Condition Summary

N/A	Yes	No	
	☐	☑	Broken containers/lids?
	☐	☑	Missing or incomplete labels?
	☐	☑	Illegible information on labels?
	☐	☑	Low volume received?
	☐	☑	Inappropriate or non-TriMatrix containers received?
☐	☐	☑	VOC vials / TOX containers have headspace?
☐	☐	☑	Extra sample locations / containers not listed on COC?

Notes

☐ Trip Blank received ☐ Trip Blank not listed on COC

Cooler Received (Date/Time)	Paperwork Delivered (Date/Time)	≤1 Hour Goal Met?
8/15/14 0830	8/15/14 1305	Yes (No)